SQL SERVER – 2008 – Interview Questions and Answers – Part 1

September 12, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**1) General Questions of SQL SERVER**

**What is RDBMS?**

Relational Data Base Management Systems (RDBMS) are database management systems that maintain data records and indices in tables. Relationships may be created and maintained across and among the data and tables. In a relational database, relationships between data items are expressed by means of tables. Interdependencies among these tables are expressed by data values rather than by pointers. This allows a high degree of data independence. An RDBMS has the capability to recombine the data items from different files, providing powerful tools for data usage. ([Read More Here](http://blog.sqlauthority.com/2008/06/27/sql-server-difference-between-dbms-and-rdbms/))

**What are the properties of the Relational tables?**

Relational tables have six properties:

* Values are atomic.
* Column values are of the same kind.
* Each row is unique.
* The sequence of columns is insignificant.
* The sequence of rows is insignificant.
* Each column must have a unique name.

**What is Normalization?**

Database normalization is a data design and organization process applied to data structures based on rules that help building relational databases. In relational database design, the process of organizing data to minimize redundancy is called normalization. Normalization usually involves dividing a database into two or more tables and defining relationships between the tables. The objective is to isolate data so that additions, deletions, and modifications of a field can be made in just one table and then propagated through the rest of the database via the defined relationships.

**What are different normalization forms?**

***1NF: Eliminate Repeating Groups***

Make a separate table for each set of related attributes, and give each table a primary key. Each field contains at most one value from its attribute domain.

***2NF: Eliminate Redundant Data***

If an attribute depends on only part of a multi-valued key, remove it to a separate table.

***3NF: Eliminate Columns Not Dependent On Key***

If attributes do not contribute to a description of the key, remove them to a separate table. All attributes must be directly dependent on the primary key. ([Read More Here](http://blog.sqlauthority.com/2007/11/26/sql-server-rules-of-third-normal-form-and-normalization-advantage-3nf/))

***BCNF: Boyce-Codd Normal Form***

If there are non-trivial dependencies between candidate key attributes, separate them out into distinct tables.

***4NF: Isolate Independent Multiple Relationships***

No table may contain two or more 1:n or n:m relationships that are not directly related.

***5NF: Isolate Semantically Related Multiple Relationships***

There may be practical constrains on information that justify separating logically related many-to-many relationships.

***ONF: Optimal Normal Form***

A model limited to only simple (elemental) facts, as expressed in Object Role Model notation.

***DKNF: Domain-Key Normal Form***

A model free from all modification anomalies is said to be in DKNF.

Remember, these normalization guidelines are cumulative. For a database to be in 3NF, it must first fulfill all the criteria of a 2NF and 1NF database.

**What is De-normalization?**

De-normalization is the process of attempting to optimize the performance of a database by adding redundant data. It is sometimes necessary because current DBMSs implement the relational model poorly. A true relational DBMS would allow for a fully normalized database at the logical level, while providing physical storage of data that is tuned for high performance. De-normalization is a technique to move from higher to lower normal forms of database modeling in order to speed up database access.

**What is Stored Procedure?**

A stored procedure is a named group of SQL statements that have been previously created and stored in the server database. Stored procedures accept input parameters so that a single procedure can be used over the network by several clients using different input data. And when the procedure is modified, all clients automatically get the new version. Stored procedures reduce network traffic and improve performance. Stored procedures can be used to help ensure the integrity of the database.

e.g. sp\_helpdb, sp\_renamedb, sp\_depends etc.

**What is Trigger?**

A trigger is a SQL procedure that initiates an action when an event (INSERT, DELETE or UPDATE) occurs. Triggers are stored in and managed by the DBMS. Triggers are used to maintain the referential integrity of data by changing the data in a systematic fashion. A trigger cannot be called or executed; DBMS automatically fires the trigger as a result of a data modification to the associated table. Triggers can be viewed as similar to stored procedures in that both consist of procedural logic that is stored at the database level. Stored procedures, however, are not event-drive and are not attached to a specific table as triggers are. Stored procedures are explicitly executed by invoking a CALL to the procedure while triggers are implicitly executed. In addition, triggers can also execute stored procedures.

*Nested Trigger*: A trigger can also contain INSERT, UPDATE and DELETE logic within itself, so when the trigger is fired because of data modification it can also cause another data modification, thereby firing another trigger. A trigger that contains data modification logic within itself is called a nested trigger. ([Read More Here](http://blog.sqlauthority.com/2007/07/24/sql-server-2005-server-and-database-level-ddl-triggers-examples-and-explanation/))

**What is View?**

A simple view can be thought of as a subset of a table. It can be used for retrieving data, as well as updating or deleting rows. Rows updated or deleted in the view are updated or deleted in the table the view was created with. It should also be noted that as data in the original table changes, so does data in the view, as views are the way to look at part of the original table. The results of using a view are not permanently stored in the database. The data accessed through a view is actually constructed using standard T-SQL select command and can come from one to many different base tables or even other views.

**What is Index?**

An index is a physical structure containing pointers to the data. Indices are created in an existing table to locate rows more quickly and efficiently. It is possible to create an index on one or more columns of a table, and each index is given a name. The users cannot see the indexes; they are just used to speed up queries. Effective indexes are one of the best ways to improve performance in a database application. A table scan happens when there is no index available to help a query. In a table scan SQL Server examines every row in the table to satisfy the query results. Table scans are sometimes unavoidable, but on large tables, scans have a terrific impact on performance.

**What is a Linked Server?**

Linked Servers is a concept in SQL Server by which we can add other SQL Server to a Group and query both the SQL Server dbs using T-SQL Statements. With a linked server, you can create very clean, easy to follow, SQL statements that allow remote data to be retrieved, joined and combined with local data. Stored Procedure sp\_addlinkedserver, sp\_addlinkedsrvlogin will be used add new Linked Server. ([Read More Here](http://blog.sqlauthority.com/2007/10/06/sql-server-executing-remote-stored-procedure-calling-stored-procedure-on-linked-server/))

SQL SERVER – 2008 – Interview Questions and Answers – Part 2

September 13, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**1) General Questions of SQL SERVER**

**What is Cursor?**

Cursor is a database object used by applications to manipulate data in a set on a row-by-row basis, instead of the typical SQL commands that operate on all the rows in the set at one time.

In order to work with a cursor we need to perform some steps in the following order:

* Declare cursor
* Open cursor
* Fetch row from the cursor
* Process fetched row
* Close cursor
* Deallocate cursor ([Read More Here](http://blog.sqlauthority.com/2008/04/19/sql-server-is-cursor-database-object-or-datatype/))

**What is Collation?**

Collation refers to a set of rules that determine how data is sorted and compared. Character data is sorted using rules that define the correct character sequence, with options for specifying case sensitivity, accent marks, kana character types and character width. ([Read More Here](http://blog.sqlauthority.com/2007/04/24/sql-server-2005-collation-explanation-and-translation/))

**What is Difference between Function and Stored Procedure?**

UDF can be used in the SQL statements anywhere in the WHERE/HAVING/SELECT section where as Stored procedures cannot be. UDFs that return tables can be treated as another rowset. This can be used in JOINs with other tables. Inline UDF’s can be thought of as views that take parameters and can be used in JOINs and other Rowset operations.

**What is sub-query? Explain properties of sub-query?**

Sub-queries are often referred to as sub-selects, as they allow a SELECT statement to be executed arbitrarily within the body of another SQL statement. A sub-query is executed by enclosing it in a set of parentheses. Sub-queries are generally used to return a single row as an atomic value, though they may be used to compare values against multiple rows with the IN keyword.

A subquery is a SELECT statement that is nested within another T-SQL statement. A subquery SELECT statement if executed independently of the T-SQL statement, in which it is nested, will return a resultset. Meaning a subquery SELECT statement can standalone and is not depended on the statement in which it is nested. A subquery SELECT statement can return any number of values, and can be found in, the column list of a SELECT statement, a FROM, GROUP BY, HAVING, and/or ORDER BY clauses of a T-SQL statement. A Subquery can also be used as a parameter to a function call. Basically a subquery can be used anywhere an expression can be used. ([Read More Here](http://blog.sqlauthority.com/2007/09/07/sql-server-correlated-and-noncorrelated-subquery-introduction-explanation-and-example/))

**What are different Types of Join?**

***Cross Join***

A cross join that does not have a WHERE clause produces the Cartesian product of the tables involved in the join. The size of a Cartesian product result set is the number of rows in the first table multiplied by the number of rows in the second table. The common example is when company wants to combine each product with a pricing table to analyze each product at each price.

***Inner Join***

A join that displays only the rows that have a match in both joined tables is known as inner Join.  This is the default type of join in the Query and View Designer.

***Outer Join***

A join that includes rows even if they do not have related rows in the joined table is an Outer Join.  You can create three different outer join to specify the unmatched rows to be included:

* **Left Outer Join:** In Left Outer Join all rows in the first-named table i.e. “left” table, which appears leftmost in the JOIN clause are included. Unmatched rows in the right table do not appear.
* **Right Outer Join:** In Right Outer Join all rows in the second-named table i.e. “right” table, which appears rightmost in the JOIN clause are included. Unmatched rows in the left table are not included.
* **Full Outer Join:** In Full Outer Join all rows in all joined tables are included, whether they are matched or not.

***Self Join***

This is a particular case when one table joins to itself, with one or two aliases to avoid confusion. A self join can be of any type, as long as the joined tables are the same. A self join is rather unique in that it involves a relationship with only one table. The common example is when company has a hierarchal reporting structure whereby one member of staff reports to another. Self Join can be Outer Join or Inner Join. ([Read More Here](http://blog.sqlauthority.com/2007/06/03/sql-server-2005-explanation-and-example-self-join/))

**What are primary keys and foreign keys?**

Primary keys are the unique identifiers for each row. They must contain unique values and cannot be null. Due to their importance in relational databases, Primary keys are the most fundamental of all keys and constraints. A table can have only one Primary key.

Foreign keys are both a method of ensuring data integrity and a manifestation of the relationship between tables.

**What is User Defined Functions? What kind of User-Defined Functions can be created?**

User-Defined Functions allow defining its own T-SQL functions that can accept 0 or more parameters and return a single scalar data value or a table data type.

**CREATE** **FUNCTION** GetStudent(@Rno **INT**)

**RETURNS** **VARCHAR**(50)

**AS**

**BEGIN**

**RETURN** (**SELECT** **Name** **FROM** Student **WHERE** Rno=@Rno)

**END**

Select dbo.GetStudent(44)

*Different Kinds of User-Defined Functions created are:*

***Scalar User-Defined Function***

A Scalar user-defined function returns one of the scalar data types. Text, ntext, image and timestamp data types are not supported. These are the type of user-defined functions that most developers are used to in other programming languages. You pass in 0 to many parameters and you get a return value.

***Inline Table-Value User-Defined Function***

An Inline Table-Value user-defined function returns a table data type and is an exceptional alternative to a view as the user-defined function can pass parameters into a T-SQL select command and in essence provide us with a parameterized, non-updateable view of the underlying tables.

***Multi-statement Table-Value User-Defined Function***

A Multi-Statement Table-Value user-defined function returns a table and is also an exceptional alternative to a view as the function can support multiple T-SQL statements to build the final result where the view is limited to a single SELECT statement. Also, the ability to pass parameters into a TSQL select command or a group of them gives us the capability to in essence create a parameterized, non-updateable view of the data in the underlying tables. Within the create function command you must define the table structure that is being returned. After creating this type of user-defined function, It can be used in the FROM clause of a T-SQL command unlike the behavior found when using a stored procedure which can also return record sets. ([Read Here For Example](http://blog.sqlauthority.com/2007/09/08/sql-server-udf-user-defined-function-get-number-of-days-in-month/))

**What is Identity?**

Identity (or AutoNumber) is a column that automatically generates numeric values. A start and increment value can be set, but most DBA leave these at 1. A GUID column also generates numbers; the value of this cannot be controlled. Identity/GUID columns do not need to be indexed.

**What is DataWarehousing?**

* Subject-oriented, meaning that the data in the database is organized so that all the data elements relating to the same real-world event or object are linked together;
* Time-variant, meaning that the changes to the data in the database are tracked and recorded so that reports can be produced showing changes over time;
* Non-volatile, meaning that data in the database is never over-written or deleted, once committed, the data is static, read-only, but retained for future reporting.
* Integrated, meaning that the database contains data from most or all of an organization’s operational applications, and that this data is made consistent.

SQL SERVER – 2008 – Interview Questions and Answers – Part 3

September 14, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**1) General Questions of SQL SERVER**

**2) Common Questions Asked**

**Which TCP/IP port does SQL Server run on? How can it be changed?**

SQL Server runs on port 1433. It can be changed from the Network Utility TCP/IP properties -> Port number, both on client and the server.

**What are the difference between clustered and a non-clustered index?**([Read More Here](http://blog.sqlauthority.com/2007/04/23/sql-server-understanding-new-index-type-of-sql-server-2005-included-column-index-along-with-clustered-index-and-non-clustered-index/))

***A clustered index*** is a special type of index that reorders the way records in the table are physically stored. Therefore table can have only one clustered index. The leaf nodes of a clustered index contain the data pages.

***A non clustered index*** is a special type of index in which the logical order of the index does not match the physical stored order of the rows on disk. The leaf node of a non clustered index does not consist of the data pages. Instead, the leaf nodes contain index rows.

**What are the different index configurations a table can have?**

A table can have one of the following index configurations:

* No indexes
* A clustered index
* A clustered index and many nonclustered indexes
* A nonclustered index
* Many nonclustered indexes

**What are different types of Collation Sensitivity?**

*Case sensitivity* – A and a, B and b, etc.

*Accent sensitiv*ity – a and á, o and ó, etc.

*Kana Sensitivity* – When Japanese kana characters Hiragana and Katakana are treated differently, it is called Kana sensitive.

*Width sensitivity* – A single-byte character (half-width) and the same character represented as a double-byte character (full-width) are treated differently than it is width sensitive. ([Read More Here](http://blog.sqlauthority.com/2007/04/30/case-sensitive-sql-query-search/))

**What is OLTP (Online Transaction Processing)?**

In OLTP – online transaction processing systems relational database design use the discipline of data modeling and generally follow the Codd rules of data normalization in order to ensure absolute data integrity. Using these rules complex information is broken down into its most simple structures (a table) where all of the individual atomic level elements relate to each other and satisfy the normalization rules.

**What’s the difference between a primary key and a unique key?**

Both primary key and unique key enforces uniqueness of the column on which they are defined. But by default primary key creates a clustered index on the column, where are unique creates a nonclustered index by default. Another major difference is that, primary key doesn’t allow NULLs, but unique key allows one NULL only. ([Read More Here](http://blog.sqlauthority.com/2007/02/05/sql-server-primary-key-constraints-and-unique-key-constraints/))

**What is difference between DELETE & TRUNCATE commands?**

Delete command removes the rows from a table based on the condition that we provide with a WHERE clause. Truncate will actually remove all the rows from a table and there will be no data in the table after we run the truncate command.

***TRUNCATE***

* TRUNCATE is faster and uses fewer system and transaction log resources than DELETE.
* TRUNCATE removes the data by deallocating the data pages used to store the table’s data, and only the page deallocations are recorded in the transaction log.
* TRUNCATE removes all rows from a table, but the table structure, its columns, constraints, indexes and so on, remains. The counter used by an identity for new rows is reset to the seed for the column.
* You cannot use TRUNCATE TABLE on a table referenced by a FOREIGN KEY constraint. Because TRUNCATE TABLE is not logged, it cannot activate a trigger.
* TRUNCATE cannot be rolled back.
* TRUNCATE is DDL Command.
* TRUNCATE Resets identity of the table

***DELETE***

* DELETE removes rows one at a time and records an entry in the transaction log for each deleted row.
* If you want to retain the identity counter, use DELETE instead. If you want to remove table definition and its data, use the DROP TABLE statement.
* DELETE Can be used with or without a WHERE clause
* DELETE Activates Triggers.
* DELETE can be rolled back.
* DELETE is DML Command.
* DELETE does not reset identity of the table.

([Read More Here](http://blog.sqlauthority.com/2007/12/26/sql-server-truncate-cant-be-rolled-back-using-log-files-after-transaction-session-is-closed/))

**When is the use of UPDATE\_STATISTICS command?**

This command is basically used when a large processing of data has occurred. If a large amount of deletions any modification or Bulk Copy into the tables has occurred, it has to update the indexes to take these changes into account. UPDATE\_STATISTICS updates the indexes on these tables accordingly.

**What is the difference between a HAVING CLAUSE and a WHERE CLAUSE?**

They specify a search condition for a group or an aggregate. But the difference is that HAVING can be used only with the SELECT statement. HAVING is typically used in a GROUP BY clause. When GROUP BY is not used, HAVING behaves like a WHERE clause. Having Clause is basically used only with the GROUP BY function in a query whereas WHERE Clause is applied to each row before they are part of the GROUP BY function in a query. ([Read More Here](http://blog.sqlauthority.com/2007/07/04/sql-server-definition-comparison-and-difference-between-having-and-where-clause/))

**What are the properties and different Types of Sub-Queries?**

***Properties of Sub-Query***

* A sub-query must be enclosed in the parenthesis.
* A sub-query must be put in the right hand of the comparison operator, and
* A sub-query cannot contain an ORDER-BY clause.
* A query can contain more than one sub-query.

***Types of Sub-query***

* Single-row sub-query, where the sub-query returns only one row.
* Multiple-row sub-query, where the sub-query returns multiple rows,. and
* Multiple column sub-query, where the sub-query returns multiple columns

**What is SQL Profiler?**

SQL Profiler is a graphical tool that allows system administrators to monitor events in an instance of Microsoft SQL Server. You can capture and save data about each event to a file or SQL Server table to analyze later. For example, you can monitor a production environment to see which stored procedures are hampering performances by executing too slowly.

Use SQL Profiler to monitor only the events in which you are interested. If traces are becoming too large, you can filter them based on the information you want, so that only a subset of the event data is collected. Monitoring too many events adds overhead to the server and the monitoring process and can cause the trace file or trace table to grow very large, especially when the monitoring process takes place over a long period of time.

**What are the authentication modes in SQL Server? How can it be changed?**

Windows mode and Mixed Mode – SQL & Windows.

To change authentication mode in SQL Server click Start, Programs, Microsoft SQL Server and click SQL Enterprise Manager to run SQL Enterprise Manager from the Microsoft SQL Server program group. Select the server then from the Tools menu select SQL Server Configuration Properties, and choose the Security page.

SQL SERVER – 2008 – Interview Questions and Answers – Part 4

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**1) General Questions of SQL SERVER**  
**Which command using Query Analyzer will give you the version of SQL server and operating system?**

SELECT SERVERPROPERTY ('productversion'), SERVERPROPERTY('productlevel'), SERVERPROPERTY ('edition')

**What is SQL Server Agent?**

SQL Server agent plays an important role in the day-to-day tasks of a database administrator (DBA). It is often overlooked as one of the main tools for SQL Server management. Its purpose is to ease the implementation of tasks for the DBA, with its full-function scheduling engine, which allows you to schedule your own jobs and scripts. ([Read More Here](http://blog.sqlauthority.com/2007/02/26/sql-server-whats-new-in-sql-server-agent-for-microsoft-sql-server-2005/))

**Can a stored procedure call itself or recursive stored procedure? How much level SP nesting is possible?**

Yes. Because Transact-SQL supports recursion, you can write stored procedures that call themselves. Recursion can be defined as a method of problem solving wherein the solution is arrived at by repetitively applying it to subsets of the problem. A common application of recursive logic is to perform numeric computations that lend themselves to repetitive evaluation by the same processing steps. Stored procedures are nested when one stored procedure calls another or executes managed code by referencing a CLR routine, type, or aggregate. You can nest stored procedures and managed code references up to 32 levels.

**What is Log Shipping?**

Log shipping is the process of automating the backup of database and transaction log files on a production SQL server, and then restoring them onto a standby server. Enterprise Editions only supports log shipping. In log shipping the transactional log file from one server is automatically updated into the backup database on the other server. If one server fails, the other server will have the same db and can be used this as the Disaster Recovery plan. The key feature of log shipping is that it will automatically backup transaction logs throughout the day and automatically restore them on the standby server at defined interval.

**Name 3 ways to get an accurate count of the number of records in a table?**

SELECT \* FROM table1

SELECT COUNT(\*) FROM table1

SELECT rows FROM sysindexes WHERE id = OBJECT\_ID(table1) AND indid < 2

**What does it mean to have QUOTED\_IDENTIFIER ON? What are the implications of having it OFF?**

When SET QUOTED\_IDENTIFIER is ON, identifiers can be delimited by double quotation marks, and literals must be delimited by single quotation marks. When SET QUOTED\_IDENTIFIER is OFF, identifiers cannot be quoted and must follow all Transact-SQL rules for identifiers. ([Read More Here](http://blog.sqlauthority.com/2007/03/05/sql-server-quoted_identifier-onoff-and-ansi_null-onoff-explanation/))

**What is the difference between a Local and a Global temporary table?**

*A local* temporary table exists only for the duration of a connection or, if defined inside a compound statement, for the duration of the compound statement.

*A global*temporary table remains in the database permanently, but the rows exist only within a given connection. When connection is closed, the data in the global temporary table disappears. However, the table definition remains with the database for access when database is opened next time.

**What is the STUFF function and how does it differ from the REPLACE function?**

STUFF function is used to overwrite existing characters. Using this syntax, STUFF (string\_expression, start, length, replacement\_characters), string\_expression is the string that will have characters substituted, start is the starting position, length is the number of characters in the string that are substituted, and replacement\_characters are the new characters interjected into the string. REPLACE function to replace existing characters of all occurrences. Using the syntax REPLACE (string\_expression, search\_string, replacement\_string), where every incidence of search\_string found in the string\_expression will be replaced with replacement\_string.

**What is PRIMARY KEY?**

A PRIMARY KEY constraint is a unique identifier for a row within a database table. Every table should have a primary key constraint to uniquely identify each row and only one primary key constraint can be created for each table. The primary key constraints are used to enforce entity integrity.

**What is UNIQUE KEY constraint?**

A UNIQUE constraint enforces the uniqueness of the values in a set of columns, so no duplicate values are entered. The unique key constraints are used to enforce entity integrity as the primary key constraints.

**What is FOREIGN KEY?**

A FOREIGN KEY constraint prevents any actions that would destroy links between tables with the corresponding data values. A foreign key in one table points to a primary key in another table. Foreign keys prevent actions that would leave rows with foreign key values when there are no primary keys with that value. The foreign key constraints are used to enforce referential integrity.

**What is CHECK Constraint?**

A CHECK constraint is used to limit the values that can be placed in a column. The check constraints are used to enforce domain integrity.

Check Constraints are very handy to make sure all the data in the table is validated before it enters in the database. ([Read More Here](http://blog.sqlauthority.com/2008/06/22/sql-server-create-check-constraint-on-column/))

**What is NOT NULL Constraint?**

A NOT NULL constraint enforces that the column will not accept null values. The not null constraints are used to enforce domain integrity, as the check constraints.

([Read More Here](http://blog.sqlauthority.com/2007/10/15/sql-server-explanation-and-understanding-not-null-constraint/))

**How to get @@ERROR and @@ROWCOUNT at the same time?**

If @@Rowcount is checked after Error checking statement then it will have 0 as the value of @@Recordcount as it would have been reset. And if @@Recordcount is checked before the error-checking statement then @@Error would get reset. To get @@error and @@rowcount at the same time do both in same statement and store them in local variable. SELECT @RC = @@ROWCOUNT, @ER = @@ERROR

**What is a Scheduled Jobs or What is a Scheduled Tasks?**

Scheduled tasks let user automate processes that run on regular or predictable cycles. User can schedule administrative tasks, such as cube processing, to run during times of slow business activity. User can also determine the order in which tasks run by creating job steps within a SQL Server Agent job. E.g. back up database, Update Stats of Tables. Job steps give user control over flow of execution. If one job fails, user can configure SQL Server Agent to continue to run the remaining tasks or to stop execution.

**What are the advantages of using Stored Procedures?**

* Stored procedure can reduced network traffic and latency, boosting application performance.
* Stored procedure execution plans can be reused, staying cached in SQL Server’s memory, reducing server overhead.
* Stored procedures help promote code reuse.
* Stored procedures can encapsulate logic. You can change stored procedure code without affecting clients.
* Stored procedures provide better security to your data.

**What is a table called, if it has neither Cluster nor Non-cluster Index? What is it used for?**

Unindexed table or Heap. Microsoft Press Books and Book on Line (BOL) refers it as Heap. A heap is a table that does not have a clustered index and, therefore, the pages are not linked by pointers. The IAM pages are the only structures that link the pages in a table together. Unindexed tables are good for fast storing of data. Many times it is better to drop all indexes from table and then do bulk of inserts and to restore those indexes after that.

**Can SQL Servers linked to other servers like Oracle?**

SQL Server can be linked to any server provided it has OLE-DB provider from Microsoft to allow a link. E.g. Oracle has an OLE-DB provider for oracle that Microsoft provides to add it as linked server to SQL Server group

**What is BCP? When does it used?**

BulkCopy is a tool used to copy huge amount of data from tables and views. BCP does not copy the structures same as source to destination. BULK INSERT command helps to import a data file into a database table or view in a user-specified format.

SQL SERVER – 2008 – Interview Questions and Answers – Part 5

September 16, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**What command do we use to rename a db, a table and a column?**

***To rename db***

sp\_renamedb 'oldname' , 'newname'

If someone is using db it will not accept sp\_renmaedb. In that case first bring db to single user using sp\_dboptions. Use sp\_renamedb to rename database. Use sp\_dboptions to bring database to multi user mode.

E.g.

USE master;

GO

EXEC sp\_dboption AdventureWorks, 'Single User', True

GO

EXEC sp\_renamedb 'AdventureWorks', 'AdventureWorks\_New'

GO

EXEC sp\_dboption AdventureWorks, 'Single User', False

GO

***To rename Table***

We can change the table name using sp\_rename as follows,

sp\_rename 'oldTableName' 'newTableName'

E.g.

sp\_RENAME 'Table\_First', 'Table\_Last'  
GO

***To rename Column***

The script for renaming any column :

sp\_rename 'TableName.[OldcolumnName]', 'NewColumnName', 'Column'  
E.g.  
sp\_RENAME 'Table\_First.Name', 'NameChange' , 'COLUMN'  
GO

**What are sp\_configure commands and set commands?**

Use sp\_configure to display or change server-level settings. To change database-level settings, use ALTER DATABASE. To change settings that affect only the current user session, use the SET statement.

E.g.

sp\_CONFIGURE 'show advanced', 0  
GO  
RECONFIGURE  
GO  
sp\_CONFIGURE  
GO

You can run following command and check advance global configuration settings.

sp\_CONFIGURE 'show advanced', 1  
GO  
RECONFIGURE  
GO  
sp\_CONFIGURE  
GO

([Read More Here](http://blog.sqlauthority.com/2008/07/13/sql-server-sp_configure-displays-or-changes-global-configuration-settings/))

**How to implement one-to-one, one-to-many and many-to-many relationships while designing tables?**

One-to-One relationship can be implemented as a single table and rarely as two tables with primary and foreign key relationships. One-to-Many relationships are implemented by splitting the data into two tables with primary key and foreign key relationships.

Many-to-Many relationships are implemented using a junction table with the keys from both the tables forming the composite primary key of the junction table.

**What is an execution plan? When would you use it? How would you view the execution plan?**

An execution plan is basically a road map that graphically or textually shows the data retrieval methods chosen by the SQL Server query optimizer for a stored procedure or ad-hoc query and is a very useful tool for a developer to understand the performance characteristics of a query or stored procedure since the plan is the one that SQL Server will place in its cache and use to execute the stored procedure or query. From within Query Analyzer is an option called “Show Execution Plan” (located on the Query drop-down menu). If this option is turned on it will display query execution plan in separate window when query is ran again.

**How to get the – Retrieve Last Inserted Identity of Record and list there different types?**

## SQL SERVER – @@IDENTITY vs SCOPE\_IDENTITY() vs IDENT\_CURRENT – Retrieve Last Inserted Identity of Record

March 25, 2007 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

**SELECT @@IDENTITY**  
It returns the last IDENTITY value produced on a connection, regardless of the table that produced the value, and regardless of the scope of the statement that produced the value.  
@@IDENTITY will return the last identity value entered into a table in your current session. While @@IDENTITY is limited to the current session, it is not limited to the current scope. If you have a trigger on a table that causes an identity to be created in another table, you will get the identity that was created last, even if it was the trigger that created it.

**SELECT SCOPE\_IDENTITY()**  
It returns the last IDENTITY value produced on a connection and by a statement in the same scope, regardless of the table that produced the value.  
SCOPE\_IDENTITY(), like @@IDENTITY, will return the last identity value created in the current session, but it will also limit it to your current scope as well. In other words, it will return the last identity value that you explicitly created, rather than any identity that was created by a trigger or a user defined function.

**SELECT IDENT\_CURRENT(‘tablename’)**  
It returns the last IDENTITY value produced in a table, regardless of the connection that created the value, and regardless of the scope of the statement that produced the value.  
IDENT\_CURRENT is not limited by scope and session; it is limited to a specified table. IDENT\_CURRENT returns the identity value generated for a specific table in any session and any scope.

*To avoid the potential problems associated with adding a trigger later on, always use SCOPE\_IDENTITY() to return the identity of the recently added row in your T SQL Statement or Stored Procedure.*

SQL SERVER – 2008 – Interview Questions and Answers – Part 6

September 17, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**3) Questions of SQL SERVER 2008**

**What are the basic functions for master, msdb, model, tempdb and resource databases?**

*The****master****database*holds information for all databases located on the SQL Server instance and is the glue that holds the engine together. Because SQL Server cannot start without a functioning masterdatabase, you must administer this database with care.

*The****msdb****database*stores information regarding database backups, SQL Agent information, DTS packages, SQL Server jobs, and some replication information such as for log shipping.

*The****tempdb***holds temporary objects such as global and local temporary tables and stored procedures.

*The****model*** is essentially a template database used in the creation of any new user database created in the instance.

*The****resoure****Database*is a read-only database that contains all the system objects that are included with SQL Server. SQL Server system objects, such as sys.objects, are physically persisted in the Resource database, but they logically appear in the sys schema of every database. The Resource database does not contain user data or user metadata.

**What is Service Broker?**

Service Broker is a message-queuing technology in SQL Server that allows developers to integrate SQL Server fully into distributed applications. Service Broker is feature which provides facility to SQL Server to send an asynchronous, transactional message. it allows a database to send a message to another database without waiting for the response, so the application will continue to function if the remote database is temporarily unavailable. ([Read More Here](http://blog.sqlauthority.com/2008/07/18/sql-server-introduction-to-service-broker/))

**Where SQL server user names and passwords are stored in SQL server?**

They get stored in System Catalog Views sys.server\_principals and sys.sql\_logins.

**What is Policy Management?**

Policy Management in SQL SERVER 2008 allows you to define and enforce policies for configuring and managing SQL Server across the enterprise. Policy-Based Management is configured in SQL Server Management Studio (SSMS).  Navigate to the Object Explorer and expand the Management node and the Policy Management node; you will see the Policies, Conditions, and Facets nodes. ([Read More Here](http://blog.sqlauthority.com/2008/06/13/sql-server-2008-introduction-to-policy-management-enforcing-rules-on-sql-server/))

**What is Replication and Database Mirroring?**

Database mirroring can be used with replication to provide availability for the publication database. Database mirroring involves two copies of a single database that typically reside on different computers. At any given time, only one copy of the database is currently available to clients which are known as the principal database. Updates made by clients to the principal database are applied on the other copy of the database, known as the mirror database. Mirroring involves applying the transaction log from every insertion, update, or deletion made on the principal database onto the mirror database.

**What are Sparse Columns?**

A sparse columnis another tool used to reduce the amount of physical storage used in a database. They are the ordinary columns that have an optimized storage for null values. Sparse columns reduce the space requirements for null values at the cost of more overhead to retrieve nonnull values. ([Read More Here](http://blog.sqlauthority.com/2008/07/10/sql-server-2008-introduction-to-sparse-columns/))

**What does TOP Operator Do?**

The TOP operator is used to specify the number of rows to be returned by a query. The TOP operator has new addition in SQL SERVER 2008 that it accepts variables as well as literal values and can be used with INSERT, UPDATE, and DELETES statements.

**What is CTE?**

CTE is an abbreviation Common Table Expression. A Common Table Expression (CTE) is an expression that can be thought of as a temporary result set which is defined within the execution of a single SQL statement**.**A CTE is similar to a derived table in that it is not stored as an object and lasts only for the duration of the query. ([Read More Here](http://blog.sqlauthority.com/2008/07/28/sql-server-simple-example-of-recursive-cte/))

**What is MERGE Statement?**MERGE is a new feature that provides an efficient way to perform multiple DML operations. In previous versions of SQL Server, we had to write separate statements to INSERT, UPDATE, or DELETE data based on certain conditions, but now, using MERGE statement we can include the logic of such data modifications in one statement that even checks when the data is matched then just update it and when unmatched then insert it. One of the most important advantages of MERGE statement is all the data is read and processed only once.  ([Read More Here](http://blog.sqlauthority.com/2008/08/28/sql-server-2008-introduction-to-merge-statement-one-statement-for-insert-update-delete/))

**What is Filtered Index?**

Filtered Index is used to index a portion of rows in a table that means it applies filter on INDEX which improves query performance, reduce index maintenance costs, and reduce index storage costs compared with full-table indexes. When we see an Index created with some where clause then that is actually a FILTERED INDEX.

**Which are new data types introduced in SQL SERVER 2008?**

***The GEOMETRY Type:***The GEOMETRY data type is a system .NET common language runtime (CLR) data type in SQL Server. This type represents data in a two-dimensional Euclidean coordinate system.

***The GEOGRAPHY Type:*** The GEOGRAPHY datatype’s functions are the same as with GEOMETRY. The difference between the two is that when you specify GEOGRAPHY, you are usually specifying points in terms of latitude and longitude.

***New Date and Time Datatypes:*** SQL Server 2008 introduces four new datatypes related to date and time: DATE, TIME, DATETIMEOFFSET, and DATETIME2.

* ***DATE****:* The new DATE type just stores the date itself. It is based on the Gregorian calendar and handles years from 1 to 9999.
* ***TIME****:* The new TIME (*n*) type stores time with a range of 00:00:00.0000000 through 23:59:59.9999999. The precision is allowed with this type. TIME supports seconds down to 100 nanoseconds. The *n*in TIME (*n*) defines this level of fractional second precision, from 0 to 7 digits of precision.
* ***The DATETIMEOFFSET Type***: DATETIMEOFFSET (*n*) is the time-zone-aware version of a datetime datatype. The name will appear less odd when you consider what it really is: a date + a time + a time-zone offset. The offset is based on how far behind or ahead you are from Coordinated Universal Time (UTC) time.
* ***The DATETIME2 Type***: It is an extension of the datetime type in earlier versions of SQL Server. This new datatype has a date range covering dates from January 1 of year 1 through December 31 of year 9999. This is a definite improvement over the 1753 lower boundary of the datetime datatype. DATETIME2 not only includes the larger date range, but also has a timestamp and the same fractional precision that TIME type provides

**What are the Advantages of using CTE?**

* Using CTE improves the readability and makes maintenance of complex queries easy.
* The query can be divided into separate, simple, logical building blocks which can be then used to build more complex CTEs until final result set is generated.
* CTE can be defined in functions, stored procedures, triggers or even views.
* After a CTE is defined, it can be used as a Table or a View and can SELECT, INSERT, UPDATE or DELETE Data.

SQL SERVER – 2008 – Interview Questions and Answers – Part 7

September 18, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**How can we rewrite sub-queries into simple select statements or with joins?**

Yes we can write using Common Table Expression (CTE). A Common Table Expression (CTE) is an expression that can be thought of as a temporary result set which is defined within the execution of a single SQL statement. A CTE is similar to a derived table in that it is not stored as an object and lasts only for the duration of the query.

E.g.

USE AdventureWorks  
GO  
WITH EmployeeDepartment\_CTE AS (  
SELECT EmployeeID,DepartmentID,ShiftID  
FROM HumanResources.EmployeeDepartmentHistory  
)  
SELECT ecte.EmployeeId,ed.DepartmentID, ed.Name,ecte.ShiftID  
FROM HumanResources.Department ed  
INNER JOIN EmployeeDepartment\_CTE ecte ON ecte.DepartmentID =ed.DepartmentID  
GO

**What is CLR?**

In SQL Server 2008, SQL Server objects such as user-defined functions can be created using such CLR languages. This CLR language support extends not only to user-defined functions, but also to stored procedures and triggers. You can develop such CLR add-ons to SQL Server using Visual Studio 2008.([Read More Here](http://blog.sqlauthority.com/2008/03/14/sql-server-2005-introduction-to-clr-and-integration-to-clr-with-sql-simple-sample-example-of-clr/))

**What are synonyms?**

Synonyms give you the ability to provide alternate names for database objects. You can alias object names; for example, using the Employee table as Emp. You can also shorten names. This is especially useful when dealing with three and four part names; for example, shortening server.database.owner.object to object. ([Read More Here](http://blog.sqlauthority.com/2008/01/07/sql-server-2005-introduction-and-explanation-to-synonym-helpful-t-sql-feature-for-developer/))

**What is LINQ?**

Language Integrated Query (LINQ) adds the ability to query objects using .NET languages. The LINQ to SQL object/relational mapping (O/RM) framework provides the following basic features:

* Tools to create classes (usually called *entities*) mapped to database tables
* Compatibility with LINQ’s standard query operations
* The DataContext class, with features such as entity record monitoring, automatic SQL statement generation, record concurrency detection, and much more

**What is Isolation Levels?**

Transactions specify an isolation level that defines the degree to which one transaction must be isolated from resource or data modifications made by other transactions. Isolation levels are described in terms of which concurrency side-effects, such as dirty reads or phantom reads, are allowed.

Transaction isolation levels control:

* Whether locks are taken when data is read, and what type of locks are requested.
* How long the read locks are held.
* Whether a read operation referencing rows modified by another transaction:
* Blocks until the exclusive lock on the row is freed.
* Retrieves the committed version of the row that existed at the time the statement or transaction started.
* Reads the uncommitted data modification. ([Read More Here](http://blog.sqlauthority.com/2008/08/18/sql-server-detailed-explanation-of-transaction-lock-lock-type-avoid-locks/))

**What is use of EXCEPT Clause?**

**EXCEPT clause is similar to MINUS operation in Oracle.** The EXCEPT query and MINUS query returns all rows in the first query that are not returned in the second query. Each SQL statement within the EXCEPT query and MINUS query must have the same number of fields in the result sets with similar data types. ([Read More Here](http://blog.sqlauthority.com/2008/08/07/sql-server-except-clause-in-sql-server-is-similar-to-minus-clause-in-oracle/))

**What is XPath?**

XPath uses a set of expressions to select nodes to be processed. The most common expression that you’ll use is the location path expression, which returns back a set of nodes called a *node set*. XPath can use both an unabbreviated and an abbreviated syntax. The following is the unabbreviated syntax for a location path:

/axisName::nodeTest[predicate]/axisName::nodeTest[predicate]

**What is NOLOCK?**

Using the NOLOCK query optimizer hint is generally considered good practice in order to improve concurrency on a busy system. When the NOLOCK hint is included in a SELECT statement, no locks are taken when data is read. The result is a Dirty Read, which means that another process could be updating the data at the exact time you are reading it. There are no guarantees that your query will retrieve the most recent data. The advantage to performance is that your reading of data will not block updates from taking place, and updates will not block your reading of data. SELECT statements take Shared (Read) locks. This means that multiple SELECT statements are allowed simultaneous access, but other processes are blocked from modifying the data. The updates will queue until all the reads have completed, and reads requested after the update will wait for the updates to complete. The result to your system is delay (blocking). ([Read More Here](http://blog.sqlauthority.com/2007/04/27/sql-server-2005-locking-hints-and-examples/))

**How would you handle error in SQL SERVER 2008?**

SQL Server now supports the use of TRY…CATCH constructs for providing rich error handling. TRY…CATCH lets us build error handling at the level we need, in the way we need to, by setting a region where if any error occurs, it will break out of the region and head to an error handler. The basic structure is as follows:

BEGIN TRY

<*code*>

END TRY

BEGIN CATCH

<*code*>

END CATCH

So if any error occurs in the TRY block, execution is diverted to the CATCH block, and the error can be dealt.

**What is RAISEERROR?**

RaiseError generates an error message and initiates error processing for the session. RAISERROR can either reference a user-defined message stored in the **sys.messages** catalog view or build a message dynamically. The message is returned as a server error message to the calling application or to an associated CATCH block of a TRY…CATCH construct. ([Read More Here](http://blog.sqlauthority.com/2007/10/03/sql-server-2005-explanation-of-try%E2%80%A6catch-and-error-handling-with-raiseerror-function/))

**How to rebuild Master Databse?**

Master database is system database and it contains information about running server’s configuration. When SQL Server 2005 is installed it usually creates master, model, msdb, tempdb resource and distribution system database by default. Only Master database is the one which is absolutely must have database. Without Master database SQL Server cannot be started. This is the reason it is extremely important to backup Master database.

To rebuild the Master database, Run Setup.exe, verify, and repair a SQL Server instance, and rebuild the system databases. This procedure is most often used to rebuild the **master** database for a corrupted installation of SQL Server.

**What is XML Datatype?**

The **xml** data type lets you store XML documents and fragments in a SQL Server database. An XML fragment is an XML instance that is missing a single top-level element. You can create columns and variables of the **xml** type and store XML instances in them. The **xml** data type and associated methods help integrate XML into the relational framework of SQL Server.

SQL SERVER – 2008 – Interview Questions and Answers – Part 8

September 19, 2008 by [pinaldave](http://blog.sqlauthority.com/author/pinaldave/" \o "Posts by pinaldave)

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**What is Data Compression?**

In SQL SERVE 2008 Data Compression comes in two flavors:

* Row Compression
* Page Compression

**Row Compression**

Row compression changes the format of physical storage of data. It minimize the metadata (column information, length, offsets etc) associated with each record. Numeric data types and fixed length strings are stored in variable-length storage format, just like Varchar.  ([Read More Here](http://blog.sqlauthority.com/2008/07/06/sql-server-2008-introduction-to-row-compression/))

**Page Compression**

Page compression allows common data to be shared between rows for a given page. Its uses the following techniques to compress data:

* Row compression.
* Prefix Compression. For every column in a page duplicate prefixes are identified. These prefixes are saved in compression information headers (CI) which resides after page header. A reference number is assigned to these prefixes and that reference number is replaced where ever those prefixes are being used.

**Dictionary Compression**.

Dictionary compression searches for duplicate values throughout the page and stores them in CI. The main difference between prefix and dictionary compression is that prefix is only restricted to one column while dictionary is applicable to the complete page.

**What is use of DBCC Commands?**

The Transact-SQL programming language provides DBCC statements that act as Database Console Commands for SQL Server.  DBCC commands are used to perform following tasks.

* Maintenance tasks on database, index, or filegroup.
* Tasks that gather and display various types of information.
* Validation operations on a database, table, index, catalog, filegroup, or allocation of database pages.
* Miscellaneous tasks such as enabling trace flags or removing a DLL from memory.

([Read More Here](http://blog.sqlauthority.com/2007/05/15/sql-server-dbcc-commands-list-documented-and-undocumented/))

**How to find tables without Indexes?**

Run following query in Query Editor.

USE <database\_name>;  
GO  
SELECT SCHEMA\_NAME(schema\_id) AS schema\_name  
,name AS table\_name  
FROM sys.tables  
WHERE OBJECTPROPERTY(OBJECT\_ID,'IsIndexed') = 0  
ORDER BY schema\_name, table\_name;  
GO

**How to copy the tables, schema and views from one SQL Server to another?**

There are multiple ways to do this.

1. “Detach Database” from one server and “Attach Database” to another server.
2. Manually script all the objects using SSMS and run the script on new server.
3. Use Wizard of SSMS. ([Read More Here](http://blog.sqlauthority.com/2007/08/21/sql-server-2005-create-script-to-copy-database-schema-and-all-the-objects-stored-procedure-functions-triggers-tables-views-constraints-and-all-other-database-objects/))

**How to copy data from one table to another table?**

There are multiple ways to do this.

***1) INSERT INTO SELECT***

This method is used when table is already created in the database earlier and data is to be inserted into this table from another table. If columns listed in insert clause and select clause are same, they are not required to list them.

***2) SELECT INTO***

This method is used when table is not created earlier and needs to be created when data from one table is to be inserted into newly created table from another table. New table is created with same data types as selected columns.

([Read More Here](http://blog.sqlauthority.com/2007/08/15/sql-server-insert-data-from-one-table-to-another-table-insert-into-select-select-into-table/))

**What is Catalog Views?**

Catalog views return information that is used by the SQL Server Database Engine. Catalog Views are the most general interface to the catalog metadata and provide the most efficient way to obtain, transform, and present customized forms of this information. All user-available catalog metadata is exposed through catalog views.

**What is PIVOT and UNPIVOT?**

*A Pivot Table* can automatically sort, count, and total the data stored in one table or spreadsheet and create a second table displaying the summarized data. The PIVOT operator turns the values of a specified column into column names, effectively rotating a table.

UNPIVOT table is reverse of PIVOT Table. ([Read More Here](http://blog.sqlauthority.com/2008/05/29/sql-server-unpivot-table-example/))

**What is Filestream?**

Filestream allows you to store large objects in the file system and have these files integrated within the database. It enables SQL Server based applications to store unstructured data such as documents, images, audios, videos etc. in the file system. FILESTREAM basically integrates the SQL Server Database Engine with New Technology File System (NTFS); it basically stores the data in varbinary (max) data type. Using this data type, the unstructured data is stored in the NTFS file system and the SQL Server Database Engine manages the link between the Filestream column and the actual file located in the NTFS. Using Transact SQL statements users can insert, update, delete and select the data stored in FILESTREAM enabled tables.

**What is Dirty Read ?**

A dirty read occurs when two operations say, read and write occurs together giving the incorrect or unedited data. Suppose, A has changed a row, but has not committed the changes. B reads the uncommitted data but his view of the data may be wrong so that is Dirty Read.

**What is SQLCMD?**

sqlcmd is enhanced version of the isql and osql and it provides way more functionality than other two options. In other words sqlcmd is better replacement of isql (which will be deprecated eventually) and osql (not included in SQL Server 2005 RTM). sqlcmd can work two modes – i) BATCH and ii) interactive modes. ([Read More](http://blog.sqlauthority.com/2007/09/06/sql-server-2005-introduction-and-explanation-to-sqlcmd/))

**What is Aggregate Functions?**

Aggregate functions perform a calculation on a set of values and return a single value. Aggregate functions ignore NULL values except COUNT function. HAVING clause is used, along with GROUP BY, for filtering query using aggregate values.

Following functions are aggregate functions.

**AVG, MIN, CHECKSUM\_AGG, SUM, COUNT, STDEV, COUNT\_BIG, STDEVP, GROUPING, VAR, MAX, VARP**([Read More Here](http://blog.sqlauthority.com/2008/01/19/sql-server-introduction-to-aggregate-functions/) )

**What do you mean by Table Sample?**TABLESAMPLE allows you to extract a sampling of rows from a table in the FROM clause. The rows retrieved are random and they are not in any order. This sampling can be based on a percentage of number of rows. You can use TABLESAMPLE when only a sampling of rows is necessary for the application instead of a full result set. ([Read More Here](http://blog.sqlauthority.com/2007/05/27/sql-server-2005-limiting-result-sets-by-using-tablesample-examples/))

**What is Row\_Number()?**ROW\_NUMBER() returns a column as an expression that contains the row’s number within the result set. This is only a number used in the context of the result set, if the result changes, the ROW\_NUMBER() will change.

**What are Ranking Functions?**

Ranking functions return a ranking value for each row in a partition. All the ranking functions are non-deterministic. Different Ranking functions are:

***ROW\_NUMBER () OVER ([<partition\_by\_clause>] <order\_by\_clause>)***  
Returns the sequential number of a row within a partition of a result set, starting at 1 for the first row in each partition.

***RANK () OVER ([<partition\_by\_clause>] <order\_by\_clause>)***  
Returns the rank of each row within the partition of a result set.

***DENSE\_RANK () OVER ([<partition\_by\_clause>] <order\_by\_clause>)***  
Returns the rank of rows within the partition of a result set, without any gaps in the ranking. ([Read More Here](http://blog.sqlauthority.com/2007/10/09/sql-server-2005-sample-example-of-ranking-functions-row_number-rank-dense_rank-ntile/) )

**What is the difference between UNION and UNION ALL?**

***UNION***The UNION command is used to select related information from two tables, much like the JOIN command. However, when using the UNION command all selected columns need to be of the same data type. With UNION, only distinct values are selected.

***UNION ALL***The UNION ALL command is equal to the UNION command, except that UNION ALL selects all values.

The difference between Union and Union all is that Union all will not eliminate duplicate rows, instead it just pulls all rows from all tables fitting your query specifics and combines them into a table. ([Read More Here](http://blog.sqlauthority.com/2007/03/10/sql-server-union-vs-union-all-which-is-better-for-performance/))

**What is B-Tree?**

The database server uses a B-tree structure to organize index information. B-Tree generally has following types of index pages or nodes:

* *root node:* A root node contains node pointers to branch nodes which can be only one.
* *branch nodes:* A branch node contains pointers to leaf nodes or other branch nodes which can be two or more.
* *leaf nodes*: A leaf node contains index items and horizontal pointers to other leaf nodes which can be many.

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| Sql server interview questions and answers |
| 1. When is the UPDATE\_STATISTICS command used?  - When the processing of large data is done, this command is used.  - Whenever large number of deletions, modification or copy takes place into the tables, the indexes need to be updated to take care of these changes. UPDATE\_STATISTICS performs this job.  2. Differentiate between a HAVING CLAUSE and a WHERE CLAUSE.  HAVING CLAUSE  - HAVING CLAUSE is used only with the SELECT statement.  - It is generally used in a GROUP BY clause in a query.  - If GROUP BY is not used, HAVING works like a WHERE clause.  WHERE Clause  - It is applied to each row before they become a part of the GROUP BY function in a query.  [**Download SQL Server interview questions and answers pdf**](http://careerride.com/Career-Jobs-Interview-Updates.aspx)  3. What do you understand by a view? What does the WITH CHECK OPTION clause for a view do?  - A view is a virtual table that consists of fields from one or more real tables. - It is usually used to join multiple tables and get the data.  - The WITH CHECK OPTION for a view prevents any modification to the data that does not confirm to the WHERE clause of the view definition. - This allows the data belonging to the view to be updated through the view.  4. Explain query execution plan?  - The optimizer available in SQL Server optimizes the code to be effectively executed.  - A query execution plan shows how this optimizer would run the query. - Query execution plan can be viewed by :  - Using the Show Execution Plan option available in Query Analyzer, - Displaying Estimated Execution Plan on the query dropdown menu,  - Use the SET SHOWPLAN\_TEXT ON command before running a query and capturing the execution plan event in a SQL Server Profiler trace.  5. What is the function of SQL Server Agent Windows service?  - It is a Windows service which handles the tasks scheduled within the SQL Server environment. These tasks are also called as job and are stored with in SQL server. The jobs may run through a trigger, a predefined schedule or on demand.  - This service is very useful in determining why a particular job did not run as intended.  6. Comment on Transactions.  - Using transactions we can group all SQL commands into a single unit.  - The transaction begins with some task and finishes only when all tasks within it are over. - The transaction gets over successfully only when all commands in it are successfully over. Even if one command fails, the whole transaction fails.  - The BEGIN TRANSACTION, ROLLBACK TRANSACTION, and COMMIT TRANSACTION statements are used to work with transactions.  - A group of tasks starts with the begin statement.  - In case of any problem, the rollback command is executed to abort the transaction.  - If all the tasks run successfully, all commands are executed through commit statement.  7. Differentiate between a primary key and a unique key.  - By default, clustered index on the column are created by the primary key whereas nonclustered index are created by unique key.  - Primary key doesn't allow NULLs, but unique key allows one NULL.  8. What is recursion? Is it possible for a stored procedure to call itself or recursive stored procedure?  How many levels of SP nesting is possible?  Recursion is method of problem solving where the solution is arrived at by repetitively applying the logic and solution to the subsets of the problem.  Transact-SQL supports recursion. So, yes it is possible for a stored procedure to call itself.  Stored procedures and managed code references can be nested up to 32 levels.  9. What are the advantages of using Stored Procedures?  - They help in reducing the network traffic and latency which in turn boosts application performance.  - They help in promoting code reuse.  - They provide better security to data.  - It is possible to encapsulate the logic using stored procedures. This allows to change stored procedure code without affecting clients.  - It is possible to reuse stored procedure execution plans, which are cached in SQL Server's memory. This reduces server overhead.  10. a.) What do you mean by an execution plan? Why is it used? How would you view it?  a.) An execution plan can be called as a road map that graphically or textually shows the data retrieval methods which have been chosen by the SQL  Server query optimizer, for a stored procedure or ad- hoc query.   b.) It is used because it is a very useful tool for a developer to understand the performance characteristics of a query or stored procedure.   c.) There exists an option called "Show Execution Plan" in Query Analyzer. If this option is turned on, it will display query execution plan in separate window when the query is run again.  11. You want to implement the following relationships while designing tables. How would you do it? a.) One-to-one b.) One-to-many  c.) Many-to-many  a.) One-to-One relationship - can be implemented as a single table and rarely as two tables with primary and foreign key relationships.   b.) One-to-Many relationships - by splitting the data into two tables with primary key and foreign key relationships.   c.) Many-to-Many - by using a junction table with the keys from both the tables forming the composite primary key of the junction table.  12. Differentiate between DELETE and TRUNCATE.  - Truncate can not be rolled back while Delete can be.  - Truncate keeps the lock on table while Delete keeps the lock on each row.  - Truncate resets the counter of the Identity column while Delete doesn't do so.  - Trigger is not fired in Truncate while it happens in Delete.  13. What are the properties of the Relational tables?  Relational tables have six properties: 1. Values are atomic.  2. Column values are of the same kind.  3. Each row is unique.  4. The sequence of columns is insignificant.  5. The sequence of rows is insignificant.  6. Each column must have a unique name.  14. Explain the following.  a.) COLLATION.   Collation is a type of sort order. There are mainly three types of sort orders, namely:  i.) Dictionary case sensitive ii.)Dictionary - case insensitive  iii.)Binary.  b.) Stored Procedure  - It is a set of T-SQL statements combined together to perform a single task formed by combining many small tasks.  - When you actually run a Stored procedure, a set of statements is run.  15. What do you mean by ACID?  - ACID (Atomicity Consistency Isolation Durability) is a quality sought after in a reliable database. Here's the relevance of each quality:  - Atomicity is an all-or-none proposition.  - Consistency - it guarantees that your database is never left by a transaction in a half-finished state.  - Isolation - it keeps transactions separated from each other until they’re finished.  - Durability - it ensures that the database keeps a track of pending changes in a way that the server can recover from an abnormal termination.  16. Explain the following:  a.) Dirty pages.  These are the buffer pages that contain modifications which have not been written to disk.  b.) ETL - Extraction, Transformation, and Loading.  - It is the process of copying and cleaning data from heterogeneous sources.  - It is an important part of development projects for data warehousing and business intelligence.  17. Differentiate between a Local and a Global temporary table?  - A local temporary table exists only for the duration of a connection or, if defined inside a compound statement, for the duration of the compound statement.   - Global temporary tables (created with a double “##”) are visible to all sessions.  - Global temporary tables are dropped when the session that created it ends, and all other sessions have stopped referencing it.  18. Explain different types of Locks in SQL Server.  There are 3 kinds of locks in SQL Server  i.) Shared locks - they are used for operations which do not allow any change or update of data. For e.g. SELECT.   ii.) Update locks - they are used when SQL Server wants to modify a page. The update page lock is then promoted to an exclusive page lock before actually making the changes.   iii.) Exclusive locks - they are used for the data modification operations. For e.g. UPDATE, INSERT, or DELETE. |

**What are DMVs?**

Dynamic management views (DMVs) and functions return server state information that can be used to monitor the health of a server instance, diagnose problems, and tune performance; that is, they let you see what is going on inside SQL Server. They were introduced in SQL Server 2005 as an alternative to system tables. One example is viewing operating system wait statistics via this query:

SELECT \* FROM sys.dm\_os\_wait\_stats;

Another example is examining current sessions, much like the sp\_who2 command:

SELECT \* FROM sys.dm\_exec\_sessions;

**What are temp tables? What is the difference between global and local temp tables?**

Temporary tables are temporary storage structures. You may use temporary tables as buckets to store data that you will manipulate before arriving at a final format. The hash (#) character is used to declare a temporary table as it is prepended to the table name. A single hash (#) specifies a local temporary table.

CREATE TABLE #tempLocal ( nameid int, fname varchar(50), lname varchar(50) )

Local temporary tables are available to the current connection for the user, so they disappear when the user disconnects.

Global temporary tables may be created with double hashes (##). These are available to all users via all connections, and they are deleted only when all connections are closed.

CREATE TABLE ##tempGlobal ( nameid int, fname varchar(50), lname varchar(50) )

Once created, these tables are used just like permanent tables; they should be deleted when you are finished with them. Within SQL Server, temporary tables are stored in the Temporary Tables folder of the tempdb database.

**How are transactions used?**

Transactions allow you to group SQL commands into a single unit. The transaction begins with a certain task and ends when all tasks within it are complete. The transaction completes successfully only if all commands within it complete successfully. The whole thing fails if one command fails. The BEGIN TRANSACTION, ROLLBACK TRANSACTION, and COMMIT TRANSACTION statements are used to work with transactions. A group of tasks starts with the begin statement. If any problems occur, the rollback command is executed to abort. If everything goes well, all commands are permanently executed via the commit statement.

**What is the difference between a clustered and a nonclustered index?**

A clustered index affects the way the rows of data in a table are stored on disk. When a clustered index is used, rows are stored in sequential order according to the index column value; for this reason, a table can contain only one clustered index, which is usually used on the primary index value.

A nonclustered index does not affect the way data is physically stored; it creates a new object for the index and stores the column(s) designated for indexing with a pointer back to the row containing the indexed values.

You can think of a clustered index as a dictionary in alphabetical order, and a nonclustered index as a book’s index.

**What are DBCC commands?**

Basically, the Database Consistency Checker (DBCC) provides a set of commands (many of which are undocumented) to maintain databases — maintenance, validation, and status checks. The syntax is DBCC followed by the command name. Here are three examples:

DBCC CHECKALLOC — Check disk allocation consistency.

DBCC OPENTRAN — Display information about recent transactions.

DBCC HELP — Display Help for DBCC commands.

**What is the difference between truncate and delete?**

Truncate is a quick way to empty a table. It removes everything without logging each row. Truncate will fail if there are foreign key relationships on the table. Conversely, the delete command removes rows from a table, while logging each deletion and triggering any delete triggers that may be present.

**What does the NOLOCK query hint do?**

Table hints allow you to override the default behavior of the query optimizer for statements. They are specified in the FROM clause of the statement. While overriding the query optimizer is not always suggested, it can be useful when many users or processes are touching data. The NOLOCK query hint is a good example because it allows you to read data regardless of who else is working with the data; that is, it allows a dirty read of data — you read data no matter if other users are manipulating it. A hint like NOLOCK increases concurrency with large data stores.

SELECT \* FROM table\_name (NOLOCK)

Microsoft advises against using NOLOCK, as it is being replaced by the READUNCOMMITTED query hint. [There are lots more query hints with plenty of information online.](http://msdn.microsoft.com/en-us/library/ms187373.aspx)

**What is a CTE?**

A common table expression (CTE) is a temporary named result set that can be used within other statements like SELECT, INSERT, UPDATE, and DELETE. It is not stored as an object and its lifetime is limited to the query. It is defined using the WITH statement as the following example shows:

WITH ExampleCTE (id, fname, lname)

AS

(

SELECT id, firstname, lastname FROM table

)

SELECT \* FROM ExampleCTE

A CTE can be used in place of a view in some instances.

**What is a view? What is the WITH CHECK OPTION clause for a view?**

A view is a virtual table that consists of fields from one or more real tables. Views are often used to join multiple tables or to control access to the underlying tables.

The WITH CHECK OPTION for a view prevents data modifications (to the data) that do not confirm to the WHERE clause of the view definition. This allows data to be updated via the view, but only if it belongs in the view.

**What is a query execution plan?**

SQL Server has an optimizer that usually does a great job of optimizing code for the most effective execution. A query execution plan is the breakdown of how the optimizer will run (or ran) a query. There are several ways to view a query execution plan. This includes using the Show Execution Plan option within Query Analyzer; Display Estimated Execution Plan on the query dropdown menu; or use the SET SHOWPLAN\_TEXT ON command before running a query and capturing the execution plan event in a SQL Server Profiler trace.

**What does the SQL Server Agent Windows service do?**

SQL Server Agent is a Windows service that handles scheduled tasks within the SQL Server environment (aka jobs). The jobs are stored/defined within SQL Server, and they contain one or more steps that define what happens when the job runs. These jobs may run on demand, as well as via a trigger or predefined schedule. This service is very important when determining why a certain job did not run as planned — often it is as simple as the SQL Server Agent service not running.

**What is the default port number for SQL Server?**

If enabled, the default instance of Microsoft SQL Server listens on TCP port 1433. Named instances are configured for dynamic ports, so an available port is chosen when SQL Server starts. When connecting to a named instance through a firewall, configure the Database Engine to listen on a specific port, so that the appropriate port can be opened in the firewall.

The list of possible questions is endless. I am sure these questions will spawn debate and discussion.

#### ****Database SQL Queries Interview Questions and answers on "SQL Select"****

**1. Get all employee details from the employee table**

Select \* from employee

**2. Get First\_Name,Last\_Name from employee table**

Select first\_name, Last\_Name from employee

**3.** **Get First\_Name from employee table using alias name “Employee Name”**

Select first\_name Employee Name from employee

**4.** **Get First\_Name from employee table in upper case**

Select upper(FIRST\_NAME) from EMPLOYEE

**5.** **Get First\_Name from employee table in lower case**

Select lower(FIRST\_NAME) from EMPLOYEE

**6.** **Get unique DEPARTMENT from employee table**

select distinct DEPARTMENT from EMPLOYEE

**7.** **Select first 3 characters of FIRST\_NAME from EMPLOYEE**

**Oracle Equivalent of SQL Server** **SUBSTRING is SUBSTR, Query : select substr(FIRST\_NAME,0,3) from employee**

**SQL Server Equivalent of Oracle SUBSTR is SUBSTRING, Query :** **select substring(FIRST\_NAME,0,3) from employee**

**MySQL Server Equivalent of Oracle SUBSTR is SUBSTRING. In MySQL start position is 1, Query :** **select substring(FIRST\_NAME,1,3) from employee**

**8.** **Get position of 'o' in name 'Jhon' from employee table**

**Oracle Equivalent of SQL Server CHARINDEX is INSTR**, Query : Select instr(FIRST\_NAME,'o') from employee where first\_name = 'Jhon'  
**SQL Server Equivalent of Oracle INSTR is CHARINDEX**,Query: Select CHARINDEX('o',FIRST\_NAME,0) from employee where first\_name = 'Jhon'  
**MySQL Server Equivalent of Oracle INSTR is LOCATE**, Query: Select LOCATE('o',FIRST\_NAME) from employee where first\_name = 'Jhon'

**9.** **Get FIRST\_NAME from employee table after removing white spaces from right side**

select RTRIM(FIRST\_NAME) from employee

**10.** **Get FIRST\_NAME from employee table after removing white spaces from left side**

select LTRIM(FIRST\_NAME) from employee

**11.** **Get length of FIRST\_NAME from employee table**

**Oracle,MYSQL Equivalent of SQL Server Len is Length** , Query :select length(FIRST\_NAME) from employee  
**SQL Server Equivalent of Oracle,MYSQL Length is Len**, Query :select len(FIRST\_NAME) from employee

**12.** **Get First\_Name from employee table after replacing 'o' with '$'**

select REPLACE(FIRST\_NAME,'o','$') from employee

**13.** **Get First\_Name and Last\_Name as single column from employee table separated by a '\_'**

**Oracle Equivalent of MySQL concat** **is '||',** **Query :** **Select FIRST\_NAME|| '\_' ||LAST\_NAME from EMPLOYEE**

**SQL Server Equivalent of MySQL concat** **is '+',** **Query :** **Select FIRST\_NAME + '\_' +LAST\_NAME from EMPLOYEE**

**MySQL Equivalent of Oracle '||'** **is concat,** **Query :** **Select concat(FIRST\_NAME,'\_',LAST\_NAME) from EMPLOYEE**

**14.** **Get FIRST\_NAME ,Joining year,Joining Month and Joining Date from employee table**

**SQL Queries in Oracle, Select FIRST\_NAME, to\_char(joining\_date,'YYYY') JoinYear , to\_char(joining\_date,'Mon'), to\_char(joining\_date,'dd') from EMPLOYEE**

**SQL Queries in SQL Server, select SUBSTRING (convert(varchar,joining\_date,103),7,4) , SUBSTRING (convert(varchar,joining\_date,100),1,3) , SUBSTRING (convert(varchar,joining\_date,100),5,2) from EMPLOYEE**

**SQL Queries in MySQL,** **select year(joining\_date),month(joining\_date), DAY(joining\_date) from EMPLOYEE**

#### ****Database SQL Queries Interview Questions and answers on "SQL Order By"****

**15. Get all employee details from the employee table order by First\_Name Ascending**

**Select \* from employee order by FIRST\_NAME asc**

**16. Get all employee details from the employee table order by First\_Name descending**

**Select \* from employee order by FIRST\_NAME desc**

**17. Get all employee details from the employee table order by First\_Name Ascending and Salary descending**

**Select \* from employee order by FIRST\_NAME asc,SALARY desc**

#### ****Database SQL Queries Interview Questions and answers on "SQL Where Condition"****

**18. Get employee details from employee table whose employee name is “Jhon”**

**Select \* from EMPLOYEE where FIRST\_NAME = 'Jhon'**

**19. Get employee details from employee table whose employee name are “Jhon” and “Roy”**

**Select \* from EMPLOYEE where FIRST\_NAME in ('Jhon','Roy')**

**20. Get employee details from employee table whose employee name are not “Jhon” and “Roy”**

**Select \* from EMPLOYEE where FIRST\_NAME not in ('Jhon','Roy')**

#### ****Database SQL Queries Interview Questions and answers on "SQL Wild Card"****

**21. Get employee details from employee table whose first name starts with 'J'**

**Select \* from EMPLOYEE where FIRST\_NAME like 'J%'**

**22. Get employee details from employee table whose first name contains 'o'**

**Select \* from EMPLOYEE where FIRST\_NAME like '%o%'**

**23. Get employee details from employee table whose first name ends with 'n'**

**Select \* from EMPLOYEE where FIRST\_NAME like '%n'**

#### ****Database SQL Queries Interview Questions and answers on "SQL Pattern Matching"****

**24. Get employee details from employee table whose first name ends with 'n' and name contains 4 letters**

**Select \* from EMPLOYEE where FIRST\_NAME like '\_\_\_n' (Underscores)**

**25. Get employee details from employee table whose first name starts with 'J' and name contains 4 letters**

**Select \* from EMPLOYEE where FIRST\_NAME like 'J\_\_\_' (Underscores)**

**26. Get employee details from employee table whose Salary greater than 600000**

**Select \* from EMPLOYEE where Salary > 600000**

**27. Get employee details from employee table whose Salary less than 800000**

**Select \* from EMPLOYEE where Salary < 800000**

**28. Get employee details from employee table whose Salary between 500000 and 800000**

**Select \* from EMPLOYEE where Salary between 500000 and 800000**

**29. Get employee details from employee table whose name is 'Jhon' and 'Michael'**

**Select \* from EMPLOYEE where FIRST\_NAME in ('Jhon','Michael')**

#### ****Database SQL Queries Interview Questions and answers on "SQL DATE Functions"****

**30. Get employee details from employee table whose joining year is “2013”**

**SQL Queries in Oracle, Select \* from EMPLOYEE where to\_char(joining\_date,'YYYY') = '2013'**

**SQL Queries in SQL Server, Select \* from EMPLOYEE where SUBSTRING(convert(varchar,joining\_date,103),7,4) = '2013'**

**SQL Queries in MySQL,** **Select \* from EMPLOYEE where year(joining\_date) = '2013'**

**31. Get employee details from employee table whose joining month is “January”**

**SQL Queries in Oracle, Select \* from EMPLOYEE where to\_char(joining\_date,'MM') = '01' or Select \* from EMPLOYEE where to\_char(joining\_date,'Mon') = 'Jan'**

**SQL Queries in SQL Server, Select \* from EMPLOYEE where SUBSTRING(convert(varchar,joining\_date,100),1,3) = 'Jan'**

**SQL Queries in MySQL,** **Select \* from EMPLOYEE where month(joining\_date) = '01'**

**32. Get employee details from employee table who joined before January 1st 2013**

**SQL** **Queries** **in Oracle, Select \* from EMPLOYEE where JOINING\_DATE < to\_date('01/01/2013','dd/mm/yyyy')**

**SQL** **Queries** **in SQL Server (Format - “MM/DD/YYYY”), Select \* from EMPLOYEE where joining\_date < '01/01/2013'**

**SQL** **Queries** **in MySQL (Format - “YYYY-DD-MM”),** **Select \* from EMPLOYEE where joining\_date < '2013-01-01'**

**33. Get employee details from employee table who joined after January 31st**

**SQL** **Queries** **in Oracle, Select \* from EMPLOYEE where JOINING\_DATE > to\_date('31/01/2013','dd/mm/yyyy')**

**SQL** **Queries** **in SQL Server and MySQL (Format - “MM/DD/YYYY”), Select \* from EMPLOYEE where joining\_date >'01/31/2013'**

**SQL** **Queries** **in MySQL (Format - “YYYY-DD-MM”), Select \* from EMPLOYEE where joining\_date >** **'2013-01-31'**

**34. Get employee details from employee table who joined between January 1st and January 31st**

**SQL** **Queries** **in Oracle, Select \* from EMPLOYEE where JOINING\_DATE between to\_date('01/01/2013','dd/mm/yyyy') and to\_date('31/01/2013','dd/mm/yyyy')**

**SQL** **Queries** **in SQL Server (Format - “MM/DD/YYYY”), Select \* from EMPLOYEE where joining\_date between '01/01/2013' and '01/31/2013'**

**SQL** **Queries** **in MySQL (Format - “YYYY-DD-MM”),** **Select \* from EMPLOYEE where joining\_date between '2013-01-01' and '2013-01-31'**

**35. Get Joining Date and Time from employee table**

**SQL** **Queries** **in Oracle, select to\_char(JOINING\_DATE,'dd/mm/yyyy hh:mi:ss') from EMPLOYEE**

**SQL** **Queries** **in SQL Server, Select convert(varchar(19),joining\_date,121) from EMPLOYEE**

**SQL** **Queries** **in MySQL,** **Select CONVERT(DATE\_FORMAT(joining\_date,'%Y-%m-%d-%H:%i:00'),DATETIME) from EMPLOYEE**

**36. Get Joining Date,Time including milliseconds from employee table**

**SQL** **Queries** **in Oracle, select to\_char(JOINING\_DATE,'dd/mm/yyyy HH:mi:ss.ff') from EMPLOYEE . Column Data Type should be “TimeStamp”**

**SQL** **Queries** **in SQL Server, select convert(varchar,joining\_date,121) from EMPLOYEE**

**SQL** **Queries** **in MySQL,** **Select MICROSECOND(joining\_date) from EMPLOYEE**

**37. Get difference between JOINING\_DATE and INCENTIVE\_DATE from employee and incentives table**

**Select FIRST\_NAME,INCENTIVE\_DATE - JOINING\_DATE from employee a inner join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**38. Get database date**

**SQL** **Queries** **in Oracle, select sysdate from dual**

**SQL** **Queries** **in SQL Server, select getdate()**

**SQL Query in MySQL,** **select now()**

#### ****Database SQL Queries Interview Questions and answers on "SQL Escape Characters"****

**39. Get names of employees from employee table who has '%' in Last\_Name. Tip : Escape character for special characters in a query.**

**SQL** **Queries** **in Oracle, Select FIRST\_NAME from employee where Last\_Name like '%?%%'**

**SQL** **Queries** **in SQL Server, Select FIRST\_NAME from employee where Last\_Name like '%[%]%'**

**SQL** **Queries** **in MySQL,Select FIRST\_NAME from employee where Last\_Name like '%\%%'**

**40. Get Last Name from employee table after replacing special character with white space**

**SQL** **Queries** **in Oracle, Select translate(LAST\_NAME,'%',' ') from employee**

**SQL** **Queries** **in SQL Server adn MySQL, Select REPLACE(LAST\_NAME,'%',' ') from employee**

#### ****Database SQL Queries Interview Questions and answers on "SQL Group By Functions"****

**41. Get department,total salary with respect to a department from employee table.**

**Select DEPARTMENT,sum(SALARY) Total\_Salary from employee group by department**

**42. Get department,total salary with respect to a department from employee table order by total salary descending**

**Select DEPARTMENT,sum(SALARY) Total\_Salary from employee group by DEPARTMENT order by Total\_Salary** **descending**

#### ****Database SQL Queries Interview Questions and answers on "SQL Mathematical Operations and Group By"****

**43. Get department,no of employees in a department,total salary with respect to a department from employee table order by total salary** **descending**

**Select DEPARTMENT,count(FIRST\_NAME),sum(SALARY) Total\_Salary from employee group by DEPARTMENT order by Total\_Salary descending**

**44. Get department wise average salary from employee table order by salary** **ascending**

**select DEPARTMENT,avg(SALARY) AvgSalary from employee group by DEPARTMENT order by AvgSalary asc**

**45. Get department wise maximum salary from employee table order by salary** **ascending**

**select DEPARTMENT,max(SALARY) MaxSalary from employee group by DEPARTMENT order by MaxSalary asc**

**46. Get department wise minimum salary from employee table order by salary ascending**

**select DEPARTMENT,min(SALARY) MinSalary from employee group by DEPARTMENT order by MinSalary asc**

**47. Select no of employees joined with respect to year and month from employee table**

**SQL** **Queries** **in Oracle, select to\_char (JOINING\_DATE,'YYYY') Join\_Year,to\_char (JOINING\_DATE,'MM') Join\_Month,count(\*) Total\_Emp from employee group by to\_char (JOINING\_DATE,'YYYY'),to\_char(JOINING\_DATE,'MM')**

**SQL** **Queries** **in SQL Server, select datepart (YYYY,JOINING\_DATE) Join\_Year,datepart (MM,JOINING\_DATE) Join\_Month,count(\*) Total\_Emp from employee group by datepart(YYYY,JOINING\_DATE), datepart(MM,JOINING\_DATE)**

**SQL** **Queries** **in MySQL,** **select year (JOINING\_DATE) Join\_Year,month (JOINING\_DATE) Join\_Month,count(\*) Total\_Emp from employee group by year(JOINING\_DATE), month(JOINING\_DATE)**

**48. Select department,total salary with respect to a department from employee table where total salary greater than 800000 order by Total\_Salary descinding**

**Select DEPARTMENT,sum(SALARY) Total\_Salary from employee group by DEPARTMENT having sum(SALARY) > 800000 order by Total\_Salary desc**

#### ****Database SQL Queries Interview Questions and answers on "SQL Inner Join"****

**49. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives**

**Select FIRST\_NAME,INCENTIVE\_AMOUNT from employee a inner join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**50. Select first\_name, incentive amount from employee and incentives table for those employees who have incentives and incentive amount greater than 3000**

**Select FIRST\_NAME,INCENTIVE\_AMOUNT from employee a inner join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID and INCENTIVE\_AMOUNT > 3000**

**51. Select first\_name, incentive amount from employee and incentives table for all employess even if they didn't get incentives**

**Select FIRST\_NAME,INCENTIVE\_AMOUNT from employee a left join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**52. Select first\_name, incentive amount from employee and incentives table for all employees even if they didn't get incentives and set incentive amount as 0 for those employees who didn't get incentives.**

**SQL** **Queries** **in Oracle, Select FIRST\_NAME,nvl(INCENTIVE\_AMOUNT,0) from employee a left join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**SQL** **Queries** **in SQL Server, Select FIRST\_NAME, ISNULL(INCENTIVE\_AMOUNT,0) from employee a left join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**SQL** **Queries** **in MySQL, Select FIRST\_NAME, IFNULL(INCENTIVE\_AMOUNT,0) from employee a left join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**53. Select first\_name, incentive amount from employee and incentives table for all employees who got incentives using left join**

**SQL** **Queries** **in Oracle, Select FIRST\_NAME,nvl(INCENTIVE\_AMOUNT,0) from employee a right join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**SQL** **Queries** **in SQL Server, Select FIRST\_NAME, isnull(INCENTIVE\_AMOUNT,0) from employee a right join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**SQL** **Queries** **in MySQL, Select FIRST\_NAME, IFNULL(INCENTIVE\_AMOUNT,0) from employee a right join incentives B on A.EMPLOYEE\_ID = B.EMPLOYEE\_REF\_ID**

**54. Select max incentive with respect to employee from employee and incentives table using sub query**

**SQL** **Queries** **in Oracle, select DEPARTMENT,(select nvl(max(INCENTIVE\_AMOUNT),0) from INCENTIVES where EMPLOYEE\_REF\_ID = EMPLOYEE\_ID) Max\_incentive from EMPLOYEE**

**SQL** **Queries** **in SQL Server, select DEPARTMENT,(select ISNULL(max(INCENTIVE\_AMOUNT),0) from INCENTIVES where EMPLOYEE\_REF\_ID = EMPLOYEE\_ID) Max\_incentive from EMPLOYEE**

**SQL** **Queries** **in SQL Server, select DEPARTMENT,(selectIFNULL (max(INCENTIVE\_AMOUNT),0) from INCENTIVES where EMPLOYEE\_REF\_ID = EMPLOYEE\_ID) Max\_incentive from EMPLOYEE**

#### ****Database SQL Queries Interview Questions and answers on "Top N Salary"****

**55. Select TOP 2 salary from employee table**

**SQL** **Queries** **in Oracle, select \* from (select \* from employee order by SALARY desc) where rownum < 3**

**SQL** **Queries** **in SQL Server, select top 2 \* from employee** **order by salary desc**

**SQL** **Queries** **in MySQL,** **select \* from employee order by salary desc limit 2**

**56. Select TOP N salary from employee table**

**SQL** **Queries** **in Oracle, select \* from (select \* from employee order by SALARY desc) where rownum < N + 1**

**SQL** **Queries** **in SQL Server, select top N \* from employee**

**SQL** **Queries** **in MySQL,** **select \* from employee order by salary desc limit N**

**57. Select 2nd Highest salary from employee table**

**SQL** **Queries** **in Oracle, select min(salary) from (select \* from (select \* from employee order by SALARY desc) where rownum < 3)**

**SQL** **Queries** **in SQL Server, select min(SALARY) from (select top 2 \* from employee) a**

**SQL** **Queries** **in MySQL,** **select min(SALARY) from (select \* from employee order by salary desc limit 2) a**

**58. Select Nth Highest salary from employee table**

**SQL** **Queries** **in Oracle, select min(salary) from (select \* from (select \* from employee order by SALARY desc) where rownum < N + 1)**

**SQL** **Queries** **in SQL Server, select min(SALARY) from (select top N \* from employee) a**

**SQL** **Queries** **in MySQL,** **select min(SALARY) from (select \* from employee order by salary desc limit N) a**

#### ****Database SQL Queries Interview Questions and answers on "SQL Union"****

**59. Select First\_Name,LAST\_NAME from employee table as separate rows**

**select FIRST\_NAME from EMPLOYEE union select** **LAST\_NAME** **from** **EMPLOYEE**

**60. Select employee details from employee table if data exists in incentive table**

**select \* from EMPLOYEE where exists (select \* from INCENTIVES)**

#### ****Database Queries Interview Questions and answers on "SQL Advanced Queries"****

**61. Select 20 % of salary from Jhon , 10% of Salary for roy and for other 15 % of salary from employee table**

**SELECT FIRST\_NAME, CASE FIRST\_NAME WHEN 'Jhon' THEN SALARY \* .2 WHEN 'Roy' THEN SALARY \* .10 ELSE SALARY \* .15 END "Deduced\_Amount" FROM EMPLOYEE**

**62. Select Banking as 'Bank Dept', Insurance as 'Insurance Dept' and Services as 'Services Dept' from employee table**

**SQL** **Queries** **in Oracle, SELECT distinct DECODE (DEPARTMENT, 'Banking', 'Bank Dept', 'Insurance', 'Insurance Dept', 'Services', 'Services Dept') FROM EMPLOYEE**

**SQL** **Queries** **in SQL Server and MySQL, SELECT case DEPARTMENT when 'Banking' then 'Bank Dept' when 'Insurance' then 'Insurance Dept' when 'Services' then 'Services Dept' end FROM EMPLOYEE**

**63. Delete employee data from employee table who got incentives in incentive table**

**delete from EMPLOYEE where EMPLOYEE\_ID in (select EMPLOYEE\_REF\_ID from INCENTIVES)**

**64. Insert into employee table Last Name with ''' (Single Quote - Special Character, Use single quote before special character )**

**Insert into employee (LAST\_NAME) values ('Test''')**

**65. Select Last Name from employee table which contain only numbers**

**Select \* from EMPLOYEE where lower(LAST\_NAME) = upper(LAST\_NAME)**

#### ****Database SQL Queries Interview Questions and answers on "SQL Table Scripts"****

**66. Write create table syntax for employee table**

**Oracle -**

**CREATE TABLE EMPLOYEE (**

**EMPLOYEE\_ID NUMBER,**

**FIRST\_NAME VARCHAR2(20 BYTE),**

**LAST\_NAME VARCHAR2(20 BYTE),**

**SALARY FLOAT(126),**

**JOINING\_DATE TIMESTAMP (6) DEFAULT sysdate,**

**DEPARTMENT VARCHAR2(30 BYTE) )**

**SQL Server -**

**CREATE TABLE EMPLOYEE(**

**EMPLOYEE\_ID int NOT NULL,**

**FIRST\_NAME varchar(50) NULL,**

**LAST\_NAME varchar(50) NULL,**

**SALARY decimal(18, 0) NULL,**

**JOINING\_DATE datetime2(7) default getdate(),**

**DEPARTMENT varchar(50) NULL)**

**67. Write syntax to delete table employee**

**DROP table employee;**

**68. Write syntax to set EMPLOYEE\_ID as primary key in employee table**

**ALTER TABLE EMPLOYEE add CONSTRAINT EMPLOYEE\_PK PRIMARY KEY(EMPLOYEE\_ID)**

**69. Write syntax to set 2 fields(EMPLOYEE\_ID,FIRST\_NAME) as primary key in employee table**

**ALTER TABLE EMPLOYEE add CONSTRAINT EMPLOYEE\_PK PRIMARY KEY(EMPLOYEE\_ID,FIRST\_NAME)**

**70. Write syntax to drop primary key on employee table**

**Alter TABLE EMPLOYEE drop CONSTRAINT EMPLOYEE\_PK;**

**71. Write Sql Syntax to create EMPLOYEE\_REF\_ID in INCENTIVES table as foreign key with respect to EMPLOYEE\_ID in employee table**

**ALTER TABLE INCENTIVES ADD CONSTRAINT INCENTIVES\_FK FOREIGN KEY (EMPLOYEE\_REF\_ID) REFERENCES EMPLOYEE(EMPLOYEE\_ID)**

**72. Write SQL to drop foreign key on employee table**

**ALTER TABLE INCENTIVES drop CONSTRAINT INCENTIVES\_FK;**

**73. Write SQL to create Orcale Sequence**

**CREATE SEQUENCE EMPLOYEE\_ID\_SEQ**

**START WITH 0 NOMAXVALUE MINVALUE 0 NOCYCLE NOCACHE NOORDER;**

**74. Write Sql syntax to create Oracle Trigger before insert of each row in employee table**

**CREATE OR REPLACE TRIGGER EMPLOYEE\_ROW\_ID\_TRIGGER**

**BEFORE INSERT ON EMPLOYEE FOR EACH ROW**

**DECLARE**

**seq\_no number(12);**

**BEGIN**

**select EMPLOYEE\_ID\_SEQ.nextval into seq\_no from dual ;**

**:new EMPLOYEE\_ID := seq\_no;**

**END;**

**SHOW ERRORS;**

**1. What are the two authentication modes in SQL Server?**

There are two authentication modes –

* Windows Mode
* Mixed Mode

Modes can be changed by selecting the tools menu of SQL Server configuration properties and choose security page.

**2.  What Is SQL Profiler?**

SQL Profiler is a tool which allows system administrator to monitor events in the SQL server.  This is mainly used to capture and save data about each event of a file or a table for analysis.

**3. What is recursive stored procedure?**

SQL Server supports recursive stored procedure which calls by itself. Recursive stored procedure can be defined as a method of problem solving wherein the solution is arrived repetitively. It can nest up to 32 levels.

[sql]CREATE PROCEDURE [dbo].[Fact]  
(  
@Number Integer,  
@RetVal Integer OUTPUT  
)  
AS  
DECLARE @In Integer  
DECLARE @Out Integer  
IF @Number != 1  
BEGIN  
SELECT @In = @Number – 1  
EXEC Fact @In, @Out OUTPUT – Same stored procedure has been called again(Recursively)  
SELECT @RetVal = @Number \* @Out  
END  
ELSE  
BEGIN  
SELECT @RetVal = 1  
END  
RETURN  
GO[/sql]

**4. What are the differences between local and global temporary tables?**

* Local temporary tables  are visible when there is a connection, and are deleted when the connection is closed.

[sql]CREATE TABLE #<tablename>[/sql]

* Global temporary tables  are visible to all users, and are deleted when the connection that created it is closed.

[sql]CREATE TABLE ##<tablename>[/sql]

**5. What is CHECK constraint?**

A CHECK constraint can be applied to a column in a table to limit the values that can be placed in a column. Check constraint is to enforce integrity.

**6. Can SQL servers linked to other servers?**

SQL server can be connected to any database which has OLE-DB provider to give a link. Example: Oracle has OLE-DB provider which has link to connect with the SQL server group.

**7.  What is sub query and its properties?**

A sub-query is a query which can be nested inside a main query like Select, Update, Insert or Delete statements. This can be used when expression is allowed. Properties of sub query can be defined as

* A sub query should not have order by clause
* A sub query should be placed in the right hand side of the comparison operator of the main query
* A sub query should be enclosed in parenthesis because it needs to be executed first before the main query
* More than one sub query can be included

**8. What are the types of sub query?**

There are three types of sub query –

* Single row sub query which returns only one row
* Multiple row sub query which returns multiple rows
* Multiple column sub query which returns multiple columns to the main query. With that sub query result, Main query will be executed.

**9. What is SQL server agent?**

The SQL Server agent plays  a vital role in day to day tasks of SQL server administrator(DBA). Server agent’s purpose is to implement the tasks easily with the scheduler engine which allows our jobs to run at scheduled date and time.

**10. What are scheduled tasks in SQL Server?**

Scheduled tasks or jobs are used to automate processes that can be run on a scheduled time at a regular interval. This scheduling of tasks helps to reduce human intervention during night time and feed can be done at a particular time. User can also order the tasks in which it has to be generated.

**11. What is COALESCE in SQL Server?**

COALESCE is used to return first non-null expression within the arguments. This function is used to return a non-null from more than one column in the arguments.

Example –

[sql]Select COALESCE(empno, empname, salary) from employee[/sql]

**12.   How exceptions can be handled in SQL Server Programming?**

Exceptions are handled using TRY—-CATCH constructs and it is handles by writing scripts inside the TRY block and error handling in the CATCH block.

**13.   What is the purpose of FLOOR function?**

FLOOR function is used to round up a non-integer value to the previous least integer. Example is given

[sql]FLOOR(6.7)[/sql]

Returns 6.

**14.   Can we check locks in database? If so, how can we do this lock check?**

Yes, we can check locks in the database. It can be achieved by using in-built stored procedure called sp\_lock.

**15.   What is the use of SIGN function?**

SIGN function is used to determine whether the number specified is Positive, Negative and Zero. This will return +1,-1 or 0.

Example –

[sql]SIGN(-35) returns -1[/sql]

**16.   What is a Trigger?**

Triggers are used to execute a batch of SQL code when insert or update or delete commands are executed against a table. Triggers are automatically triggered or executed when the data is modified. It can be executed automatically on insert, delete and update operations.

**17.   What are the types of Triggers?**

There are four types of triggers and they are:

* Insert
* Delete
* Update
* Instead of

**18.   What is an IDENTITY column in insert statements?**

IDENTITY column is used in table columns to make that column as Auto incremental number or a surrogate key.

**19.   What is Bulkcopy in SQL?**

Bulkcopy is a tool used to copy large amount of data from Tables. This tool is used to load large amount of data in SQL Server.

**20.   What will be query used to get the list of triggers in a database?**

Query to get the list of triggers in database-

[sql]Select \* from sys.objects where type=’tr’[/sql]

**21.   What is the difference between UNION and UNION ALL?**

UNION statement is mainly used to combine the tables including the duplicate rows and UNION ALL combine but does not look for duplicate rows. With this, UNION ALL will be very faster than UNION statements.

**22.   How Global temporary tables are represented and its scope?**

Global temporary tables are represented with ## before the table name. Scope will be the outside the session whereas local temporary tables are inside the session. Session ID can be found using @@SPID.

**23.  What are the differences between Stored Procedure and the dynamic SQL?**

Stored Procedure is a set of statements which is stored in a compiled form. Dynamic SQL is a set of statements that dynamically constructed at runtime and it will not be stored in a Database and it simply execute during run time.

**24.** **What is Collation?**

Collation is defined to specify the sort order in a table. There are three types of sort order –

1. Case sensitive
2. Case Insensitive
3. Binary

**25.  How can we get count of the number of records in a table?**

Following are the queries can be used to get the count of records in a table -

[sql]Select \* from <tablename>  
Select count(\*) from <tablename>  
Select rows from sysindexes where id=OBJECT\_ID(tablename) and indid<2[/sql]

**26. What is the command used to get the version of SQL Server?**

[sql]Select SERVERPROPERTY(‘productversion’)[/sql]

is used to get the version of SQL Server.

**27.   What is UPDATE\_STATISTICS command?**

UPDATE\_STATISTICS command is used to update the indexes on the tables when there is a large amount of deletions or modifications or bulk copy occurred in indexes.

**28.   What is the use of SET NOCOUNT ON/OFF statement?**

By default, NOCOUNT is set to OFF and it returns number of records got affected whenever the command is getting executed. If the user doesn’t want to display the number of records affected, it can be explicitly set to ON- (SET NOCOUNT ON).

**29.   Which SQL server table is used to hold the stored procedure scripts?**

Sys.SQL\_Modules is a SQL Server table used to store the script of stored procedure. Name of the stored procedure is saved in the table called Sys.Procedure.

**30.   What are Magic Tables in SQL Server?**

Insert and Delete tables are created when the trigger is fired for any DML command. Those tables are called Magic Tables in SQL Server. These magic tables are used inside the triggers for data transaction.

**31.   What is the difference between SUBSTR and INSTR in the SQL Server?**

The SUBSTR function is used to return specific portion of string in a given string. But, INSTR function gives character position in a given specified string.

[sql]SUBSTR(“Smiley”,3)[/sql]

Gives result as Smi

[sql]INSTR(“Smiley”,’i’,1)[/sql]

Gives 3 as result as I appears in 3rd position of the string

**32.   What is the use of =,==,=== operators?**

= is used to assign one value or variable to another variable. == is used for comparing two strings or numbers. === is used to compare only string with the string and number with numbers.

**33.   What is ISNULL() operator?**

ISNULL function is used to check whether value given is NULL or not NULL in sql server. This function also provides to replace a value with the NULL.

**34.   What is the use of FOR Clause?**

FOR clause is mainly used for XML and browser options. This clause is mainly used to display the query results in XML format or in browser.

**35.   What will be the maximum number of index per table?**

100 Index can be used as maximum number per table. 1 Clustered Index and 999 Non-clustered indexes per table can be used in SQL Server.

**36.   What is the difference between COMMIT and ROLLBACK?**

Every statement between BEGIN and COMMIT becomes persistent to database when the COMMIT is executed. Every statement between BEGIN and ROOLBACK are reverted to the state when the ROLLBACK was executed.

**37.   What is the difference between varchar and nvarchar types?**

Varchar and nvarchar are same but the only difference is that nvarhcar can be used to store Unicode characters for multiple languages and it also takes more space when compared with varchar.

**38.   What is the use of @@SPID?**

A @@SPID returns the session ID of the current user process.

**39.   What is the command used to Recompile the stored procedure at run time?**

Stored Procedure can be executed with the help of keyword called RECOMPILE.

Example

[sql]Exe <SPName>  WITH RECOMPILE[/sql]

Or we can include WITHRECOMPILE in the stored procedure itself.

**40.   How to delete duplicate rows in SQL Server?**

Duplicate rows can be deleted using CTE and ROW NUMER feature of SQL Server.

**41.   Where are SQL Server user names and passwords stored in SQL Server?**

User Names and Passwords are stored in sys.server\_principals and sys.sql\_logins. But passwords are not stored in normal text.

**42.   What is the difference between GETDATE and SYSDATETIME?**

Both are same but GETDATE can give time till milliseconds and SYSDATETIME can give precision till nanoseconds. SYSDATE TIME is more accurate than GETDATE.

**43.   How data can be copied from one table to another table?**

INSERT INTO SELECT

This command is used to insert data into a table which is already created.

SELECT INTO

This command is used to create a new table and its structure and data can be copied from existing table.

**44.   What is TABLESAMPLE?**

TABLESAMPLE is used to extract sample of rows randomly that are all necessary for the application. The sample rows taken are based on the percentage of rows.

**45.   Which command is used for user defined error messages?**

RAISEERROR is the command used to generate and initiates error processing for a given session. Those user defined messages are stored in sys.messages table.

**46.   What do mean by XML Datatype?**

XML data type is used to store XML documents in the SQL Server database. Columns and variables are created and store XML instances in the database.

**47.   What is CDC?**

CDC is abbreviated as Change Data Capture which is used to capture the data that has been changed recently. This feature is present in SQL Server 2008.

**48.   What is SQL injection?**

SQL injection is an attack by malicious users in which malicious code can be inserted into strings that can be passed to an instance of SQL server for parsing and execution. All statements have to checked for vulnerabilities as it executes all syntactically valid queries that it receives.

Even parameters can be manipulated by the skilled and experienced attackers.

**49.   What are the methods used to protect against SQL injection attack?**

Following are the methods used to protect against SQL injection attack:

* Use Parameters for Stored Procedures
* Filtering input parameters
* Use Parameter collection with Dynamic SQL
* In like clause, user escape characters

**50.   What is Filtered Index?**

Filtered Index is used to filter some portion of rows in a table to improve query performance, index maintenance and reduces index storage costs. When the index is created with WHERE clause, then it is called Filtered Index

**1. Which TCP/IP port does SQL Server run on? How can it be changed?**

SQL Server runs on port 1433. It can be changed from the Network Utility TCP/IP properties.

**2. What are the difference between clustered and a non-clustered index?**

1. **A clustered index** is a special type of index that reorders the way records in the table are physically stored. Therefore table can have only one clustered index. The leaf nodes of a clustered index contain the data pages.
2. **A non clustered index** is a special type of index in which the logical order of the index does not match the physical stored order of the rows on disk. The leaf node of a non clustered index does not consist of the data pages. Instead, the leaf nodes contain index rows.

**3. What are the different index configurations a table can have?**

A table can have one of the following index configurations:

1. No indexes
2. A clustered index
3. A clustered index and many nonclustered indexes
4. A nonclustered index
5. Many nonclustered indexes

**4. What are different types of Collation Sensitivity?**

1. **Case sensitivity** - A and a, B and b, etc.
2. **Accent sensitivity**
3. **Kana Sensitivity** - When Japanese kana characters Hiragana and Katakana are treated differently, it is called Kana sensitive.
4. **Width sensitivity** - A single-byte character (half-width) and the same character represented as a double-byte character (full-width) are treated differently than it is width sensitive.

**5. What is OLTP (Online Transaction Processing)?**

In OLTP - online transaction processing systems relational database design use the discipline of data modeling and generally follow the Codd rules of data normalization in order to ensure absolute data integrity. Using these rules complex information is broken down into its most simple structures (a table) where all of the individual atomic level elements relate to each other and satisfy the normalization rules.

**6. What's the difference between a primary key and a unique key?**

Both primary key and unique key enforces uniqueness of the column on which they are defined. But by default primary key creates a clustered index on the column, where are unique creates a nonclustered index by default. Another major difference is that, primary key doesn't allow NULLs, but unique key allows one NULL only.

**7. What is difference between DELETE and TRUNCATE commands?**

Delete command removes the rows from a table based on the condition that we provide with a WHERE clause. Truncate will actually remove all the rows from a table and there will be no data in the table after we run the truncate command.

1. **TRUNCATE**:
   1. TRUNCATE is faster and uses fewer system and transaction log resources than DELETE.
   2. TRUNCATE removes the data by deallocating the data pages used to store the table's data, and only the page deallocations are recorded in the transaction log.
   3. TRUNCATE removes all rows from a table, but the table structure, its columns, constraints, indexes and so on, remains. The counter used by an identity for new rows is reset to the seed for the column.
   4. You cannot use TRUNCATE TABLE on a table referenced by a FOREIGN KEY constraint. Because TRUNCATE TABLE is not logged, it cannot activate a trigger.
   5. TRUNCATE cannot be rolled back.
   6. TRUNCATE is DDL Command.
   7. TRUNCATE Resets identity of the table
2. **DELETE**:
   1. DELETE removes rows one at a time and records an entry in the transaction log for each deleted row.
   2. If you want to retain the identity counter, use DELETE instead. If you want to remove table definition and its data, use the DROP TABLE statement.
   3. DELETE Can be used with or without a WHERE clause
   4. DELETE Activates Triggers.
   5. DELETE can be rolled back.
   6. DELETE is DML Command.
   7. DELETE does not reset identity of the table.

Note: DELETE and TRUNCATE both can be rolled back when surrounded by TRANSACTION if the current session is not closed. If TRUNCATE is written in Query Editor surrounded by TRANSACTION and if session is closed, it can not be rolled back but DELETE can be rolled back.

**8. When is the use of UPDATE\_STATISTICS command?**

This command is basically used when a large processing of data has occurred. If a large amount of deletions any modification or Bulk Copy into the tables has occurred, it has to update the indexes to take these changes into account. UPDATE\_STATISTICS updates the indexes on these tables accordingly.

**9. What is the difference between a HAVING CLAUSE and a WHERE CLAUSE?**

They specify a search condition for a group or an aggregate. But the difference is that HAVING can be used only with the SELECT statement. HAVING is typically used in a GROUP BY clause. When GROUP BY is not used, HAVING behaves like a WHERE clause. Having Clause is basically used only with the GROUP BY function in a query whereas WHERE Clause is applied to each row before they are part of the GROUP BY function in a query.

**10. What are the properties and different Types of Sub-Queries?**

1. **Properties of Sub-Query**
   1. A sub-query must be enclosed in the parenthesis.
   2. A sub-query must be put in the right hand of the comparison operator, and
   3. A sub-query cannot contain an ORDER-BY clause.
   4. A query can contain more than one sub-query.
2. **Types of Sub-Query**
   1. Single-row sub-query, where the sub-query returns only one row.
   2. Multiple-row sub-query, where the sub-query returns multiple rows,. and
   3. Multiple column sub-query, where the sub-query returns multiple columns

**11. What is SQL Profiler?**

SQL Profiler is a graphical tool that allows system administrators to monitor events in an instance of Microsoft SQL Server. You can capture and save data about each event to a file or SQL Server table to analyze later. For example, you can monitor a production environment to see which stored procedures are hampering performances by executing too slowly.

Use SQL Profiler to monitor only the events in which you are interested. If traces are becoming too large, you can filter them based on the information you want, so that only a subset of the event data is collected. Monitoring too many events adds overhead to the server and the monitoring process and can cause the trace file or trace table to grow very large, especially when the monitoring process takes place over a long period of time.

**12. What are the authentication modes in SQL Server? How can it be changed?**

Windows mode and Mixed Mode - SQL and Windows. To change authentication mode in SQL Server click Start, Programs, Microsoft SQL Server and click SQL Enterprise Manager to run SQL Enterprise Manager from the Microsoft SQL Server program group. Select the server then from the Tools menu select SQL Server Configuration Properties, and choose the Security page.

**13. Which command using Query Analyzer will give you the version of SQL server and operating system?**

SELECT SERVERPROPERTY ('productversion'), SERVERPROPERTY ('productlevel'), SERVERPROPERTY ('edition').

**14. What is SQL Server Agent?**

SQL Server agent plays an important role in the day-to-day tasks of a database administrator (DBA). It is often overlooked as one of the main tools for SQL Server management. Its purpose is to ease the implementation of tasks for the DBA, with its full- function scheduling engine, which allows you to schedule your own jobs and scripts.

**15. Can a stored procedure call itself or recursive stored procedure? How much level SP nesting is possible?**

Yes. Because Transact-SQL supports recursion, you can write stored procedures that call themselves. Recursion can be defined as a method of problem solving wherein the solution is arrived at by repetitively applying it to subsets of the problem. A common application of recursive logic is to perform numeric computations that lend themselves to repetitive evaluation by the same processing steps. Stored procedures are nested when one stored procedure calls another or executes managed code by referencing a CLR routine, type, or aggregate. You can nest stored procedures and managed code references up to 32 levels.

**16. What is Log Shipping?**

Log shipping is the process of automating the backup of database and transaction log files on a production SQL server, and then restoring them onto a standby server. Enterprise Editions only supports log shipping. In log shipping the transactional log file from one server is automatically updated into the backup database on the other server. If one server fails, the other server will have the same db and can be used this as the Disaster Recovery plan. The key feature of log shipping is that it will automatically backup transaction logs throughout the day and automatically restore them on the standby server at defined interval.

**17. Name 3 ways to get an accurate count of the number of records in a table?**

SELECT \* FROM table1   
SELECT COUNT(\*) FROM table1   
SELECT rows FROM sysindexes WHERE id = OBJECT\_ID(table1) AND indid < 2

**18. What does it mean to have QUOTED\_IDENTIFIER ON? What are the implications of having it OFF?**

When SET QUOTED\_IDENTIFIER is ON, identifiers can be delimited by double quotation marks, and literals must be delimited by single quotation marks. When SET QUOTED\_IDENTIFIER is OFF, identifiers cannot be quoted and must follow all Transact-SQL rules for identifiers.

**19. What is the difference between a Local and a Global temporary table?**

1. **A local temporary** table exists only for the duration of a connection or, if defined inside a compound statement, for the duration of the compound statement.
2. **A global temporary** table remains in the database permanently, but the rows exist only within a given connection. When connection is closed, the data in the global temporary table disappears. However, the table definition remains with the database for access when database is opened next time.

**20. What is the STUFF function and how does it differ from the REPLACE function?**

STUFF function is used to overwrite existing characters. Using this syntax, STUFF (string\_expression, start, length, replacement\_characters), string\_expression is the string that will have characters substituted, start is the starting position, length is the number of characters in the string that are substituted, and replacement\_characters are the new characters interjected into the string. REPLACE function to replace existing characters of all occurrences. Using the syntax REPLACE (string\_expression, search\_string, replacement\_string), where every incidence of search\_string found in the string\_expression will be replaced with replacement\_string.

**21. What is PRIMARY KEY?**

A PRIMARY KEY constraint is a unique identifier for a row within a database table. Every table should have a primary key constraint to uniquely identify each row and only one primary key constraint can be created for each table. The primary key constraints are used to enforce entity integrity.

**22. What is UNIQUE KEY constraint?**

A UNIQUE constraint enforces the uniqueness of the values in a set of columns, so no duplicate values are entered. The unique key constraints are used to enforce entity integrity as the primary key constraints.

**23. What is FOREIGN KEY?**

A FOREIGN KEY constraint prevents any actions that would destroy links between tables with the corresponding data values. A foreign key in one table points to a primary key in another table. Foreign keys prevent actions that would leave rows with foreign key values when there are no primary keys with that value. The foreign key constraints are used to enforce referential integrity.

**24. What is CHECK Constraint?**

A CHECK constraint is used to limit the values that can be placed in a column. The check constraints are used to enforce domain integrity.

**25. What is NOT NULL Constraint?**

A NOT NULL constraint enforces that the column will not accept null values. The not null constraints are used to enforce domain integrity, as the check constraints.

**26. How to get @@ERROR and @@ROWCOUNT at the same time?**

If @@Rowcount is checked after Error checking statement then it will have 0 as the value of @@Recordcount as it would have been reset. And if @@Recordcount is checked before the error-checking statement then @@Error would get reset. To get @@error and @@rowcount at the same time do both in same statement and store them in local variable.

SELECT @RC = @@ROWCOUNT, @ER = @@ERROR

**27. What is a Scheduled Jobs or What is a Scheduled Tasks?**

Scheduled tasks let user automate processes that run on regular or predictable cycles. User can schedule administrative tasks, such as cube processing, to run during times of slow business activity. User can also determine the order in which tasks run by creating job steps within a SQL Server Agent job. E.g. back up database, Update Stats of Tables. Job steps give user control over flow of execution. If one job fails, user can configure SQL Server Agent to continue to run the remaining tasks or to stop execution.

**28. What are the advantages of using Stored Procedures?**

1. Stored procedure can reduced network traffic and latency, boosting application performance.
2. Stored procedure execution plans can be reused, staying cached in SQL Server's memory, reducing server overhead.
3. Stored procedures help promote code reuse.
4. Stored procedures can encapsulate logic. You can change stored procedure code without affecting clients.
5. Stored procedures provide better security to your data.

**29. What is a table called, if it has neither Cluster nor Non-cluster Index? What is it used for?**

Unindexed table or Heap. Microsoft Press Books and Book on Line (BOL) refers it as Heap. A heap is a table that does not have a clustered index and, therefore, the pages are not linked by pointers. The IAM pages are the only structures that link the pages in a table together. Unindexed tables are good for fast storing of data. Many times it is better to drop all indexes from table and then do bulk of inserts and to restore those indexes after that.

**30. Can SQL Servers linked to other servers like Oracle?**

SQL Server can be linked to any server provided it has OLE-DB provider from Microsoft to allow a link. E.g. Oracle has an OLE-DB provider for oracle that Microsoft provides to add it as linked server to SQL Server group.

**31. What is BCP? When does it used?**

BulkCopy is a tool used to copy huge amount of data from tables and views. BCP does not copy the structures same as source to destination. BULK INSERT command helps to import a data file into a database table or view in a user-specified format.

**32. How to implement one-to-one, one-to-many and many-to-many relationships while designing tables?**

One-to-One relationship can be implemented as a single table and rarely as two tables with primary and foreign key relationships. One-to-Many relationships are implemented by splitting the data into two tables with primary key and foreign key relationships. Many-to-Many relationships are implemented using a junction table with the keys from both the tables forming the composite primary key of the junction table.

**33. What is an execution plan? When would you use it? How would you view the execution plan?**

An execution plan is basically a road map that graphically or textually shows the data retrieval methods chosen by the SQL Server query optimizer for a stored procedure or ad- hoc query and is a very useful tool for a developer to understand the performance characteristics of a query or stored procedure since the plan is the one that SQL Server will place in its cache and use to execute the stored procedure or query. From within Query Analyzer is an option called "Show Execution Plan" (located on the Query drop-down menu). If this option is turned on it will display query execution plan in separate window when query is ran again.

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| [What is trigger?](http://www.dotnetfunda.com/interview/exam24-what-is-trigger.aspx" \o "What is trigger?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  Triggers allows us to execute a batch of SQL code when either an insert, update or delete command is executed against a specific table.   Triggers are special types of stored procedures that are defined to execute automatically in place of or after data modifications. They can be executed automatically on the insert, delete and update operation. |
| [What is Clustered & Non-Clustered Index?](http://www.dotnetfunda.com/interview/exam46-what-is-clustered-non-clustered-index.aspx" \o "What is Clustered & Non-Clustered Index?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  **Clustered Index:** Clustered index physically rearrange the data that users inserts in your tables. It is nothing but a dictionary type data where actual data remains.    **Non-Clustered Index:** It Non-Clustered Index contains pointers to the data that is stored in the data page. It is a kind of index backside of the book where you see only the reference of a kind of data. |
| [How many types of triggers are there?](http://www.dotnetfunda.com/interview/exam47-how-many-types-of-triggers-are-there.aspx" \o "How many types of triggers are there?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  There are four types of triggers.   1. Insert  2. Delete  3. Update  4. Instead of |
| [What is constraints?](http://www.dotnetfunda.com/interview/exam48-what-is-constraints.aspx" \o "What is constraints?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  SQL Server users constraints to enforce limitations on the data that can be entered into a particular column in table. There are following types of constraints.   Unique, Default, Check, Primary Key, Foreign Key, Not Null. |
| [What is the difference between Truncate and Delete?](http://www.dotnetfunda.com/interview/exam76-what-is-the-difference-between-truncate-and-delete.aspx" \o "What is the difference between Truncate and Delete?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  Delete statement removes rows of a table one by one & delete triggers on that table fires. But Truncate removes all rows by deallocating the data pages assigned to the table & only these deallocation are recorded in the transaction log. |
| [What Primary key and Unique key?](http://www.dotnetfunda.com/interview/exam77-what-primary-key-and-unique-key.aspx" \o "What Primary key and Unique key?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  Primary key are used with Foreign key to enforce referential integrity. Unique constraints allows nulls to be inserted into the field. But there can't be null in Primary key. |
| [How to join two tables in Sql Server?](http://www.dotnetfunda.com/interview/exam125-how-to-join-two-tables-in-sql-server.aspx" \o "How to join two tables in Sql Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  you can write following sql statement   select category.\*, categoryparent.categoryparent from category, categoryparent where category.categoryparentid = categoryparent.autoid   I am assuming here that category.categoryparentid (foreign key) is the value of categoryparent.autoid (primary key). |
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| [How do you implement one-to-one, one-to-many and many-to-many relationships while designing tables?](http://www.dotnetfunda.com/interview/exam199-how-do-you-implement-one-to-one-one-to-many-and-many-to-many-relationships.aspx" \o "How do you implement one-to-one, one-to-many and many-to-many relationships while designing tables?) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  One-to-One relationship can be implemented as a single table and rarely as two tables with primary and foreign key relationships.  One-to-Many relationships are implemented by splitting the data into two tables with primary key and foreign key relationships.  Many-to-Many relationships are implemented using a junction table with the keys from both the tables forming the composite primary key of the junction table. |
| [What's the difference between a primary key and a unique key?](http://www.dotnetfunda.com/interview/exam200-whats-the-difference-between-a-primary-key-and-a-unique-key.aspx" \o "What's the difference between a primary key and a unique key?) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  Both primary key and unique enforce uniqueness of the column on which they are defined. But by default primary key creates a clustered index on the column, where are unique creates a nonclustered index by default. Another major difference is that, primary key doesn't allow NULLs, but unique key allows one NULL only. |
| [What's the difference between DELETE TABLE and TRUNCATE TABLE commands?](http://www.dotnetfunda.com/interview/exam201-whats-the-difference-between-delete-table-and-truncate-table-commands.aspx" \o "What's the difference between DELETE TABLE and TRUNCATE TABLE commands?) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  DELETE TABLE is a logged operation, so the deletion of each row gets logged in the transaction log, which makes it slow. TRUNCATE TABLE also deletes all the rows in a table, but it won't log the deletion of each row, instead it logs the deallocation of the data pages of the table, which makes it faster. Of course. |
| [What is a transaction and what are ACID properties?](http://www.dotnetfunda.com/interview/exam202-what-is-a-transaction-and-what-are-acid-properties.aspx" \o "What is a transaction and what are ACID properties?) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  A transaction is a logical unit of work in which, all the steps must be performed or none. ACID stands for Atomicity, Consistency, Isolation, Durability. These are the properties of a transaction. For more information and explanation of these properties, see SQL Server books online or any RDBMS fundamentals text book. |
| [What's the maximum size of a row?](http://www.dotnetfunda.com/interview/exam203-whats-the-maximum-size-of-a-row.aspx" \o "What's the maximum size of a row?) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  8060 bytes. Don't be surprised with questions like 'what is the maximum number of columns per table'. Check out SQL Server books online for the page titled: "Maximum Capacity Specifications". |
| [Difference Between Implict Transaction And Explict Transaction](http://www.dotnetfunda.com/interview/exam205-difference-between-implict-transaction-and-explict-transaction.aspx" \o "Difference Between Implict Transaction And Explict Transaction) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  Implicit Transaction is the auto commit. There is no beginning or ending of the transaction.   Explicit Transaction has the beginning, ending and rollback of transactions with the command  Begin Transaction  Commit Transaction and  Rollback Transation  In the explicit transaction, if an error occurs in between we can rollback to the begining of the transaction which cannot be done in implicit transaction. |
| [what is the diff between a HAVING CLAUSE and a WHERE CLAUSE?](http://www.dotnetfunda.com/interview/exam219-what-is-the-diff-between-a-having-clause-and-a-where-clause.aspx" \o "what is the diff between a HAVING CLAUSE and a WHERE CLAUSE?) Posted by: [Majith](http://www.dotnetfunda.com/profile/majith.aspx)  You can use Having Clause with the GROUP BY function in query and WHERE Clause is applied to each row before they are part of the GROUP BY function in a query. |
| [How to change Database name in SQL Server?](http://www.dotnetfunda.com/interview/exam226-how-to-change-database-name-in-sql-server.aspx" \o "How to change Database name in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  Use following code   Supported in SQL Server 2000 and 2005  exec sp\_renamedb "test", "test1"   Supported in SQL Server 2005 and later version  ALTER Database "test1" Modify Name="test" |

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| [Difference between Primary key Constraint and Unique key Constraint in SQL Server.](http://www.dotnetfunda.com/interview/exam277-difference-between-primary-key-constraint-and-unique-key-constraint-in-sql.aspx" \o "Difference between Primary key Constraint and Unique key Constraint in SQL Server.) Posted by: [Anitha](http://www.dotnetfunda.com/profile/anitha.aspx)  **Unique Key Constraint:**  The column values should retain uniqueness.  It allows null values in the column.  It will create non-clustered index by default.  Any number of unique constraints can be added to a table.   **Primary Key Constraint:**  Primary key will create column data uniqueness in the table.  It Wont allow Null values.  By default Primary key will create clustered index.  Only one Primary key can be created for a table.  Multiple columns can be consolidated to form a single primary key.   Source: **http://interviews.dotnetthread.com/** |
| [What is cursor in SQL Server?](http://www.dotnetfunda.com/interview/exam296-what-is-cursor-in-sql-server.aspx" \o "What is cursor in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  A cursor is a set of rows together with a pointer that identifies a current row.   In other word, Cursor is a database object used by applications to manipulate data in a set on a row-by-row basis, its like recordset in the ASP and visual basic.   Typical syntax of cursor is   DECLARE @fName varchar(50), @lName varchar(50)  DECLARE cursorName CURSOR -- Declare cursor  LOCAL SCROLL STATIC  FOR  Select firstName, lastName FROM myTable  OPEN cursorName -- open the cursor  FETCH NEXT FROM cursorName  INTO @fName, @lName  PRINT @fName + ' ' + @lName -- print the name  WHILE @@FETCH\_STATUS = 0  BEGIN  FETCH NEXT FROM cursorName  INTO @fName, @lName  PRINT @fName + ' ' + @lName -- print the name  END    CLOSE cursorName -- close the cursor  DEALLOCATE cursorName -- Deallocate the cursor  To know more about cursor, see  http://www.mssqlcity.com/Articles/General/UseCursor.htm |
| [What is #temp table and @table variable in SQL Server?](http://www.dotnetfunda.com/interview/exam297-what-is-temp-table-and-table-variable-in-sql-server.aspx" \o "What is #temp table and @table variable in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  **#temp Table (Temporary Table)**   temp table is a temporary table that is generally created to store session specific data. Its kind of normal table but it is created and populated on disk, in the system database tempdb — with a session-specific identifier packed onto the name, to differentiate between similarly-named #temp tables created from other sessions.   The data in this #temp table (in fact, the table itself) is visible only to the current scope. Generally, the table gets cleared up automatically when the current procedure goes out of scope, however, we should manually clean up the data when we are done with it.   Syntax:   -- create temporary table  CREATE TABLE #myTempTable (  AutoID int,  MyName char(50) )    -- populate temporary table  INSERT INTO #myTempTable (AutoID, MyName )  SELECT AutoID, MyName  FROM myOriginalTable  WHERE AutoID <= 50000      -- Drop temporary table  drop table #myTempTable  **@table variable**  table variable is similar to temporary table except with more flexibility. It is not physically stored in the hard disk, it is stored in the memory. We should choose this when we need to store less 100 records.   Syntax:   DECLARE @myTable TABLE (  AutoID int,  myName char(50) )    INSERT INTO @myTable (AutoID, myName )  SELECT YakID, YakName  FROM myTable  WHERE AutoID <= 50  We don't need to drop the @temp variable as this is created inside the memory and automatically disposed when scope finishes. |
| [How to return XML in SQL Server?](http://www.dotnetfunda.com/interview/exam298-how-to-return-xml-in-sql-server.aspx" \o "How to return XML in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  We can use FOR XML statement at the end of the query to return xml data from the SQL Server.   select \* from mytable for xml auto  There are three mode of returning XML and they are auto, raw and explicit   For more details see http://www.sqljunkies.ddj.com/Article/296D1B56-8BDD-4236-808F-E62CC1908C4E.scuk |
| [What is OPENXML in SQL Server?](http://www.dotnetfunda.com/interview/exam299-what-is-openxml-in-sql-server.aspx" \o "What is OPENXML in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  OPENXML can parse the xml data in SQL server very efficiently in SQL Server. OpenXML primarily gives the ability to insert XML data to the relational database, however we can query the data too using OpenXML. We need to specify the path of the xml element using xpath.   Syntax:   DECLARE @index int  DECLARE @xmlString varchar(8000)  SET @xmlString ='<Persons>  <Person id="1">  <Name>Mohan</Name>  <PhoneNo>34343</PhoneNo>  </Person>  <Person id="2">  <Name>Sita</Name>  <PhoneNo>23432</PhoneNo>  </Person>  </Persons>'    EXEC sp\_xml\_preparedocument @index OUTPUT, @xmlString    SELECT \*  FROM OPENXML (@index, 'Persons/Person')  WITH (id Varchar(10), Name varchar(100) 'Name' , PhoneNo Varchar(50) 'PhoneNo')    EXEC sp\_xml\_removedocument @index  The above code snippet will give following result.  ---------------------------------  1 Mohan 34343  2 Sita 23432  --------------------------------- |
| [What is the use of COALESCE in SQL Server?](http://www.dotnetfunda.com/interview/exam300-what-is-the-use-of-coalesce-in-sql-server.aspx" \o "What is the use of COALESCE in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  Coalesce returns the first non-null expression among its arguments.   Lets say we have to return a non-null from more than one column, then we can use COALESCE function.   SELECT COALESCE(hourly\_wage, salary, commission) AS 'Total Salary' FROM wages  In this case,   If hourly\_wage is not null and other two columns are null then hourly\_wage will be returned.  If hourly\_wage, commission are null and salary is not null then salary will be returned.  If commission is non-null and other two columns are null then commission will be returned. |
| [What are joins in SQL Server?](http://www.dotnetfunda.com/interview/exam301-what-are-joins-in-sql-server.aspx" \o "What are joins in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  Using joins, we can get the data from two or more tables based on logical condition between the tables.   Use following article to know about all types of joins   http://www.techbubbles.com/sql-server/joins-in-sql-server/ |
|  |
| [which Caluse returns only one copy of each set of duplicate rows selected](http://www.dotnetfunda.com/interview/exam319-which-caluse-returns-only-one-copy-of-each-set-of-duplicate-rows-selected.aspx" \o "which Caluse returns only one copy of each set of duplicate rows selected) Posted by: [Vijay20delhi](http://www.dotnetfunda.com/profile/vijay20delhi.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are the types of triggers and how the sequence of firing in text item?](http://www.dotnetfunda.com/interview/exam336-what-are-the-types-of-triggers-and-how-the-sequence-of-firing-in-text-item.aspx" \o "What are the types of triggers and how the sequence of firing in text item?) Posted by: [Charugoel](http://www.dotnetfunda.com/profile/charugoel.aspx)  Triggers can be classified as Key Triggers, Mouse Triggers ,Navigational Triggers.  Key Triggers :: Key Triggers are fired as a result of Key action.e.g :: Key-next-field, Key-up,Key-Down  Mouse Triggers :: Mouse Triggers are fired as a result of the mouse navigation.e.g. When-mouse-button-presed,when-mouse-doubleclicked,etc  Navigational Triggers :: These Triggers are fired as a result of Navigation. E.g : Post-Text-item,Pre-text-item.  We also have event triggers like when ?Vnew-form-instance and when-new-block-instance.  We cannot call restricted procedures like go\_to(??my\_block.first\_item??) in the Navigational triggers  But can use them in the Key-next-item.  The Difference between Key-next and Post-Text is an very important question. The key-next is fired as a result of the key action while the post text is fired as a result of the mouse movement. Key next will not fire unless there is a key event.  The sequence of firing in a text item are as follows ::  a) pre - text  b) when new item  c) key-next  d) when validate  e) post text |
| [What is the difference between DELETE and TRUNCATE?](http://www.dotnetfunda.com/interview/exam349-what-is-the-difference-between-delete-and-truncate.aspx" \o "What is the difference between DELETE and TRUNCATE?) Posted by: [Deepak](http://www.dotnetfunda.com/profile/deepak.aspx)  In TRUNCATE we can not rollback..  In DELETE we can rollback |
| [Some more differences related to Truncate and Delete](http://www.dotnetfunda.com/interview/exam353-some-more-differences-related-to-truncate-and-delete.aspx" \o "Some more differences related to Truncate and Delete) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  1) Delete keep the lock over each row where Truncate keps the lock on table not on all the row   2) Counter of the Identity column is reset in Truncate where it is not reset in Delete.   3) Trigger is not fired in Truncate where as trigger is fired in Delete. |
| [An automatic commit ocurrs under the following circumstances](http://www.dotnetfunda.com/interview/exam361-an-automatic-commit-ocurrs-under-the-following-circumstances.aspx" \o "An automatic commit ocurrs under the following circumstances) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are the properties of the Relational tables?](http://www.dotnetfunda.com/interview/exam371-what-are-the-properties-of-the-relational-tables.aspx" \o "What are the properties of the Relational tables?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  Relational tables have six properties  1. Values are atomic.  2. Column values are of the same kind.  3. Each row is unique.  4. The sequence of columns is insignificant.  5. The sequence of rows is insignificant.  6. Each column must have a unique name.    **Values Are Atomic**  Columns in a relational table are not repeating group or arrays. Such tables are referred to as being in the "first normal form" (1NF). The atomic value property of relational tables is important because it is one of the cornerstones of the relational model.  The key benefit of the one value property is that it simplifies data manipulation logic.    **Column Values Are of the Same Kind**  All values in a column come from the same set of values or domain. For example, a Product\_Price column contains only specific to product price. It never contains other information such as comments, status flags, or even weekly salary.  It simplifies data access because developers and users can be certain of the type of data contained in a given column. It also simplifies data validation. Because all values are from the same domain, the domain can be defined and enforced with the Data Definition Language (DDL) of the database software.    **Each Row is Unique**  Each unique row ensures that no two rows in a relational table are identical; there is at least one column, or set of columns, the values of which uniquely identify each row in the table. Such columns are called primary keys.  This property guarantees that every row in a relational table is meaningful and that a specific row can be identified by specifying the primary key value.    **The Sequence of Columns is Insignificant**  Ordering of the columns in the relational table has no meaning. Columns can be retrieved in any order and in various sequences. The benefit of this property is that it enables many users to share the same table without concern of how the table is organized. It also permits the physical structure of the database to change without affecting the relational tables.    **The Sequence of Rows is Insignificant**  This property is analogous the one above but applies to rows instead of columns. The main benefit is that the rows of a relational table can be retrieved in different order and sequences. Adding information to a relational table is simplified and does not affect existing queries.    **Each Column Has a Unique Name**  Because the sequence of columns is insignificant, columns must be referenced by name and not by position. In general, a column name need not be unique within an entire database but only within the table to which it belongs. |
| [How do you optimize stored procedures in SQL Server 2005](http://www.dotnetfunda.com/interview/exam372-how-do-you-optimize-stored-procedures-in-sql-server-2005.aspx" \o "How do you optimize stored procedures in SQL Server 2005) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  1. Use as much as possible WHERE clause filters. Where Clause is the most important part for optimization  2. Select only those fields which really require.  3. Joins are expensive in terms of time. Make sure that use all the keys that relate the two tables together and don't join to unused tables, always try to join on indexed fields. The join type is important as well (INNER, OUTER). |
| [What is DESCRIBE command in SQL Server 2005? What is its purpose? How to use it?](http://www.dotnetfunda.com/interview/exam373-what-is-describe-command-in-sql-server-2005-what-is-its-purpose-how-to-us.aspx" \o "What is DESCRIBE command in SQL Server 2005? What is its purpose? How to use it?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  DESCRIBE is used to see table structure. In SQL server 2005 we can use sp\_columns, sp\_tables or sp\_help.   sp\_columns  will show list of columns and its details in table.  sp\_tables will show list of tables in the database |

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| [What is the Maximum number of input and output parameters in Stored procedure in SQL Server 2000 ?](http://www.dotnetfunda.com/interview/exam401-what-is-the-maximum-number-of-input-and-output-parameters-in-stored-procedu.aspx" \o "What is the Maximum number of input and output parameters in Stored procedure in SQL Server 2000 ?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  1024 |
| [What are the limits of Sql Server 2000?](http://www.dotnetfunda.com/interview/exam402-what-are-the-limits-of-sql-server-2000.aspx" \o "What are the limits of Sql Server 2000?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  When you are creating or changing a stored procedure,please keep in mind that  The name of the procedure is a standard Transact-SQL identifier. The maximum length of any identifier is 128 characters.  Stored procedures may contain up to 1,024 input and output parameters.  The body of the stored procedure consists of one or more  Transact-SQL statements. The maximum size of the body of the stored procedure is 128MB. |
| [How you can get the last identity value inserted in any table ?](http://www.dotnetfunda.com/interview/exam403-how-you-can-get-the-last-identity-value-inserted-in-any-table.aspx" \o "How you can get the last identity value inserted in any table ?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  SQL Server 2000 has a System Variable @@IDENTITY which gives the last identity element value inserted in any table |
| [What is the maximum size of an SQL Server 2000 Database?](http://www.dotnetfunda.com/interview/exam404-what-is-the-maximum-size-of-an-sql-server-2000-database.aspx" \o "What is the maximum size of an SQL Server 2000 Database?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  The maximum size for SQL Server 2000 databases is 1,048,516 TB. Each database can contain up to 32,767 files, and the maximum size of each file is 32TB |
| [how many database can be created on MSSQL Server 2000](http://www.dotnetfunda.com/interview/exam405-how-many-database-can-be-created-on-mssql-server-2000.aspx" \o "how many database can be created on MSSQL Server 2000) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are the extensions of these three type of file in above question.](http://www.dotnetfunda.com/interview/exam406-what-are-the-extensions-of-these-three-type-of-file-in-above-question.aspx" \o "What are the extensions of these three type of file in above question.) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  Primary data files --->> .mdf.  Secondary data files --->> .ndf.  log files --->> .ldf |
| [how you can rename a database ?](http://www.dotnetfunda.com/interview/exam407-how-you-can-rename-a-database.aspx" \o "how you can rename a database ?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  o rename a database first get the database into Single user mode . by using the query below ( run these query in query analyzer)   ALTER DATABASE DBMydb SET SINGLE\_USER WITH ROLLBACK IMMEDIATE   then rename the database using sp\_rename   sp\_renamedb 'DBMydb', 'DBmydb\_new'   then change the access mode of the database to multiuser   ALTER DATABASE DBmydb\_new SET MULTI\_USER |
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| [What is the use of @@TRANCOUNT in SQL Server?](http://www.dotnetfunda.com/interview/exam413-what-is-the-use-of-trancount-in-sql-server.aspx" \o "What is the use of @@TRANCOUNT in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  Returns the number of active transactions for the current connection.   PRINT @@TRANCOUNT  -- The BEGIN TRAN statement will increment the transaction count by 1.  BEGIN TRAN  PRINT @@TRANCOUNT  -- The COMMIT statement will decrement the transaction count by 1.  COMMIT  PRINT @@TRANCOUNT  --Results  --0  --1  --0 |
| [What is the maximum limit for Primary Key?](http://www.dotnetfunda.com/interview/exam418-what-is-the-maximum-limit-for-primary-key.aspx" \o "What is the maximum limit for Primary Key?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  10 fields in MS Acces  900 Bytes in SQL Server |
| [What is a Stored Procedure?](http://www.dotnetfunda.com/interview/exam426-what-is-a-stored-procedure.aspx" \o "What is a Stored Procedure?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  Its nothing but a set of T-SQL statements combined to perform a single task of several tasks. Its basically like a Macro so when you invoke the Stored procedure, you actually run a set of statements. |
| [What is an Index?](http://www.dotnetfunda.com/interview/exam427-what-is-an-index.aspx" \o "What is an Index?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  When queries are run against a db, an index on that db basically helps in the way the data is sorted to process the query for faster and data retrievals are much faster when we have an index. |
| [What command do we use to rename a db?](http://www.dotnetfunda.com/interview/exam428-what-command-do-we-use-to-rename-a-db.aspx" \o "What command do we use to rename a db?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  sp\_renamedb ‘oldname’ , ‘newname’ |
| [What do you mean by COLLATION?](http://www.dotnetfunda.com/interview/exam429-what-do-you-mean-by-collation.aspx" \o "What do you mean by COLLATION?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  Collation is basically the sort order. There are three types of sort order Dictionary case sensitive, Dictonary - case insensitive and Binary. |
| [What are the OS services that the SQL Server installation adds?](http://www.dotnetfunda.com/interview/exam430-what-are-the-os-services-that-the-sql-server-installation-adds.aspx" \o "What are the OS services that the SQL Server installation adds?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  MS SQL SERVER SERVICE, SQL AGENT SERVICE, DTC (Distribution transac co-ordinator) |
| [What is log shipping?](http://www.dotnetfunda.com/interview/exam431-what-is-log-shipping.aspx" \o "What is log shipping?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  Logshipping is a new feature of SQL Server 2000. We should have two SQL Server - Enterprise Editions. From Enterprise Manager we can configure the logshipping. In logshipping the transactional log file from one server is automatically updated into the backup database on the other server. If one server fails, the other server will have the same db and we can use this as the DR (disaster recovery) plan. |

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| [Where do you think the users names and passwords will be stored in sql server?](http://www.dotnetfunda.com/interview/exam432-where-do-you-think-the-users-names-and-passwords-will-be-stored-in-sql-serv.aspx" \o "Where do you think the users names and passwords will be stored in sql server?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  They get stored in master db in the sysxlogins table. |
| [What is a deadlock?](http://www.dotnetfunda.com/interview/exam449-what-is-a-deadlock.aspx" \o "What is a deadlock?) Posted by: [Sudhak](http://www.dotnetfunda.com/profile/sudhak.aspx)  Deadlock is a situation when two processes, each having a lock on one piece of data, attempt to acquire a lock on the other’s piece. Each process would wait indefinitely for the other to release the lock, unless one of the user processes is terminated.  SQL Server detects deadlocks and terminates one user’s process |
| [what is ACID?](http://www.dotnetfunda.com/interview/exam450-what-is-acid.aspx" \o "what is ACID?) Posted by: [Sudhak](http://www.dotnetfunda.com/profile/sudhak.aspx)  ACID (an acronymn for Atomicity Consistency Isolation Durability) is a concept that Database Professionals generally look for when evaluating databases and application architectures. For a reliable database all this four attributes should be achieved.   Atomicity is an all-or-none proposition.   Consistency guarantees that a transaction never leaves your database in a half-finished state.   Isolation keeps transactions separated from each other until they’re finished.   Durability guarantees that the database will keep track of pending changes in such a way that the server can recover from an abnormal termination.   Above four rules are very important for any developers dealing with databases |
| [What Is DTS?](http://www.dotnetfunda.com/interview/exam451-what-is-dts.aspx" \o "What Is DTS?) Posted by: [Sudhak](http://www.dotnetfunda.com/profile/sudhak.aspx)  DTS is a set of tools you can use to import, export, and transform heterogeneous data between one or more data sources, such as Microsoft SQL Server, Microsoft Excel, or Microsoft Access. Connectivity is provided through OLE DB, an open-standard for data access. ODBC (Open Database Connectivity) data sources are supported through the OLE DB Provider for ODBC. |
| [What is Log Shipping?](http://www.dotnetfunda.com/interview/exam457-what-is-log-shipping.aspx" \o "What is Log Shipping?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  In Microsoft SQL Server, you can use log shipping to feed transaction logs from one database to another on a constant basis. Continually backing up the transaction logs from a source database and then copying and restoring the logs to a destination database keeps the destination database synchronized with the source database. This allows you to have a backup server and also provides a way to offload query processing from the main computer (the source server) to read-only destination servers. |
| [What are sequence diagrams? What you will get out of this sequence diagrams?](http://www.dotnetfunda.com/interview/exam458-what-are-sequence-diagrams-what-you-will-get-out-of-this-sequence-diagrams.aspx" \o "What are sequence diagrams? What you will get out of this sequence diagrams?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  Sequence diagrams document the interactions between classes to achieve a result, such as a use case. Because UML is designed for object-oriented programming, these communications between classes are known as messages. The sequence diagram lists objects horizontally, and time vertically, and models these messages over time. |
| [What is a tuple?](http://www.dotnetfunda.com/interview/exam459-what-is-a-tuple.aspx" \o "What is a tuple?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  A tuple is an instance of data within a relational database. |
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| [What is the purpose of UPDATE STATISTICS?](http://www.dotnetfunda.com/interview/exam460-what-is-the-purpose-of-update-statistics.aspx" \o "What is the purpose of UPDATE STATISTICS?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  Updates information about the distribution of key values for one or more statistics groups (collections) in the specified table or indexed view. |
| [What is RAID and what are different types of RAID configurations?](http://www.dotnetfunda.com/interview/exam461-what-is-raid-and-what-are-different-types-of-raid-configurations.aspx" \o "What is RAID and what are different types of RAID configurations?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  RAID stands for Redundant Array of Inexpensive Disks, used to provide fault tolerance to database servers. There are six RAID levels 0 through 5 offering different levels of performance, fault tolerance |
| [What are three SQL keywords used to change or set someone’s permissions?](http://www.dotnetfunda.com/interview/exam462-what-are-three-sql-keywords-used-to-change-or-set-someones-permissions.aspx" \o "What are three SQL keywords used to change or set someone’s permissions?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  Grant, Deny and Revoke |
| [What is DTC?](http://www.dotnetfunda.com/interview/exam463-what-is-dtc.aspx" \o "What is DTC?) Posted by: [BABU\_AKKANDI](http://www.dotnetfunda.com/profile/babu_akkandi.aspx)  The Microsoft Distributed Transaction Coordinator (MS DTC) is a transaction manager that allows client applications to include several different sources of data in one transaction. MS DTC coordinates committing the distributed transaction across all the servers enlisted in the transaction |
| [How to get GUID in sql server?](http://www.dotnetfunda.com/interview/exam508-how-to-get-guid-in-sql-server.aspx" \o "How to get GUID in sql server?) Posted by: [Neeks](http://www.dotnetfunda.com/profile/neeks.aspx)  select newid().  This will return you GUID |
| [What is Check Constraint?](http://www.dotnetfunda.com/interview/exam509-what-is-check-constraint.aspx" \o "What is Check Constraint?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  Check constraint specifies a condition that is enforced for each row of the table on which the constraint is defined. Once constraint is defined, insert or update to the data within the tables is checked against the defined constraint. |
| [Can we create a Foreign Key with out Primary Key?](http://www.dotnetfunda.com/interview/exam510-can-we-create-a-foreign-key-with-out-primary-key.aspx" \o "Can we create a Foreign Key with out Primary Key?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  **Yes. If the table has Unique Key then it is posible to create a Foreign key constraint** |
| [Difference between varchar and char:](http://www.dotnetfunda.com/interview/exam521-difference-between-varchar-and-char.aspx" \o "Difference between varchar and char:) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  **varchar**are variable length strings with a maximum length specified. If a string is less than the maximum length, then it is stored verbatim without any extra characters.  **char** are fixed length strings with a set length specified. If a string is less than the set length, then it is padded with extra characters so that it's length is the set length.   Use **varchar**when your strings do not have a fixed length (e.g. names, cities, etc.)   Use**char** when your strings are always going to be the same length (e.g. phone numbers, zip codes, etc). |

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| [What is blocking in SQL Server?](http://www.dotnetfunda.com/interview/exam548-what-is-blocking-in-sql-server.aspx" \o "What is blocking in SQL Server?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  Blocking in SQL Server is a scenario where one connection to SQL Server locks one or more records, and a second connection to SQL Server requires a conflicting lock type on the record or records locked by the first connection. This causes the second connection to wait until the first connection releases its locks. By default, a connection will wait an unlimited amount of time for the blocking lock to go away.   Blocking is not the same thing as a deadlock. For more details on SQL Server blocking visit this nice article  <http://www.sql-server-performance.com/tips/blocking_p1.aspx> |
| [What is the use of bit data type and what kind of data is stored into it?](http://www.dotnetfunda.com/interview/exam549-what-is-the-use-of-bit-data-type-and-what-kind-of-data-is-stored-into-it.aspx" \o "What is the use of bit data type and what kind of data is stored into it?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  Bit datatype is used to store boolean information like 1 or 0 where 1 is considered as true and 0 is considered as false.   While querying the database we need to use 1 or 0 in the select statement to filter out the data instead of true and false. |
| [What is user-defined data type in SQL Server?](http://www.dotnetfunda.com/interview/exam550-what-is-user-defined-data-type-in-sql-server.aspx" \o "What is user-defined data type in SQL Server?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  User-defined data types can be used when several tables must store the same type of data in a column and you must ensure that these columns have exactly the same data type, length, and nullability.   For more details, visit <http://msdn.microsoft.com/en-us/library/aa933121(SQL.80).aspx>   Thanks |
| [What is user-defined functions in SQL Server?](http://www.dotnetfunda.com/interview/exam551-what-is-user-defined-functions-in-sql-server.aspx" \o "What is user-defined functions in SQL Server?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  User-Defined Functions allows to define custom T-SQL functions that can accept zero or more parameters and return a single scalar data value or a table data type.   In terms of functionality it is similar to C# or VB.NET functions except the fact that code is written in T-SQL :)   For more visit <http://www.sqlteam.com/article/user-defined-functions>   Thanks |
| [What is the use of Keyword WITH ENCRYPTION keyword in SQL Server?](http://www.dotnetfunda.com/interview/exam552-what-is-the-use-of-keyword-with-encryption-keyword-in-sql-server.aspx" \o "What is the use of Keyword WITH ENCRYPTION keyword in SQL Server?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  WITH ENCRYPTION keyword is used to encrypt the text of the Stored Procedure.   Once SPs are encrypted, the original text of the SP are not visible. User who has created the SP will need to save the text to be used to create SP somewhere safe to reuse it again or Users that have access to system tables or database files can retrieve the encrypted text. |
| [What is Distributed Queries in SQL Server?](http://www.dotnetfunda.com/interview/exam553-what-is-distributed-queries-in-sql-server.aspx" \o "What is Distributed Queries in SQL Server?) Posted by: [Poster](http://www.dotnetfunda.com/profile/poster.aspx)  Distributed queries access data from multiple heterogeneous data sources. These data sources can be stored on either the same or different computers. Microsoft SQL Server supports distributed queries by using OLE DB.   SQL Server users can use distributed queries to access the following:   #. Distributed data stored in multiple instances of SQL Server.  #. Heterogeneous data stored in various relational and nonrelational data sources accessed by using an OLE DB provider.   For more details visit <http://msdn.microsoft.com/en-us/library/ms188721.aspx>   Thanks |
| [What is Subquery in SQL Server?](http://www.dotnetfunda.com/interview/exam555-what-is-subquery-in-sql-server.aspx" \o "What is Subquery in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  A subquery is a query that is nested inside a SELECT, INSERT, UPDATE, or DELETE statement, or inside another subquery. Subquery is an inner query or inner select, while the statement containing a subquery is also called an outer query or outer select.   For example   SELECT CustName, CustOrderDate, (SELECT DateTimeOrdered FROM OrderDetails as ODetails WHERE Ord.SalesOrderID = ODetails.SalesOrderID) AS OrderedDateTime FROM Orders AS Ord |
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| [What are the restrictions of using Subquery in SQL Server?](http://www.dotnetfunda.com/interview/exam556-what-are-the-restrictions-of-using-subquery-in-sql-server.aspx" \o "What are the restrictions of using Subquery in SQL Server?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  Subquery can be used where an expression is possible. There are certain limitation of using Subquery, they are   A subquery is subject to the following restrictions:   #. The select list of a subquery introduced with a comparison operator can include only one expression or column name (except that EXISTS and IN operate on SELECT \* or a list, respectively).   #. If the WHERE clause of an outer query includes a column name, it must be join-compatible with the column in the subquery select list.   **#. The ntext, text, and image data types cannot be used in the select list of subqueries.**   #. Because they must return a single value, subqueries introduced by an unmodified comparison operator (one not followed by the keyword ANY or ALL) cannot include GROUP BY and HAVING clauses.   #. The DISTINCT keyword cannot be used with subqueries that include GROUP BY.   #. The COMPUTE and INTO clauses cannot be specified.   #. ORDER BY can only be specified when TOP is also specified.   #. A view created by using a subquery cannot be updated. |
| [How many database(s) can have in an instance of SQL Server 2005 ?](http://www.dotnetfunda.com/interview/exam557-how-many-databases-can-have-in-an-instance-of-sql-server-2005.aspx" \o "How many database(s) can have in an instance of SQL Server 2005 ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [A fill factor of 0% and 100% means the same thing to SQL Server](http://www.dotnetfunda.com/interview/exam558-a-fill-factor-of-0-and-100-means-the-same-thing-to-sql-server.aspx" \o "A fill factor of 0% and 100% means the same thing to SQL Server) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Root Cause for Increasing the Transaction Log.](http://www.dotnetfunda.com/interview/exam559-root-cause-for-increasing-the-transaction-log.aspx" \o "Root Cause for Increasing the Transaction Log.) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  **1.**Uncommitted Transactions.  **2.**Extremely Large Transactions.  **3.**Operations : DBCC DBREINDEX / CREATE INDEX.  **4.**Client Applications do not process all results.  **5.**While Restoring from Transaction Log Backups.  **6.**Queries Time-Out before a transaction log completes the expansion and you receive false 'Log Full' error message. |
| [Default security model in Microsoft SQL Server ?](http://www.dotnetfunda.com/interview/exam563-default-security-model-in-microsoft-sql-server.aspx" \o "Default security model in Microsoft SQL Server ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Microsoft SQL Server's default protocol ?](http://www.dotnetfunda.com/interview/exam564-microsoft-sql-servers-default-protocol.aspx" \o "Microsoft SQL Server's default protocol ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is Two-Phase Commit ?](http://www.dotnetfunda.com/interview/exam565-what-is-two-phase-commit.aspx" \o "What is Two-Phase Commit ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  Two-phased commits are the way to keep multiple servers synchronized.  (Replication also can achieve this)  Two-phased commits are considered to be “Tight Consistency.”  In SQL Server 6.0, We must use the API functions and write some fairly advanced code.  In SQL Server 6.5, The DTC (Distributed Transaction Coordinator) makes the two-phase commit easy to implement. |
| [What is Database snapshot ?](http://www.dotnetfunda.com/interview/exam566-what-is-database-snapshot.aspx" \o "What is Database snapshot ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  A read-only, static view of a database at the moment of snapshot creation. |

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| [What is Deferred transaction ?](http://www.dotnetfunda.com/interview/exam567-what-is-deferred-transaction.aspx" \o "What is Deferred transaction ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  A transaction that is not committed when the roll forward phase of recovery finishes, and that cannot be rolled back during database startup because the data required by rollback is offline. This data can reside in either a page or a file. |
| [What is Dirty pages ?](http://www.dotnetfunda.com/interview/exam568-what-is-dirty-pages.aspx" \o "What is Dirty pages ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  Buffer pages that contain modifications that have not been written to disk. |
| [What is DRI ?](http://www.dotnetfunda.com/interview/exam569-what-is-dri.aspx" \o "What is DRI ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  **D**eclarative **R**eferential **I**ntegrity :  The DRI actions enforced by FOREIGN KEY constraints can be supplemented with additional referential integrity logic defined in triggers on a table. |
| [What is ETL ?](http://www.dotnetfunda.com/interview/exam570-what-is-etl.aspx" \o "What is ETL ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  **E**xtraction, **T**ransformation, and **L**oading.  The complex process of copying and cleaning data from heterogeneous sources. Important part of development projects for data warehousing and business intelligence(**BI**). |
| [What is Fragmentation ?](http://www.dotnetfunda.com/interview/exam571-what-is-fragmentation.aspx" \o "What is Fragmentation ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  A difference between the **physical** and **logical** ordering of index data that can occur when data modifications are made. We can reduce fragmentation and improve read-ahead performance by dropping and re-creating a clustered index (or) DBCC DBREINDEX. |
| [What is Lock escalation ?](http://www.dotnetfunda.com/interview/exam572-what-is-lock-escalation.aspx" \o "What is Lock escalation ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  The process of converting many fine-grain locks into fewer coarse-grain locks.  ie:  fine-grain = ROW  coarse-grain = TABLE |
| [What is noise word ?](http://www.dotnetfunda.com/interview/exam573-what-is-noise-word.aspx" \o "What is noise word ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  Words that do not participate in a full-text query search, such as &quot;a&quot;, &quot;and&quot;, and &quot;the&quot;. |
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| [What is point-in-time recovery ?](http://www.dotnetfunda.com/interview/exam574-what-is-point-in-time-recovery.aspx" \o "What is point-in-time recovery ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  The process of recovering only the transactions within a log backup that were committed before a specific point in time, instead of recovering the whole backup. |
| [What is Query binding ?](http://www.dotnetfunda.com/interview/exam575-what-is-query-binding.aspx" \o "What is Query binding ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  The binding of an object to a query. |
| [What is Roll forward ?](http://www.dotnetfunda.com/interview/exam576-what-is-roll-forward.aspx" \o "What is Roll forward ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  To apply logged changes to the data in a roll forward set to bring the data forward in time. |
| [What is write-ahead log ?](http://www.dotnetfunda.com/interview/exam577-what-is-write-ahead-log.aspx" \o "What is write-ahead log ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  A transaction logging method in which the log is always written prior to the data. |
| [How do you Copy Databases to SQL SERVER 2005 from various versions (6.0/6.5/7.0/2000) ?](http://www.dotnetfunda.com/interview/exam578-how-do-you-copy-databases-to-sql-server-2005-from-various-versions-6065.aspx" \o "How do you Copy Databases to SQL SERVER 2005 from various versions (6.0/6.5/7.0/2000) ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  In SQL Server 2005, we can create a new database by restoring a database backup taken using SQL Server 7.0, 2000 or 2005.   SQL Server 6.5 or earlier are cannot be restored in SQL Server 2005.   But, backups of master, model and msdb that were created by using SQL Server 7.0 or 2000 cannot be restored to SQL Server 2005.   SQL Server 7.0 log backups that contain create-index operations cannot be restored to SQL Server 2000 or 2005.   SQL Server 2005 uses a different default path than earlier versions. To restore a database created in the default location of either SQL Server 7.0 or 2000 from backups, we must use the MOVE option.   When we install SQL Server 2005, any existing databases (SQL Server 7 or 2000) are automatically upgraded. If a database that was created by using SQL Server 6.5 or earlier has not been upgraded to SQL Server 2005, we have to convert it to SQL Server 2005 by using one of the following methods:   **1.** Use the Integration Services (SSIS) Import and Export Wizard.  **2.** Export the data into a data file using "**BCP out**" in Character mode and import the data into a SQL Server 2005 database using "**BCP in**" with the "**-V**". |
| [Number of PRIMARY KEY/FOREIGN KEY Constraints in a Table in SQL Server 2005/2008 ?](http://www.dotnetfunda.com/interview/exam579-number-of-primary-keyforeign-key-constraints-in-a-table-in-sql-server-2005.aspx" \o "Number of PRIMARY KEY/FOREIGN KEY Constraints in a Table in SQL Server 2005/2008 ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is 'Self-referencing' tables in SQL Server ?](http://www.dotnetfunda.com/interview/exam580-what-is-self-referencing-tables-in-sql-server.aspx" \o "What is 'Self-referencing' tables in SQL Server ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  A FOREIGN KEY constraint can reference columns within the same table (a table itself). |
| [To modify a DEFAULT definition, We must first DELETE the existing DEFAULT definition and then Re-CREATE it with the new definition.](http://www.dotnetfunda.com/interview/exam581-to-modify-a-default-definition-we-must-first-delete-the-existing-default-d.aspx" \o "To modify a DEFAULT definition, We must first DELETE the existing DEFAULT definition and then Re-CREATE it with the new definition.) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  True |

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| [DEFAULT definitions cannot be created on columns defined with the following DATA TYPE ?](http://www.dotnetfunda.com/interview/exam582-default-definitions-cannot-be-created-on-columns-defined-with-the-following.aspx" \o "DEFAULT definitions cannot be created on columns defined with the following DATA TYPE ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is Typed vs. Untyped XML in SQL Server ? Explain with an example](http://www.dotnetfunda.com/interview/exam583-what-is-typed-vs-untyped-xml-in-sql-server-explain-with-an-example.aspx" \o "What is Typed vs. Untyped XML in SQL Server ? Explain with an example) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  **Untyped XML** :  I have created one Table named : *Table1*   CREATE TABLE TABLE2  (XMLSample XML)  GO  INSERT TABLE2 VALUES('TEST')  INSERT TABLE2 VALUES('123')  - The table should not allow any TYPE of data other than XML format with specific element. But it allows. This is called '**UnTyped XML** '.   **Typed XML** :  I create one Table with one column as XML datatype. It should allow only *INTEGER* type of data along with some specific XML Element. This is called '**Typed XML** '   **1.** I have to define one XML SCHEMA ( Type of the XML Element and Name of the Element, Etc., )   CREATE XML SCHEMA COLLECTION PandianXMLSchema AS '  <schema xmlns="http://www.w3.org/2001/XMLSchema">  <element name="Dotnetfunda" type="int"/>  </schema>'  GO  I have created one XML SCHEMA named '**PandianXMLSchema** ' ( It will say what is the name of the '**Element** ' - and Type of the Element ).   **2.** I create one Table with one column as XML datatype along with XML SCHEMA which we created above. It should allow only **INTEGER** type of data along with **Dotnetfunda**XML Element alone.   CREATE TABLE TABLE2  (XMLSample XML(PandianXMLSchema))  GO  **3.** Inserting data into the TABLE2   INSERT TABLE2 VALUES('TEST')  - It will throw an Err  Msg 6909, Level 16, State 1, Line 1  XML Validation: Text node is not allowed at this location, the type was defined with element only content or with simple content. Location: /   Because, the data '**TEST**' is not an **INTEGER** and Its not encloused with '**Dotnetfunda** ' element.   INSERT TABLE2 VALUES('123')  - It will throw an Err  Msg 6909, Level 16, State 1, Line 1  XML Validation: Text node is not allowed at this location, the type was defined with element only content or with simple content. Location: /   Because, the data '**123**' is an **INTEGER**. But Its not encloused with '**Dotnetfunda** ' element.   INSERT TABLE2 VALUES('<Dotnetfunda>TEST</Dotnetfunda>')  - It will also throw an Err   Msg 6926, Level 16, State 1, Line 1  XML Validation: Invalid simple type value: 'TEST'. Location: /\*:Dotnetfunda[1]  The data 'TEST' encloused with proper element, But Its not an **INTEGER** type.   INSERT TABLE2 VALUES('<Dotnetfunda>123</Dotnetfunda>')  (1 row(s) affected)   **XMLSample**  <Dotnetfunda>123</Dotnetfunda>   Cheers |
| [What id the Max Length of nVarchar in SQL Server?](http://www.dotnetfunda.com/interview/exam589-what-id-the-max-length-of-nvarchar-in-sql-server.aspx" \o "What id the Max Length of nVarchar in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the Max length of varchar variable in SQL Server?](http://www.dotnetfunda.com/interview/exam590-what-is-the-max-length-of-varchar-variable-in-sql-server.aspx" \o "What is the Max length of varchar variable in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How to Get SQL Server Version ?](http://www.dotnetfunda.com/interview/exam601-how-to-get-sql-server-version.aspx" \o "How to Get SQL Server Version ?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  **@@VERSION**   Returns the date, version, and processor type for the current installation of SQL Server.    The information returned by **@@VERSION**  is similar to the product name, version, platform, and file data returned by the xp\_msver stored procedure, which provides more detailed information.  SELECT **@@VERSION** |
| [What are the disadvantages/limitation of the cursor?](http://www.dotnetfunda.com/interview/exam602-what-are-the-disadvantageslimitation-of-the-cursor.aspx" \o "What are the disadvantages/limitation of the cursor?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  Cursor requires a network roundtrip each time it fetches a record, thus consume network resources.  While data processing, it issues locks on part of the table, or on the whole table. |
| [Use of Bulk Copying ?](http://www.dotnetfunda.com/interview/exam603-use-of-bulk-copying.aspx" \o "Use of Bulk Copying ?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  Bulk copying is used to transfer large amount of data. |
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| [The maximum number of columns a table can have in SQL Server?](http://www.dotnetfunda.com/interview/exam610-the-maximum-number-of-columns-a-table-can-have-in-sql-server.aspx" \o "The maximum number of columns a table can have in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What’s the difference between a primary key and a unique key?](http://www.dotnetfunda.com/interview/exam611-whats-the-difference-between-a-primary-key-and-a-unique-key.aspx" \o "What’s the difference between a primary key and a unique key?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Both primary key and unique enforce uniqueness of the column on which they are defined. But by default primary key creates a clustered index on the column, where are unique creates a nonclustered index by default. Another major difference is that, primary key doesn’t allow NULLs, but unique key allows one NULL only. |
| [Can UNIQUE KEY in SQL Server 2005 have two or more NULL?](http://www.dotnetfunda.com/interview/exam612-can-unique-key-in-sql-server-2005-have-two-or-more-null.aspx" \o "Can UNIQUE KEY in SQL Server 2005 have two or more NULL?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the page size in SQL Server?](http://www.dotnetfunda.com/interview/exam613-what-is-the-page-size-in-sql-server.aspx" \o "What is the page size in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Will COUNT(column) include columns with null values in its count?](http://www.dotnetfunda.com/interview/exam614-will-countcolumn-include-columns-with-null-values-in-its-count.aspx" \o "Will COUNT(column) include columns with null values in its count?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How can we Rollback the Transaction in DataBase?](http://www.dotnetfunda.com/interview/exam618-how-can-we-rollback-the-transaction-in-database.aspx" \o "How can we Rollback the Transaction in DataBase?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  We can Rollback the Transaction using "ROLLBACK TRANSACTION" Command |
| [How Can we Write the Transaction Block in SQL Server?](http://www.dotnetfunda.com/interview/exam619-how-can-we-write-the-transaction-block-in-sql-server.aspx" \o "How Can we Write the Transaction Block in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  BEGIN TRANSACTION   Statement 1  Statement 2  ..................  ...............  IF(@ERROR>0)  ROLLBACK TRANSACTION  ELSE  COMMIT TRANSACTION |
| [Difference Between Truncate Table and Delete Table Command in SQL Server?](http://www.dotnetfunda.com/interview/exam620-difference-between-truncate-table-and-delete-table-command-in-sql-server.aspx" \o "Difference Between Truncate Table and Delete Table Command in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  In case of Delete Statement Log is maintained. while in case of truncate command log is not maintained for each row, so we can't rollback the data in case of truncate table command. |

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| [Which is the best method to get the single value from Database?](http://www.dotnetfunda.com/interview/exam623-which-is-the-best-method-to-get-the-single-value-from-database.aspx" \o "Which is the best method to get the single value from Database?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Unique Key is smilar to Priamary Key,except it](http://www.dotnetfunda.com/interview/exam624-unique-key-is-smilar-to-priamary-keyexcept-it.aspx" \o "Unique Key is smilar to Priamary Key,except it) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What will be the output of the following code? Declare @Strings VARCHAR(20) Select @Strings ='Lakhan Pal Garg' Select SUBSTRING(@Strings,-9,16](http://www.dotnetfunda.com/interview/exam637-what-will-be-the-output-of-the-following-code-declare-strings-varchar20.aspx" \o "What will be the output of the following code? Declare @Strings VARCHAR(20) Select @Strings ='Lakhan Pal Garg' Select SUBSTRING(@Strings,-9,16) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which type of datatype is used to store IO Streams in Sql Server?](http://www.dotnetfunda.com/interview/exam638-which-type-of-datatype-is-used-to-store-io-streams-in-sql-server.aspx" \o "Which type of datatype is used to store IO Streams in Sql Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which Statement describe the COALESCE ?](http://www.dotnetfunda.com/interview/exam639-which-statement-describe-the-coalesce.aspx" \o "Which Statement describe the COALESCE ?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [A table can have maximum of 1024 partitions.](http://www.dotnetfunda.com/interview/exam645-a-table-can-have-maximum-of-1024-partitions.aspx" \o "A table can have maximum of 1024 partitions.) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is 'NEXT USED' in SQL Server ?](http://www.dotnetfunda.com/interview/exam646-what-is-next-used-in-sql-server.aspx" \o "What is 'NEXT USED' in SQL Server ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  The filegroup will accept a new partition that is created by using an ALTER PARTITION FUNCTION statement. |
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| [How do you determine the maximum nested-level of Stored Procedure ?](http://www.dotnetfunda.com/interview/exam648-how-do-you-determine-the-maximum-nested-level-of-stored-procedure.aspx" \o "How do you determine the maximum nested-level of Stored Procedure ?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  The current nested level can be determine by : @@NESTLEVEL, The maximum nested level is **32** .   ie:  **1. Creating stored procedure :**   CREATE PROC PROC\_SAMPLE1  AS  BEGIN  PRINT @@NESTLEVEL  EXEC PROC\_SAMPLE1  END  **2. Executing stored procedure :**   EXEC PROC\_SAMPLE1  **3. Result :**  1  2  3  ..  ..  32  Msg 217, Level 16, State 1, Procedure PROC\_SAMPLE1, Line 5  Maximum stored procedure, function, trigger, or view nesting level exceeded (**limit 32**). |
| [Which Function is used to count more than two billion rows in a table?](http://www.dotnetfunda.com/interview/exam653-which-function-is-used-to-count-more-than-two-billion-rows-in-a-table.aspx" \o "Which Function is used to count more than two billion rows in a table?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which of the following is a fixed length DataType?](http://www.dotnetfunda.com/interview/exam657-which-of-the-following-is-a-fixed-length-datatype.aspx" \o "Which of the following is a fixed length DataType?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [SQL Server allows for only \_\_\_\_\_ levels of nesting in CASE expressions.](http://www.dotnetfunda.com/interview/exam659-sql-server-allows-for-only-levels-of-nesting-in-case-expressions.aspx" \o "SQL Server allows for only _____ levels of nesting in CASE expressions.) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Is it possible to create Cluster Index on Unique Key Column?](http://www.dotnetfunda.com/interview/exam663-is-it-possible-to-create-cluster-index-on-unique-key-column.aspx" \o "Is it possible to create Cluster Index on Unique Key Column?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  Unique key column by default creates a non-cluster index on the column. Primary key creates cluster index on the column. The only difference is Unique key column allows only one null value. So is it possible to have cluster index on Unique key column?   The answer is YES. Though Unique key allows null value but it still maintains the uniqueness of the column. |
| [You cannot create an Index on a column of the following data type](http://www.dotnetfunda.com/interview/exam675-you-cannot-create-an-index-on-a-column-of-the-following-data-type.aspx" \o "You cannot create an Index on a column of the following data type) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [All indexes will automatically get deleted(dropped) if the table is deleted?](http://www.dotnetfunda.com/interview/exam676-all-indexes-will-automatically-get-deleteddropped-if-the-table-is-deleted.aspx" \o "All indexes will automatically get deleted(dropped) if the table is deleted?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How to get a row was inserted most recently in a table?](http://www.dotnetfunda.com/interview/exam683-how-to-get-a-row-was-inserted-most-recently-in-a-table.aspx" \o "How to get a row was inserted most recently in a table?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  select top 1 \* from tablename order by ColumnName desc |

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| [How to Get nth Record in a Table?](http://www.dotnetfunda.com/interview/exam684-how-to-get-nth-record-in-a-table.aspx" \o "How to Get nth Record in a Table?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  First Get the n records fron the table using   Select Top n FROM UserTable  Now Reverse the Order using identity Column like:  Select Top n FROM UserTable Order By 1 DESC   Now we need nth record that can be get as  SELECT TOP 1 \* FROM (Select Top n FROM UserTable Order By 1 DESC)AC   For Example i need to get 5th record From userTable then quey will be like this:   SELECT TOP 1 \* FROM (SELECT TOP 5 \* FROM UserTable Order By 1 DESC)AC |
| [What is Row\_Number()?](http://www.dotnetfunda.com/interview/exam707-what-is-rownumber.aspx" \o "What is Row_Number()?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  ROW\_NUMBER() returns a column as an expression that contain's the row number within the result set. This is only a number used in the context of the result set, if the result changes, the ROW\_NUMBER() will change. |
| [What is the difference between a Local and a Global temporary table?](http://www.dotnetfunda.com/interview/exam708-what-is-the-difference-between-a-local-and-a-global-temporary-table.aspx" \o "What is the difference between a Local and a Global temporary table?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  A local temporary table exists only for the duration of a connection or, if defined inside a compound statement, for the duration of the compound statement.   Global temporary tables (created with a double “##”) are visible to all sessions. You should always check for existence of the global temporary table before creating it… if it already exists, then you will get a duplicate object error.   Global temporary tables are dropped when the session that created it ends, and all other sessions have stopped referencing it. |
| [How to get @@ERROR and @@ROWCOUNT at the same time?](http://www.dotnetfunda.com/interview/exam709-how-to-get-error-and-rowcount-at-the-same-time.aspx" \o "How to get @@ERROR and @@ROWCOUNT at the same time?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  If @@Rowcount is checked after Error checking statement then it will have 0 as the value of @@Recordcount as it would have been reset. And if @@Recordcount is checked before the error-checking statement then @@Error would get reset. To get @@error and @@rowcount at the same time do both in same statement and store them in local variable. SELECT @RC = @@ROWCOUNT, @ER = @@ERROR |
| [What is a table called, if it has no Cluster Index?](http://www.dotnetfunda.com/interview/exam710-what-is-a-table-called-if-it-has-no-cluster-index.aspx" \o "What is a table called, if it has no Cluster Index?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  Unindexed table or Heap. |
| [What command do we use to rename a db, a table and a column?](http://www.dotnetfunda.com/interview/exam711-what-command-do-we-use-to-rename-a-db-a-table-and-a-column.aspx" \o "What command do we use to rename a db, a table and a column?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  To rename db  sp\_renamedb ‘oldname’ , ‘newname’   To rename Table  SP\_RENAME ‘oldTableName’, ‘NewTableName’   To rename Column  sp\_RENAME ‘Table\_First.Name’, ‘NameChange’ , ‘COLUMN’ |
| [Can we use Truncate command on a table which is referenced by FOREIGN KEY?](http://www.dotnetfunda.com/interview/exam713-can-we-use-truncate-command-on-a-table-which-is-referenced-by-foreign-key.aspx" \o "Can we use Truncate command on a table which is referenced by FOREIGN KEY?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  No. We cannot use Truncate command on a table with Foreign Key because of referential integrity. |
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| [Can we use NEWID(), or RAND() in function?](http://www.dotnetfunda.com/interview/exam718-can-we-use-newid-or-rand-in-function.aspx" \o "Can we use NEWID(), or RAND() in function?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  No |
| [Can we use "Print" statement in function?](http://www.dotnetfunda.com/interview/exam719-can-we-use-print-statement-in-function.aspx" \o "Can we use \"Print\" statement in function?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  No |
| [Which of the following queries generates an error when executed? DECLARE @x VARCHAR(10), @y VARCHAR(10) SET @y = '' SELECT @x/0 -- query 1 SELECT @x/2 -- query 2 SELECT @y/0 -- query 3 SELECT @y/2 -- query 4](http://www.dotnetfunda.com/interview/exam794-which-of-the-following-queries-generates-an-error-when-executed-declare.aspx" \o "Which of the following queries generates an error when executed? DECLARE @x VARCHAR(10), @y VARCHAR(10) SET @y = '' SELECT @x/0 -- query 1 SELECT @x/2 -- query 2 SELECT @y/0 -- query 3 SELECT @y/2 -- query 4) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  Answer: 3    Explanation: Queries 1 and 2 return NULL since @x is undefined. Query 4 returns 0 since the string '' is implicitly converted to 0. Query 3 returns a divide by 0 error. |
| [What type of language is the SELECT command in SQL Server?](http://www.dotnetfunda.com/interview/exam852-what-type-of-language-is-the-select-command-in-sql-server.aspx" \o "What type of language is the SELECT command in SQL Server?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  DML.   The SELECT statement is a Data Manipulation Language commend, not a Data Definition Language command. |
| [Is There any other Methods in SQL Server 2005 to Read XML Data?](http://www.dotnetfunda.com/interview/exam856-is-there-any-other-methods-in-sql-server-2005-to-read-xml-data.aspx" \o "Is There any other Methods in SQL Server 2005 to Read XML Data?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Name the method used in SQL Server to Read XML Data?](http://www.dotnetfunda.com/interview/exam857-name-the-method-used-in-sql-server-to-read-xml-data.aspx" \o "Name the method used in SQL Server to Read XML Data?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  (1) OPENXML in SQL Server 2000   For SQL Server 2005:  (2) query()  (3) value()  (4) nodes()  (5) exists()  (6) Modify() |
| [How we can Modify XMl Data in SQL Server 2005?](http://www.dotnetfunda.com/interview/exam858-how-we-can-modify-xml-data-in-sql-server-2005.aspx" \o "How we can Modify XMl Data in SQL Server 2005?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Using modify method we cam modify the data in XML.   set @value = 'val3'  set @xml.modify('replace value of (/root/item/@value)[1] with sql:variable("@value")')  select @xml |
| [How to Insert XML Data into Existing XML Node?](http://www.dotnetfunda.com/interview/exam859-how-to-insert-xml-data-into-existing-xml-node.aspx" \o "How to Insert XML Data into Existing XML Node?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  declare @xml xml  set @xml = '<root/>'  select @xml   declare @value varchar(10)  set @value = 'val1'  set @xml.modify('insert <item value="{sql:variable("@value")}" /> into (/root)[1]')  select @xml |

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| [How we can generate Random number in SQL Server?](http://www.dotnetfunda.com/interview/exam895-how-we-can-generate-random-number-in-sql-server.aspx" \o "How we can generate Random number in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How we can get the List of System Tables in DataBase?](http://www.dotnetfunda.com/interview/exam992-how-we-can-get-the-list-of-system-tables-in-database.aspx" \o "How we can get the List of System Tables in DataBase?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from Sys.Objects where Type='s' |
| [How we can get the list of user tables?](http://www.dotnetfunda.com/interview/exam993-how-we-can-get-the-list-of-user-tables.aspx" \o "How we can get the list of user tables?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from Sys.Objects where Type='u' |
| [How We can Get List of Store Procedures?](http://www.dotnetfunda.com/interview/exam994-how-we-can-get-list-of-store-procedures.aspx" \o "How We can Get List of Store Procedures?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from Sys.Objects where Type='p' |
| [How We Can Get List of Scalar Functions?](http://www.dotnetfunda.com/interview/exam995-how-we-can-get-list-of-scalar-functions.aspx" \o "How We Can Get List of Scalar Functions?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from Sys.Objects where Type='fn' |
| [Query to Get List of Table Valued Functions?](http://www.dotnetfunda.com/interview/exam996-query-to-get-list-of-table-valued-functions.aspx" \o "Query to Get List of Table Valued Functions?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from Sys.Objects where Type='tf' |
| [How we can Get List of Triggers?](http://www.dotnetfunda.com/interview/exam997-how-we-can-get-list-of-triggers.aspx" \o "How we can Get List of Triggers?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from Sys.Objects where Type='tr' |
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| [Query To Get The Column Name,DataType, And Length of columns in a Tables?](http://www.dotnetfunda.com/interview/exam998-query-to-get-the-column-namedatatype-and-length-of-columns-in-a-tables.aspx" \o "Query To Get The Column Name,DataType, And Length of columns in a Tables?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select column\_name, data\_type, character\_maximum\_length from information\_schema.columns  where table\_name ={Table Name} |
| [Query to Select n Rendom Records From a Table in the Database?](http://www.dotnetfunda.com/interview/exam999-query-to-select-n-rendom-records-from-a-table-in-the-database.aspx" \o "Query to Select n Rendom Records From a Table in the Database?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  SELECT TOP 3 \* FROM Tbl\_REGISTRATION ORDER By NEWID() |
| [Query to Get List of Views?](http://www.dotnetfunda.com/interview/exam1000-query-to-get-list-of-views.aspx" \o "Query to Get List of Views?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  select \* from information\_schema.views |
| [Query to display List of All Databases in SQL Server 2005/2008?](http://www.dotnetfunda.com/interview/exam1002-query-to-display-list-of-all-databases-in-sql-server-20052008.aspx" \o "Query to display List of All Databases in SQL Server 2005/2008?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  SELECT \* FROM Sys.Databases |
| [How to get values of identitycolumn when you are not sure about the column name which is identity column?](http://www.dotnetfunda.com/interview/exam1003-how-to-get-values-of-identitycolumn-when-you-are-not-sure-about-the-column.aspx" \o "How to get values of identitycolumn when you are not sure about the column name which is identity column?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  SELECT *IDENTITYCOL* FROM **TableName** |
| [What is the name of store procedure to send Email using SQL Server 2005/2008?](http://www.dotnetfunda.com/interview/exam1108-what-is-the-name-of-store-procedure-to-send-email-using-sql-server-2005200.aspx" \o "What is the name of store procedure to send Email using SQL Server 2005/2008?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  sp\_send\_dbmail in msdb database can be used to send email using SQL Server 2005/2008 |
| [I need to Add one column in a existing table and the max value of the column can be 10, which data type i need to use for that?](http://www.dotnetfunda.com/interview/exam1109-i-need-to-add-one-column-in-a-existing-table-and-the-max-value-of-the-colum.aspx" \o "I need to Add one column in a existing table and the max value of the column can be 10, which data type i need to use for that?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How we can add Description to the Column using Sql Command?](http://www.dotnetfunda.com/interview/exam1262-how-we-can-add-description-to-the-column-using-sql-command.aspx" \o "How we can add Description to the Column using Sql Command?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  We can Add Description to Column using sp\_addextendedproperty System Store Procedure.   Sample Command to Insert Description for Column in a Table:   EXEC sys.sp\_addextendedproperty @name=N'MS\_Description', @value=N'My Description for Column Here' , @level0type=N'SCHEMA',@level0name=N'dbo', @level1type=N'TABLE',@level1name=N'MyTableName', @level2type=N'COLUMN',@level2name=N'ColumnName' |

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| [How To Update Description Value for a Column in Table using SQL Command?](http://www.dotnetfunda.com/interview/exam1263-how-to-update-description-value-for-a-column-in-table-using-sql-command.aspx" \o "How To Update Description Value for a Column in Table using SQL Command?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  We can Update Description to Column using sp\_updateextendedproperty System Store Procedure.   Sample Command to Update Description for Column in a Table:   EXEC sys.sp\_updateextendedproperty @name=N'MS\_Description', @value=N'My Description for Column Here' , @level0type=N'SCHEMA',@level0name=N'dbo', @level1type=N'TABLE',@level1name=N'MyTableName', @level2type=N'COLUMN',@level2name=N'ColumnName'  Thanks & Regards  Lakhan Pal Garg |
| [How To Delete Description Value for a Column in Table using SQL Command?](http://www.dotnetfunda.com/interview/exam1264-how-to-delete-description-value-for-a-column-in-table-using-sql-command.aspx" \o "How To Delete Description Value for a Column in Table using SQL Command?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  We can Delete Description from Column using sp\_dropextendedproperty System Store Procedure.   Sample Command to Delete Description from Column in a Table:   EXEC sys.sp\_dropextendedproperty @name=N'MS\_Description', @value=N'My Description for Column Here' , @level0type=N'SCHEMA',@level0name=N'dbo', @level1type=N'TABLE',@level1name=N'MyTableName', @level2type=N'COLUMN',@level2name=N'ColumnName'  Thanks & Regards  Lakhan Pal Garg |
| [How To Get Description Value for all Column in Table using SQL Command?](http://www.dotnetfunda.com/interview/exam1265-how-to-get-description-value-for-all-column-in-table-using-sql-command.aspx" \o "How To Get Description Value for all Column in Table using SQL Command?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  To Get Description of Columns we need to use system function sys.fn\_listextendedproperty.   Command To Get Description Data for all Columns:   SELECT \* FROM fn\_listextendedproperty(NULL, 'SCHEMA',  'dbo', 'TABLE', 'YourTable Name Here', 'COLUMN', NULL)  Thanks & Regards  Lakhan Pal Garg |
| [How To Get Description Value for Single Column in Table using SQL Command?](http://www.dotnetfunda.com/interview/exam1266-how-to-get-description-value-for-single-column-in-table-using-sql-command.aspx" \o "How To Get Description Value for Single Column in Table using SQL Command?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  To Get Description of Single Column we need to use system function sys.fn\_listextendedproperty. we need to pass the column Name is this case.   Command To Get Description Data for Single Columns:   SELECT \* FROM fn\_listextendedproperty(NULL, 'SCHEMA',  'dbo', 'TABLE', 'Table Name Here', 'COLUMN', 'Column Name Here')  Thanks & Regards  Lakhan Pal Garg |
| [How we can Create a .SQL File for the Store Procedure in SQL Server 2005?](http://www.dotnetfunda.com/interview/exam1267-how-we-can-create-a-sql-file-for-the-store-procedure-in-sql-server-2005.aspx" \o "How we can Create a .SQL File for the Store Procedure in SQL Server 2005?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Using sqlcmd utility we can create a .sql file for the StoreProcedure.   Sample Code To Create file:  **Suppose the name of the procedure is: proc\_GetUserList\_sp  DB UserName/Password: sa/sa  Server name=MyServer  Database Name: UserDB**   Command From Above data is:   sqlcmd -U sa -P sa -S MyServer -d UserDB -Q "exec sp\_helptext proc\_GetUserList\_sp" -h-1 -k 1 >> c:\DB\proc\_GetUserList\_sp.sql  Thanks & Regards  Lakhan Pal Garg |
| [How We can get the DB name using SQL Command?](http://www.dotnetfunda.com/interview/exam1268-how-we-can-get-the-db-name-using-sql-command.aspx" \o "How We can get the DB name using SQL Command?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Following is the Command to get the DB name using Command analyzer   SELECT DB\_NAME()  Thanks & Regards  Lakhan Pal Garg |
| [What is the use of Set NOCOUNT ON;?](http://www.dotnetfunda.com/interview/exam1269-what-is-the-use-of-set-nocount-on.aspx" \o "What is the use of Set NOCOUNT ON;?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  By Default When we execute any command it return us the number of record affected. if we don't want to return the number of records affected then we can use Set NOCOUNT ON; |
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| [What is the system table that holds the Store Procedure Script?](http://www.dotnetfunda.com/interview/exam1270-what-is-the-system-table-that-holds-the-store-procedure-script.aspx" \o "What is the system table that holds the Store Procedure Script?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  **Sys.SQL\_Modules** table contains the script of the Store Procedure and **Sys.Procedures** contains the name of the store procedure.   Thanks & Regards  Lakhan Pal Garg |
| [How we can implement Row lock explicitly in SQL Server?](http://www.dotnetfunda.com/interview/exam1271-how-we-can-implement-row-lock-explicitly-in-sql-server.aspx" \o "How we can implement Row lock explicitly in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Using **"With (ROWLOCK)"** we can implement Row Lock Explicitly. with this we prevent the command to lock the whole page or table.   Thamks & Regards  Lakhan Pal Garg |
| [What is the name of the table from which we can get the Locking information in SQL Server?](http://www.dotnetfunda.com/interview/exam1272-what-is-the-name-of-the-table-from-which-we-can-get-the-locking-information.aspx" \o "What is the name of the table from which we can get the Locking information in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  **sys.dm\_tran\_locks** is the System table used to store the locking infomation. |
| [Can we use shared lock with Update Statement?](http://www.dotnetfunda.com/interview/exam1273-can-we-use-shared-lock-with-update-statement.aspx" \o "Can we use shared lock with Update Statement?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  No We can't use the shared lock to Update or modifty data. shared lock is used for select operation.  e.g of shared lock is : WITH (HOLDLOCK) |
| [What is the name of the System table from where we can read the Master Files (.mdf, .ldf) Path?](http://www.dotnetfunda.com/interview/exam1274-what-is-the-name-of-the-system-table-from-where-we-can-read-the-master-file.aspx" \o "What is the name of the System table from where we can read the Master Files (.mdf, .ldf) Path?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  From **sys.master\_files**table we can find the master file information for mdf file file\_id is 1 and for ldf its value is 2. |
| [Name of the table that contains the Configuration value of SQL Server ?](http://www.dotnetfunda.com/interview/exam1275-name-of-the-table-that-contains-the-configuration-value-of-sql-server.aspx" \o "Name of the table that contains the Configuration value of SQL Server ?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  sys.configurations |
| [What is the Name of table that contains available data type in SQL Server?](http://www.dotnetfunda.com/interview/exam1276-what-is-the-name-of-table-that-contains-available-data-type-in-sql-server.aspx" \o "What is the Name of table that contains available data type in SQL Server?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  **sys.systypes** contains the Data type available in SQL Server. |
| [What is the use of WAITFOR in SQL SERVER ?](http://www.dotnetfunda.com/interview/exam1277-what-is-the-use-of-waitfor-in-sql-server.aspx" \o "What is the use of WAITFOR in SQL SERVER ?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Suppose we want to execute one query now one one after some time then we need to use **WAITFOR TIME** for this.   **Sample Query:**   BEGIN  SELECT 'Lakhan Pal'  DECLARE @time char(5)  SET @time=CONVERT(char(5),DateAdd(mi, 1, GetDate()),108)  WAITFOR TIME @time  SELECT ' Garg'  END  In the above Code SELECT 'Lakhan Pal' will be execute first and then after 1 min second select statement SELECT ' Garg' will be executed. |

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| [What is the name of the Store procedure to get the listing of current users?](http://www.dotnetfunda.com/interview/exam1278-what-is-the-name-of-the-store-procedure-to-get-the-listing-of-current-users.aspx" \o "What is the name of the Store procedure to get the listing of current users?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  sp\_who |
| [Maximum number of parameters you can pass in a Store procedure in SQL Server 2005?](http://www.dotnetfunda.com/interview/exam1297-maximum-number-of-parameters-you-can-pass-in-a-store-procedure-in-sql-serve.aspx" \o "Maximum number of parameters you can pass in a Store procedure in SQL Server 2005?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  2100. |
| [Are DDL Triggers available with SQL Server 2005 ?](http://www.dotnetfunda.com/interview/exam1309-are-ddl-triggers-available-with-sql-server-2005.aspx" \o "Are DDL Triggers available with SQL Server 2005 ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  Yes. They can be defined with create, alter, drop and other DDL statements.  For an example :  CREATE TRIGGER DDL\_Trigger  ON DATABASE  FOR DROP\_TABLE, ALTER\_TABLE, CREATE\_TABLE  AS  PRINT 'Get permissions to drop/alter/create table!!'  ROLLBACK ; |
| [How to pass table name as stored procedure parameter in SQL Server 2005 (Write stored procedure) ?](http://www.dotnetfunda.com/interview/exam1310-how-to-pass-table-name-as-stored-procedure-parameter-in-sql-server-2005-wr.aspx" \o "How to pass table name as stored procedure parameter in SQL Server 2005 (Write stored procedure) ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  create PROCEDURE Pass\_TableName\_As\_Param --create procedure  @TableName varchar(50) -- Parameter of table name  AS  BEGIN  SET NOCOUNT ON;  SET @TableName= RTRIM(@TableName) --Trim the parameter of table name  DECLARE @cmd AS NVARCHAR(max)  SET @cmd = N'SELECT \* -- select query  FROM'+ @table\_name  END |
| [What is referential integrity in SQL Server ?](http://www.dotnetfunda.com/interview/exam1312-what-is-referential-integrity-in-sql-server.aspx" \o "What is referential integrity in SQL Server ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  To avoid logically corruption of data we need to maintain relationships with most of the databases. Building and maintaining logical relationships between tables is essential part to work with relational databases and when such relationships exist, we say that the data has referential integrity. With such database one table is referenced table and the other is the referencing table and values with both the tables (referencing table and referenced table) must match.  We can enforce such referential integrity through foreign key constraints.   *For an example,…*   CREATE TABLE Table\_Referenced  (  id INT  CONSTRAINT pk\_id PRIMARY KEY(id)--Create Primary Key here  );  GO    CREATE TABLE Table\_Referencing  (  RID Int  CONSTRAINT fk\_RID FOREIGN KEY(RID)REFERENCES Table\_Referenced(id)--Creates foreign key names 'RID' which is referring primary key of Table\_Referenced.id  );  GO |
| [What maximum size of row is allowed in SQL Server ?](http://www.dotnetfunda.com/interview/exam1334-what-maximum-size-of-row-is-allowed-in-sql-server.aspx" \o "What maximum size of row is allowed in SQL Server ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Write a SQL Statement to Get the Definition of the System Store Procedures?](http://www.dotnetfunda.com/interview/exam1359-write-a-sql-statement-to-get-the-definition-of-the-system-store-procedures.aspx" \o "Write a SQL Statement to Get the Definition of the System Store Procedures?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  **SELECT definition FROM sys.system\_sql\_modules**  Thanks & Regards  Lakhan Pal Garg |
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| [Write a Query in SQL Server to get the Parameter list of given Store Procedure.](http://www.dotnetfunda.com/interview/exam1360-write-a-query-in-sql-server-to-get-the-parameter-list-of-given-store-proce.aspx" \o "Write a Query in SQL Server to  get the Parameter list of given Store Procedure.) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Suppose we want to get the name of the parameter for the Store Procedure  **Course\_Insert\_sp** then folllowing needs to be executed.   SELECT \* FROM sys.parameters D INNER JOIN Sys.Objects O ON O.object\_id=D.object\_id WHERE O.name='Course\_Insert\_sp'  Thanks & Regards  Lakhan Pal Garg |
| [Which system procedure is used to find out lock details about the databases, it's table and procedures.](http://www.dotnetfunda.com/interview/exam1373-which-system-procedure-is-used-to-find-out-lock-details-about-the-databases.aspx" \o "Which system procedure is used to find out lock details about the databases, it's table and procedures.) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  **sp\_lock** |
| [Which system table holds the details of all the processes running on the Microsoft sql server?](http://www.dotnetfunda.com/interview/exam1374-which-system-table-holds-the-details-of-all-the-processes-running-on-the-mi.aspx" \o "Which system table holds the details of all the processes running on the Microsoft sql server?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  The name of the system table is **sysprocesses** .   Select \* from sysprocesses  Make sure you run this query in master database. |
| [How can we find the open transactions details in sql server?](http://www.dotnetfunda.com/interview/exam1375-how-can-we-find-the-open-transactions-details-in-sql-server.aspx" \o "How can we find the open transactions details in sql server?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  Yes, it is possible.   select \* from sysprocesses where open\_tran > 0  This query will provide list of all the open transaction details. |
| [What is the name of command in sql server 2005 which is used to kill any process?](http://www.dotnetfunda.com/interview/exam1376-what-is-the-name-of-command-in-sql-server-2005-which-is-used-to-kill-any-pr.aspx" \o "What is the name of command in sql server 2005 which is used to kill any process?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  The command name is **kill**.   Syntax is below:   Kill [Process ID] |
| [Name of the command to view the current amount of free (unallocated) space in the database in SQL Server?](http://www.dotnetfunda.com/interview/exam1377-name-of-the-command-to-view-the-current-amount-of-free-unallocated-space.aspx" \o "Name of the command to view the current amount of free (unallocated) space in the database in SQL Server?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  Name of command is :**sp\_spaceused**   This command displays the database\_size in MB, and it's also shows unallocated space for the database. |
| [What is the command name to shrink the data file and log file size in SQL server 2005?](http://www.dotnetfunda.com/interview/exam1378-what-is-the-command-name-to-shrink-the-data-file-and-log-file-size-in-sql-s.aspx" \o "What is the command name to shrink the data file and log file size in SQL server 2005?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  The command name is : **DBCC SHRINKDATABASE (Database Name)**   This command will shrink the data file and log file size. With this command you can specify that how much percentage space you want to free.   dbcc shrinkdatabase (TempDAabase,10)  This command will free only 10% space. |

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| [What is difference between RANK and DENSE\_RANK.](http://www.dotnetfunda.com/interview/exam1390-what-is-difference-between-rank-and-denserank.aspx" \o "What is difference between RANK and DENSE_RANK.) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  The main difference between RANK and DENSE\_RANK comes when they leave gap among records while ranking them.   For an example, if you have three records at position one. Both the functions will place all three records at same position of one but the difference comes is when they rank the next record. RANK() will rank the next record as fourth record while DENSE\_RANK() will rank it as second. |
| [What will you do if you need to create clustered index on more than one field? Is it possible?](http://www.dotnetfunda.com/interview/exam1392-what-will-you-do-if-you-need-to-create-clustered-index-on-more-than-one-fie.aspx" \o "What will you do if you need to create clustered index on more than one field? Is it possible?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  The answer is yes and no.  You can create only one clustered index in table.  Workaround for such scenario can be :  Either you can create index on entire table or you can create clustered index on a view covering entire table.   Suppose, you have created table with following:   CREATE TABLE [dbo].[Table1](  [field1] [int] IDENTITY(1,1) NOT NULL,  [field2] [nchar](10) ,  [field3] [nchar](10) ,  [field4] [nchar](10)  ) ON [PRIMARY]  **Create index on entire table:**  CREATE INDEX idx\_coverTable ON Table1(field1, field2) INCLUDE (field3, field4)  **Create clustered index on a view covering entire table:**   CREATE VIEW v1111 with SCHEMABINDING  AS  SELECT field1, field2, field3, field4 FROM dbo.Table1  GO  CREATE UNIQUE CLUSTERED INDEX idx\_viewClustered ON dbo.v1111(field1, field2, field3, field4)  GO  Thanks,  Bhakti Shah |
| [Can you control concatenation of string values with null values? How ?](http://www.dotnetfunda.com/interview/exam1393-can-you-control-concatenation-of-string-values-with-null-values-how.aspx" \o "Can you control concatenation of string values with null values? How ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  We can control this by setting CONCAT\_NULL\_YIELDS\_NULL on or off.  When it is set to ON, the concatenation will result null and when it is set to OFF, it will result the string.  **Setting it ON,**  SET CONCAT\_NULL\_YIELDS\_NULL on;  print 'testing' + NULL; --results NULL and prints nothing  **Setting it OFF,**  SET CONCAT\_NULL\_YIELDS\_NULL off;  print 'testing' + NULL; -- results testing and prints the same |
| [This is used to terminate a query when an overflow or divide-by-zero error occurs during query execution…](http://www.dotnetfunda.com/interview/exam1394-this-is-used-to-terminate-a-query-when-an-overflow-or-divide-by-zero-error.aspx" \o "This is used to terminate a query when an overflow or divide-by-zero error occurs during query execution…) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [SET NOCOUNT specified settings are in effect at…](http://www.dotnetfunda.com/interview/exam1395-set-nocount-specified-settings-are-in-effect-at.aspx" \o "SET NOCOUNT specified settings are in effect at…) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [SET OFFSETS specified settings are in effect at…](http://www.dotnetfunda.com/interview/exam1396-set-offsets-specified-settings-are-in-effect-at.aspx" \o "SET OFFSETS specified settings are in effect at…) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [To terminate SQL Server immediately, used is…](http://www.dotnetfunda.com/interview/exam1397-to-terminate-sql-server-immediately-used-is.aspx" \o "To terminate SQL Server immediately, used is…) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
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| [Return type of RAND() is...](http://www.dotnetfunda.com/interview/exam1398-return-type-of-rand-is.aspx" \o "Return type of RAND() is...) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Write and justify output of - select nullif('test','test')](http://www.dotnetfunda.com/interview/exam1399-write-and-justify-output-of-select-nulliftesttest.aspx" \o "Write and justify output of - select nullif('test','test')) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  The **output**will be – **NULL**  ***Justificatio* n :** nullif returns NULl if given two arguments are same else returns the first specified argument. So, for the given SQL, output will be NULL. |
| [How to get date of 234 days back in SQL?](http://www.dotnetfunda.com/interview/exam1400-how-to-get-date-of-234-days-back-in-sql.aspx" \o "How to get date of 234 days back in SQL?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  **SQL :** SELECT DATEADD(dd,-234,getdate()) |
| [What is SIGN() ?](http://www.dotnetfunda.com/interview/exam1401-what-is-sign.aspx" \o "What is SIGN() ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  SIGN() is used to determine whether the specified is positive, negative or zero. In case of positive, negative and zero it returns +1,-1 and 0 consecutively.   print sign(0) -- prints 0  print sign(10) -- prints 1  print sign(-10) -- prints -1  Sometimes before using SIGN(), you need to confirm you are passing numeric value as argument.  You can do this using, ISNUMERIC() |
| [SQL\_VARIEANT datatype column can be any datatype except?](http://www.dotnetfunda.com/interview/exam1469-sqlvarieant-datatype-column-can-be-any-datatype-except.aspx" \o "SQL_VARIEANT datatype column can be any datatype except?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which of the following is a Large object Binary Data Type?](http://www.dotnetfunda.com/interview/exam1470-which-of-the-following-is-a-large-object-binary-data-type.aspx" \o "Which of the following is a Large object Binary Data Type?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which of the following is a Large object data type?](http://www.dotnetfunda.com/interview/exam1471-which-of-the-following-is-a-large-object-data-type.aspx" \o "Which of the following is a Large object data type?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [INNER JOIN cannot be used without the](http://www.dotnetfunda.com/interview/exam1473-inner-join-cannot-be-used-without-the.aspx" \o "INNER JOIN cannot be used without the) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |

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| [select COUNT(column\_name) from table\_name counts only](http://www.dotnetfunda.com/interview/exam1474-select-countcolumnname-from-tablename-counts-only.aspx" \o "select COUNT(column_name) from table_name counts only) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which of the following is a Aggreate Function?](http://www.dotnetfunda.com/interview/exam1480-which-of-the-following-is-a-aggreate-function.aspx" \o "Which of the following is a Aggreate Function?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What will be the OutPut of the following Query? Select CELING(7.69) as number](http://www.dotnetfunda.com/interview/exam1481-what-will-be-the-output-of-the-following-query-select-celing769-as-num.aspx" \o "What will be the OutPut of the following Query? Select CELING(7.69) as number) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How you will create a UNIQUE Constraint when the table is already created?](http://www.dotnetfunda.com/interview/exam1501-how-you-will-create-a-unique-constraint-when-the-table-is-already-created.aspx" \o "How you will create a UNIQUE Constraint when the table is already created?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  **ALTER TABLE Persons  ADD UNIQUE (Column\_Name)** |
| [what is CHECK Constraint?](http://www.dotnetfunda.com/interview/exam1503-what-is-check-constraint.aspx" \o "what is CHECK Constraint?) Posted by: [Syedshakeer](http://www.dotnetfunda.com/profile/syedshakeer.aspx)  The CHECK constraint is used to limit the value range that can be placed in a column.  If you define a CHECK constraint on a single column it allows only certain values for this column.  If you define a CHECK constraint on a table it can limit the values in certain columns based on values in other columns in the row. |
| [Write query with which you can achieve paging from SQL side.](http://www.dotnetfunda.com/interview/exam1544-write-query-with-which-you-can-achieve-paging-from-sql-side.aspx" \o "Write query with which you can achieve paging from SQL side.) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  With below provided query you can get desired result. You need to pass parameter of startrowindex and maximum rows. Here in below example they are set to 0 and 200 respectively.   declare @StartRowIndex as int  set @StartRowIndex = 0  declare @MaximumRows as int  set @MaximumRows = 200  SELECT \* FROM  (  SELECT \*, ROW\_NUMBER() OVER (Order By Sort\_Column) AS RowRank -- Add your desired column name which you want ordered here in place of "Sort\_Column"  FROM  (  SELECT distinct Sort\_Column , column1 , column2 -- Desired list of the column names you want to retrieve  FROM [dbo].[table\_name] WITH(NOLOCK)  --\* Optional section if you have some joins then place them here \*--  --inner join vTanks on vTanks.ClientId = Facilities.ClientId  --and vTanks.FacilityId = Facilities.Facilityid  ) primarySelect  WHERE Id = 294 AND Archive <> 1 -- specify your conditions here  ) As joinTable  WHERE (RowRank > @StartRowIndex AND RowRank <= (@StartRowIndex + @MaximumRows))  ORDER BY table\_name |
| [How can you insert multiple rows together in a single insert statement for a table?](http://www.dotnetfunda.com/interview/exam1548-how-can-you-insert-multiple-rows-together-in-a-single-insert-statement-for.aspx" \o "How can you insert multiple rows together in a single insert statement for a table?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  It is not possible to insert multiple rows with a single insert statement. If you want to insert multiple rows, one have to write multiple insert statements considering that you are working SQL server 2005 or it's below version.   But SQL Server 2008 allows to insert multiple rows with a single insert statement.   As for example,   In sql server 2005, if we need to insert multiple row, we used to do something like this.   CREATE TABLE [State] (  [StateID] int,  [StateName] VARCHAR(20)  )  GO    INSERT INTO State  VALUES (1, 'Gujarat')    INSERT INTO State  VALUES (2, 'Dehli')    INSERT INTO State  VALUES (3, 'Bihar')    But with SQL Server 2008 we can combine all the three insert statement in single insert statement. See below:   CREATE TABLE [State] (  [StateID] int,  [StateName] VARCHAR(20)  )  GO    INSERT INTO State  VALUES (1, 'Gujarat'),  (2, 'Dehli'),  (3, 'Bihar')  Hope this helps... |
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| [Tell name of the system procedure to create and drop linked server in SQL SERVER?](http://www.dotnetfunda.com/interview/exam1549-tell-name-of-the-system-procedure-to-create-and-drop-linked-server-in-sql-s.aspx" \o "Tell name of the system procedure to create and drop linked server in SQL SERVER?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  To create linked server  **sp\_addlinkedserver**   To remove linked server  **sp\_dropserver** |
| [How will you delete all records of table other then recently added 10 records?](http://www.dotnetfunda.com/interview/exam1551-how-will-you-delete-all-records-of-table-other-then-recently-added-10-recor.aspx" \o "How will you delete all records of table other then recently added 10 records?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  There can be many ways to get the desired results. Two of the simplest ways are described below assuming your table is having column(date1) containing value of data creation.  **Way 1:** With the query below, we are deleting all the records except 10 records where id is not matching with the top most listed records based on time entry.   delete from table1  where id1 not in  (  select top 10 id1 from table1  order by date1 desc  )  **Way2:** With this query we are listing records in descending way with date as key and having index more then 10. All listed records will be deleted.   delete from table1  WHERE id1 in (  SELECT id1  FROM  (  SELECT id, ROW\_NUMBER() OVER(ORDER BY date1 DESC) AS rownumber  FROM table1  ) AS a  WHERE rownumber > 10  ) |
| [How can you declare and initialize variables in a single line with SQL Server ?](http://www.dotnetfunda.com/interview/exam1554-how-can-you-declare-and-initialize-variables-in-a-single-line-with-sql-serv.aspx" \o "How can you declare and initialize variables in a single line with SQL Server ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  With SQL Server 2005, we need to declare and initialize variables individually.   declare @t1 int,  @t2 varchar(10)  set @t1 = 4  set @t2 = 'Hello!'  print @t1  print @t2  But with SQL 2008, we can do it following way:   declare @t1 int = 4,  @t2 varchar(10)= 'Hello!'  print @t1  print @t2 |
| [Which are the five types of SQL table objects?](http://www.dotnetfunda.com/interview/exam1562-which-are-the-five-types-of-sql-table-objects.aspx" \o "Which are the five types of SQL table objects?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  1. Standard  2. Temporary  3. Table type  4. Derived  5. View |
| [What is XQuery?](http://www.dotnetfunda.com/interview/exam1563-what-is-xquery.aspx" \o "What is XQuery?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  XQuery is a language that is designed to query an XML document in SQL Server. |
| [What is sp\_XML\_Preparedocument procedure?](http://www.dotnetfunda.com/interview/exam1564-what-is-spxmlpreparedocument-procedure.aspx" \o "What is sp_XML_Preparedocument procedure?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  It is a system procedure which is used to read the XML document in the memory and returns a handle to this document. After that you can use OPEN\_XML method to iterate through the xml result set.   Before OPEN\_XML, one has to use sp\_XML\_Preparedocument. |
| [What is sp\_XML\_RemoveDocument procedure?](http://www.dotnetfunda.com/interview/exam1565-what-is-spxmlremovedocument-procedure.aspx" \o "What is sp_XML_RemoveDocument procedure?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  This procedure is used to remove the XML document from memory created using sp\_XML\_Preparedocument procedure. |
| [What is FOR XML clause in SQL?](http://www.dotnetfunda.com/interview/exam1566-what-is-for-xml-clause-in-sql.aspx" \o "What is FOR XML clause in SQL?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  FOR XML Clause is used with SQL Server’s Select statement to convert the relational data stored in your database to XML.   It has two options  1. Raw: To display XML element for each row.  2. Auto : It will automatically parse the structure used in query |

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| [In which table, SQL SERVER stores the user name and password used for connection?](http://www.dotnetfunda.com/interview/exam1588-in-which-table-sql-server-stores-the-user-name-and-password-used-for-conne.aspx" \o "In which table, SQL SERVER stores the user name and password used for connection?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  SQL Server stores it in Syslogins table of Master database. See below query:   select \* from syslogins |
| [Does Views occupy memory?](http://www.dotnetfunda.com/interview/exam1594-does-views-occupy-memory.aspx" \o "Does Views occupy memory?) Posted by: [Sundar](http://www.dotnetfunda.com/profile/sundar.aspx)  No. |
| [Clustered Index vs NonClustered Index.](http://www.dotnetfunda.com/interview/exam1603-clustered-index-vs-nonclustered-index.aspx" \o "Clustered Index vs NonClustered Index.) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  **Clustered Index :**  A Clustered index determines the physical order of data in a table and is particularly efficient on columns that are often searched for ranges of values.  The leaf nodes of a clustered index contain the data pages.  There can be only one clustered index per table.  "primary key" is the ideal column for a clustered index  Clustered indexes are good for range searches.   **Nonclustered Index :**  Nonclustered index is a special type of index in which the logical order of the index does not match the physical stored order of the rows on disk.  The leaf node of a nonclustered index does not consist of the data pages. Instead, the leaf nodes contain index rows.  There can be multiple non-clustered indexes per table.  "Unique Key" is the ideal column for a nonclustered index  Non-clustered indexes are good for random searches. |
| [What is Index?](http://www.dotnetfunda.com/interview/exam1648-what-is-index.aspx" \o "What is Index?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  A database index is a data structure which use to improve the speed of operations on a database table.   It's a physical structure containing pointers to the data.   Index can be created using one or more columns of a database table.  Index are created in an existing table to quickly and efficiently lookups.   It is possible to create an index on one or more columns of a table, and each index is given a name.   There are two type of index available.   Clustered index :  Clustered index are physical form of sorting. Therefore only one clustered index can be created on each table because the data rows themselves can only be sorted in one order.  Non Clustered index :  Non clustered indexes are logical form of sorting. Therefore more than one Non clustered indexes can be created on each table. |
| [Difference between DELETE and TRUNCATE commands ?](http://www.dotnetfunda.com/interview/exam1655-difference-between-delete-and-truncate-commands.aspx" \o "Difference between DELETE and TRUNCATE commands ?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  TRUNCATE TABLE is faster that DELETE TABLE and uses fewer system and transaction log resources.  Truncate will actually remove all the rows from a table and there will be no data in the table after we run the truncate command.  Delete command removes the rows from a table based on the condition that we provide with a WHERE clause. |
| [What is the difference between a HAVING CLAUSE and a WHERE CLAUSE ?](http://www.dotnetfunda.com/interview/exam1656-what-is-the-difference-between-a-having-clause-and-a-where-clause.aspx" \o "What is the difference between a HAVING CLAUSE and a WHERE CLAUSE ?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Both Clause are used to check the Condition at the time of Retrival of records in Database.  WHERE Clause is applied to each row before they are part of the GROUP BY function in a query.  Having Clause is basically used only with the GROUP BY function in a query. |
| [What is COMMIT and ROLLBACK statement in SQL](http://www.dotnetfunda.com/interview/exam1657-what-is-commit-and-rollback-statement-in-sql.aspx" \o "What is COMMIT and ROLLBACK statement in SQL) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Commit statement helps in termination of the current transaction and do all the changes that occur in transaction persistent and this also commits all the changes to the database.  ROLLBACK do the same thing just terminate the currenct transaction but one another thing is that the changes made to database are ROLLBACK to the database. |
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| [What are the different types of Locks](http://www.dotnetfunda.com/interview/exam1658-what-are-the-different-types-of-locks.aspx" \o "What are the different types of Locks) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Mainly There are three types of locks in SQL Server :   (1)Shared locks are used for operations that does not allow to change or update data, such as a SELECT statement.  (2)Update locks are used when SQL Server intends to modify a page, and later promotes the update page lock to an exclusive page lock before actually making the changes.  (3)Exclusive locks are used for the data modification operations, such as UPDATE, INSERT, or DELETE. |
| [What is the difference between UNION ALL Statement and UNION](http://www.dotnetfunda.com/interview/exam1659-what-is-the-difference-between-union-all-statement-and-union.aspx" \o "What is the difference between UNION ALL Statement and UNION) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  The main difference between UNION ALL statement and UNION is UNION All statement is much faster than UNION.  Reason : Because UNION ALL statement does not look for duplicate rows, but on the other hand UNION statement does look for duplicate rows, whether or not they exist. |
| [How to get number of Maximum connection can be establish to SQL](http://www.dotnetfunda.com/interview/exam1660-how-to-get-number-of-maximum-connection-can-be-establish-to-sql.aspx" \o "How to get number of Maximum connection can be establish to SQL) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  select @@MAX\_Connections |
| [What is a Join in SQL Server?](http://www.dotnetfunda.com/interview/exam1661-what-is-a-join-in-sql-server.aspx" \o "What is a Join in SQL Server?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Join puts data from two or more tables into a single result set. |
| [What is the Magic Tables in Sqlserver2000?](http://www.dotnetfunda.com/interview/exam1662-what-is-the-magic-tables-in-sqlserver2000.aspx" \o "What is the Magic Tables in Sqlserver2000?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  In Database for any table or view When a trigger is fired for any DML command.  Then 2 tables automatically create on backend.  One table is for Insert and other one is for Delete.  These tables are called Magic Tables.  Number of records in both tables should be same. |
| [What is the use of COALESCE function in SQL Server ?](http://www.dotnetfunda.com/interview/exam1664-what-is-the-use-of-coalesce-function-in-sql-server.aspx" \o "What is the use of COALESCE function in SQL Server ?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Returns the first not null expression among its arguments.  COALESCE(X,Y,Z)   If X is Null then It'll check for Y,  If Y is Null It'll Check for Z.   Let X is NULL, Y='5' and Z='9'  Here Output is : Y |
| [What type of Authentication does Microsoft SQL Server support?](http://www.dotnetfunda.com/interview/exam1666-what-type-of-authentication-does-microsoft-sql-server-support.aspx" \o "What type of Authentication does Microsoft SQL Server support?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  2 Type of Authentication :   1. Windows Authentication and  2. SQL Server authentication |
| [What is the difference between "dynamic SQL" and "stored procedure" ?](http://www.dotnetfunda.com/interview/exam1667-what-is-the-difference-between-dynamic-sql-and-stored-pro.aspx" \o "What is the difference between \"dynamic SQL\" and \"stored procedure\" ?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Dynamic sql is the bunch of statements that dynamically constructed at run time and not stored in database.  Where as Stored procedures are stored in data base in complied form. |

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| [How to determine the service pack currently installed on SQL Server?](http://www.dotnetfunda.com/interview/exam1688-how-to-determine-the-service-pack-currently-installed-on-sql-server.aspx" \o "How to determine the service pack currently installed on SQL Server?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  The global variable @@Version is used to determine the service pack installed.  Ex : SELECT @@Version  O/P : Microsoft SQL Server 2005 - 9.00.1399.06 (Intel X86) Oct 14 2005 00:33:37 Copyright (c) 1988-2005 Microsoft Corporation Developer Edition on Windows NT 5.2 (Build 3790: Service Pack 2) |
| [More than one IDENTITY column per table can be exist in SQL Server . (True /False)](http://www.dotnetfunda.com/interview/exam1689-more-than-one-identity-column-per-table-can-be-exist-in-sql-server-true.aspx" \o "More than one IDENTITY column per table can be exist in SQL Server . (True /False)) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  False.  There can only be one IDENTITY column per table in SQL Server.  Its auto Incremented Column defined by the user. |
| [Is “FOR” available with SQL ?](http://www.dotnetfunda.com/interview/exam1695-is-for-available-with-sql.aspx" \o "Is \“FOR\” available with SQL ?) Posted by: [Bhakti](http://www.dotnetfunda.com/profile/bhakti.aspx)  Yes, it is. You can use FOR clause with XML or BROWSE options. |
| [What is Wildcard character in SQL Server ?](http://www.dotnetfunda.com/interview/exam1728-what-is-wildcard-character-in-sql-server.aspx" \o "What is Wildcard character in SQL Server ?) Posted by: [Chikul](http://www.dotnetfunda.com/profile/chikul.aspx)  Wildcard characters Determines whether a given character string matches a specified pattern.  A pattern can include regular characters and wildcard characters.  During pattern matching, regular characters must match exactly the characters specified in the character string. Wildcard characters, however, can be matched with arbitrary fragments of the character string.  Using wildcard characters makes the LIKE operator more flexible than using the = and != string comparison operators.   There are 2 Wildcard characters i.e. '%' and '\_'  %  Any string of zero or more characters.  WHERE title LIKE '%computer%' finds all book titles with the word 'computer' anywhere in the book title.   \_ (underscore)  Any single character.  WHERE au\_fname LIKE '\_ean' finds all four-letter first names that end with ean, such as Dean or Sean. |
| [What are the major new features in SQL Server 2008 ?](http://www.dotnetfunda.com/interview/exam1731-what-are-the-major-new-features-in-sql-server-2008.aspx" \o "What are the major new features in SQL Server 2008 ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  Transparent Data Encryption. The ability to encrypt an entire database.   Backup Encryption. Executed at backup time to prevent tampering.   External Key Management. Storing Keys separate from the data.   Auditing. Monitoring of data access.   Data Compression. Fact Table size reduction and improved performance.   Resource Governor. Restrict users or groups from consuming high levels or resources.   Hot Plug CPU. Add CPUs on the fly.   Performance Studio. Collection of performance monitoring tools.   Installation improvements. Disk images and service pack uninstall options.   Dynamic Development. New ADO and Visual Studio options as well as Dot Net 3.   Entity Data Services. Line Of Business (LOB) framework and Entity Query Language (eSQL)   LINQ. Development query language for access multiple types of data such as SQL and XML.   Data Synchronizing. Development of frequently disconnected applications.   Large UDT. No size restriction on UDT.   Dates and Times. New data types: Date, Time, Date Time Offset.   File Stream. New data type VarBinary(Max) FileStream for managing binary data.   Table Value Parameters. The ability to pass an entire table to a stored procedure.   Spatial Data. Data type for storing Latitude, Longitude, and GPS entries.   Full Text Search. Native Indexes, thesaurus as metadata, and backup ability.   Reporting Server. Improved memory management.   SQL Server Integration Service. Improved multiprocessor support and faster lookups.   MERGE. TSQL command combining Insert, Update, and Delete.   SQL Server Analysis Server. Stack improvements, faster block computations.   SQL Server Reporting Server. Improved memory management and better rendering. |
| [I have a table with 10 columns. I need to display name column as textfield and Id column as value field in the drop down. Write the best possible query to get the records.](http://www.dotnetfunda.com/interview/exam1818-i-have-a-table-with-10-columns-i-need-to-display-name-column-as-textfield.aspx" \o "I have a table with 10 columns. I need to display name column as textfield and Id column as value field in the drop down.  Write the best possible query to get the records.) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  The best query is   Select ID,Name from Table1  Don't use   Select \* from Table1  As it creates an extra overhead and reduces performance. Always fetch only those column which are needed to get better performance. |
| [What is the use of COALESCE function in SQL Server ?](http://www.dotnetfunda.com/interview/exam1841-what-is-the-use-of-coalesce-function-in-sql-server.aspx" \o "What is the use of COALESCE function in SQL Server ?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  COALESCE Returns the first not null expression among its arguments. |
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| [How do you Change Stylesheet Dynamically using Javascript?](http://www.dotnetfunda.com/interview/exam1842-how-do-you-change-stylesheet-dynamically-using-javascript.aspx" \o "How do you Change Stylesheet Dynamically using Javascript?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  document.all["ScreenStyle"].setAttribute ("HREF", "GreenColorStyles.css", 0); |
| [I need to automate some works in SQL Server depending on the time. How can you do this](http://www.dotnetfunda.com/interview/exam1859-i-need-to-automate-some-works-in-sql-server-depending-on-the-time-how-can.aspx" \o "I need to automate some works in SQL Server depending on the time. How can you do this) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  We can do this through SQL Job |
| [Tell me some system defined procedures](http://www.dotnetfunda.com/interview/exam1860-tell-me-some-system-defined-procedures.aspx" \o "Tell me some system defined procedures) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  sp\_addsrvrolemember = Used to add a login as a member of fixed server role.sp\_helpdb = Used to see the details of database.sp\_bindrule = Binds the rule with database object.sp\_unbindrule = Unbinds the rule from database object.sp\_rename = Renames the table,index and views.sp\_help = Used to see the details of tables.sp\_helpindex = Used to display info about the indexes.sp\_fulltext\_database = Used to enable the database to use full text service.sp\_helptext = Used to display definition of user-defined rule.sp\_configure = Used to enable the CLR integration.sp\_lock = Used to display info about locks.sp\_dbremove = Used to rename a database. |
| [How do we list all Databases in a server using query?](http://www.dotnetfunda.com/interview/exam1861-how-do-we-list-all-databases-in-a-server-using-query.aspx" \o "How do we list all Databases in a server using query?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  select \* from sysdatabases |
| [How do we List all table names?](http://www.dotnetfunda.com/interview/exam1862-how-do-we-list-all-table-names.aspx" \o "How do we List all table names?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  By the query   select \* from sysobjects where xtype='U' order by name |
| [How do we list all column names of a table?](http://www.dotnetfunda.com/interview/exam1863-how-do-we-list-all-column-names-of-a-table.aspx" \o "How do we list all column names of a table?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Using the query   SELECT COLUMN\_NAME FROM INFORMATION\_SCHEMA.Columns where TABLE\_NAME = 'Emp' ORDER BY COLUMN\_NAME |
| [What are the steps to create a stored procedure?](http://www.dotnetfunda.com/interview/exam1864-what-are-the-steps-to-create-a-stored-procedure.aspx" \o "What are the steps to create a stored procedure?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  The stored procedure is created using keyword Create Proc or Create Procedure.The procedure should be paramerized along with data types.  The required logic should be inserted in begin and end block  In order to execute the stored procedure use exec |
| [What is ASCII method?](http://www.dotnetfunda.com/interview/exam1865-what-is-ascii-method.aspx" \o "What is ASCII method?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  ASCII will return the ascii value of the character expression |

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| [How do we convert money to character?](http://www.dotnetfunda.com/interview/exam1869-how-do-we-convert-money-to-character.aspx" \o "How do we convert money to character?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  convert(varchar,amount,1) |
| [How do we find the duplicate records of a table?](http://www.dotnetfunda.com/interview/exam1870-how-do-we-find-the-duplicate-records-of-a-table.aspx" \o "How do we find the duplicate records of a table?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Using the query   SELECT empname, COUNT(\*) AS n FROM employee GROUP BY empname HAVING COUNT(\*)>1 |
| [How do we find the last date of current month?](http://www.dotnetfunda.com/interview/exam1871-how-do-we-find-the-last-date-of-current-month.aspx" \o "How do we find the last date of current month?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  By the query   Select DateAdd(d,-day(GetDate()),GETDATE()-1) as LASTDATE |
| [What is a table variable in T-SQL?](http://www.dotnetfunda.com/interview/exam1873-what-is-a-table-variable-in-t-sql.aspx" \o "What is a table variable in T-SQL?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Table Variables are the special data type to store the values as in a table. This is stored inside of heap. |
| [Tell me the difference between temporary table and table variable? Which is better?](http://www.dotnetfunda.com/interview/exam1874-tell-me-the-difference-between-temporary-table-and-table-variable-which-i.aspx" \o "Tell me the difference between temporary table and table variable? Which is better?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Better one is table variable.   In most of our real time scenario we are using the temp table which is physically created in tempdb. This creates overhead, but when you create a table Variable it only resides in the memory which clearly shows that it will be much faster than Temp table.  A table variable goes out of scope immediately after the batch end. If we use Table Variable then we no need to explicitly drop it. |
| [Write a sample syntax of table variable?](http://www.dotnetfunda.com/interview/exam1875-write-a-sample-syntax-of-table-variable.aspx" \o "Write a sample syntax of table variable?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  DECLARE @TableVariableSample table (ID int IDENTITY(1,1),Name VARCHAR(150) NOT NULL) |
| [How to execute the stored procedure?](http://www.dotnetfunda.com/interview/exam1876-how-to-execute-the-stored-procedure.aspx" \o "How to execute the stored procedure?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  With exec keywork or directly we can execute a stored procedure |
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| [What is the use of Dense\_Rank in Sqlserver?](http://www.dotnetfunda.com/interview/exam1881-what-is-the-use-of-denserank-in-sqlserver.aspx" \o "What is the use of Dense_Rank in Sqlserver?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Dense\_Rank function produces the gaps in the ranking system |
| [How to rename a database in SQLserver?](http://www.dotnetfunda.com/interview/exam1882-how-to-rename-a-database-in-sqlserver.aspx" \o "How to rename a database in SQLserver?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  using the procedure sp\_renamedb. Following is the syntax   Exec sp\_renamedb ‘olddbname’,’newdbname’ |
| [How do we Unlock Particular User in Sql Server](http://www.dotnetfunda.com/interview/exam1883-how-do-we-unlock-particular-user-in-sql-server.aspx" \o "How do we Unlock Particular User in Sql Server) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  First Login with Window Authentication then take Master Database  Afterwards, execute the below query   alter login databaseusername01 with password='password' unlock |
| [What is the purpose of DATENAME fucntion?](http://www.dotnetfunda.com/interview/exam1884-what-is-the-purpose-of-datename-fucntion.aspx" \o "What is the purpose of DATENAME fucntion?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  DATENAME returns the part of the date in a literal form.   Following is the example   SELECT DATENAME(mm,GETDATE()) |
| [What is BCP?](http://www.dotnetfunda.com/interview/exam1885-what-is-bcp.aspx" \o "What is BCP?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  The Bulk Copy Program (BCP) is a command-line utility that ships with SQL Server. It is used to transform data from one database to another. |
| [What is DTS?](http://www.dotnetfunda.com/interview/exam1886-what-is-dts.aspx" \o "What is DTS?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Data Transformation Services (DTS) in SQL Server 2000 provides a set of graphical tools and programmable objects to export and import data. |
| [Which one is faster? BCP or DTS?](http://www.dotnetfunda.com/interview/exam1888-which-one-is-faster-bcp-or-dts.aspx" \o "Which one is faster? BCP or DTS?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  BCP is faster than DTS. |
| [Which has more provisions for the export/import functionality? Whether we can customize the data through BCP?](http://www.dotnetfunda.com/interview/exam1890-which-has-more-provisions-for-the-exportimport-functionality-whether-we-c.aspx" \o "Which has more provisions for the export/import functionality? Whether we can customize the data through BCP?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  DTS has more provisions than BCP.We can't customize in BCP. |

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| [How do we get Current Months First Day?](http://www.dotnetfunda.com/interview/exam1893-how-do-we-get-current-months-first-day.aspx" \o "How do we get Current Months First Day?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  SELECT CONVERT(VARCHAR(25),DATEADD(dd,-(DAY(getDate())-1),getDate()),101) |
| [What is compute in sql server?](http://www.dotnetfunda.com/interview/exam1897-what-is-compute-in-sql-server.aspx" \o "What is compute in sql server?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Compute generates totals that appear as additional summary columns at the end of the result set. |
| [What is a COMPUTE BY statement?](http://www.dotnetfunda.com/interview/exam1901-what-is-a-compute-by-statement.aspx" \o "What is a  COMPUTE BY statement?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  COMPUTE BY statement has both detail and summary rows within the SELECT statement. It calculates the summary values for subgroups, or a summary value for the entire result set. |
| [What is the use of @@CONNECTIONS statement?](http://www.dotnetfunda.com/interview/exam1902-what-is-the-use-of-connections-statement.aspx" \o "What is the use of @@CONNECTIONS statement?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  @@CONNECTIONS returns the number of attempted connections, either successful or unsuccessful since SQL Server was last started. |
| [What is the use of @@CPU\_BUSY statement?](http://www.dotnetfunda.com/interview/exam1904-what-is-the-use-of-cpubusy-statement.aspx" \o "What is the use of @@CPU_BUSY statement?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  @@CPU\_BUSY returns the time that SQL Server has spent working since it was last started. |
| [What is the use of @@LANGID?](http://www.dotnetfunda.com/interview/exam1906-what-is-the-use-of-langid.aspx" \o "What is the use of @@LANGID?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  It returns the local language identifier (ID) of the language that is currently being used. |
| [What is the use of @@VERSION statement?](http://www.dotnetfunda.com/interview/exam1907-what-is-the-use-of-version-statement.aspx" \o "What is the use of @@VERSION statement?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  @@VERSION statement returns version, processor architecture, build date, and operating system for the current installation of SQL Server. |
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| [What is the purpose of @@SERVERNAME statement in T-SQL?](http://www.dotnetfunda.com/interview/exam1908-what-is-the-purpose-of-servername-statement-in-t-sql.aspx" \o "What is the purpose of @@SERVERNAME statement in T-SQL?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  To know the name of the local server that is running SQL Server. |
| [What is the purpose of @@FETCH\_STATUS statement in T-SQL?](http://www.dotnetfunda.com/interview/exam1909-what-is-the-purpose-of-fetchstatus-statement-in-t-sql.aspx" \o "What is the purpose of @@FETCH_STATUS statement in T-SQL?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  To know the status of the last cursor FETCH statement issued against any cursor currently opened by the connection |
| [What is Modulo EQUALS statement in SQL server?](http://www.dotnetfunda.com/interview/exam1913-what-is-modulo-equals-statement-in-sql-server.aspx" \o "What is Modulo EQUALS statement in SQL server?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Modulo divides one number by another and return the result of the operation.  %= is the operator used for this. |
| [What is the use of @@ROWCOUNT?](http://www.dotnetfunda.com/interview/exam1915-what-is-the-use-of-rowcount.aspx" \o "What is the use of @@ROWCOUNT?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Returns the number of rows affected by the last statement. |
| [What is the maximum number rows can be returned in SqlServer by the @@ROWCOUNT?](http://www.dotnetfunda.com/interview/exam1917-what-is-the-maximum-number-rows-can-be-returned-in-sqlserver-by-the-rowco.aspx" \o "What is the maximum number rows can be returned in SqlServer by the @@ROWCOUNT?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  2 billion rows. |
| [If the rows are more than 2 billion, how can I set the rowcount?](http://www.dotnetfunda.com/interview/exam1919-if-the-rows-are-more-than-2-billion-how-can-i-set-the-rowcount.aspx" \o "If the rows are more than 2 billion, how can I set the rowcount?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Using ROWCOUNT\_BIG statement. |
| [How do we handle errors in SQL Server?](http://www.dotnetfunda.com/interview/exam1922-how-do-we-handle-errors-in-sql-server.aspx" \o "How do we handle errors in SQL Server?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Using @@ERROR statement. |
| [How do we raise the error message?](http://www.dotnetfunda.com/interview/exam1923-how-do-we-raise-the-error-message.aspx" \o "How do we raise the error message?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Using RAISERROR method. |

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| [Can we have Try catch in Sqlserver?](http://www.dotnetfunda.com/interview/exam1924-can-we-have-try-catch-in-sqlserver.aspx" \o "Can we have Try catch in Sqlserver?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Yes we can have Try catch statements in Sqlserver from SQLServer 2005 |
| [What is the syntax of try catch?](http://www.dotnetfunda.com/interview/exam1925-what-is-the-syntax-of-try-catch.aspx" \o "What is the syntax of try catch?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  BEGIN TRY  END TRY  BEGIN CATCH   END CATCH; |
| [How can we cancel a transaction?](http://www.dotnetfunda.com/interview/exam1926-how-can-we-cancel-a-transaction.aspx" \o "How can we cancel a transaction?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Using ROLLBACK TRANSACTION; |
| [What is the purpose of @@LANGUAGE statement?](http://www.dotnetfunda.com/interview/exam1928-what-is-the-purpose-of-language-statement.aspx" \o "What is the purpose of @@LANGUAGE statement?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  To know the current language used. |
| [What is the use of @@IDLE in Transact-SQL?](http://www.dotnetfunda.com/interview/exam1929-what-is-the-use-of-idle-in-transact-sql.aspx" \o "What is the use of @@IDLE  in Transact-SQL?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  @@IDLE informs the time that SQL Server has been idle since it was last started |
| [What is Replication and Database Mirroring?](http://www.dotnetfunda.com/interview/exam1991-what-is-replication-and-database-mirroring.aspx" \o "What is Replication and Database Mirroring?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  Database mirroring can be used with replication to provide availability for the publication database. Database mirroring involves two copies of a single database that typically reside on different computers. At any given time, only one copy of the database is currently available to clients which are known as the principal database. Updates made by clients to the principal database are applied on the other copy of the database, known as the mirror database. Mirroring involves applying the transaction log from every insertion, update, or deletion made on the principal database onto the mirror database. |
| [What is OLTP (Online Transaction Processing)?](http://www.dotnetfunda.com/interview/exam1992-what-is-oltp-online-transaction-processing.aspx" \o "What is OLTP (Online Transaction Processing)?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  In OLTP - online transaction processing systems relational database design use the discipline of data modeling and generally follow the Codd rules of data normalization in order to ensure absolute data integrity. Using these rules complex information is broken down into its most simple structures (a table) where all of the individual atomic level elements relate to each other and satisfy the normalization rules. |
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| [When is the use of UPDATE\_STATISTICS command?](http://www.dotnetfunda.com/interview/exam1993-when-is-the-use-of-updatestatistics-command.aspx" \o "When is the use of UPDATE_STATISTICS command?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  This command is basically used when a large processing of data has occurred. If a large amount of deletions any modification or Bulk Copy into the tables has occurred, it has to update the indexes to take these changes into account. UPDATE\_STATISTICS updates the indexes on these tables accordingly. |
| [What is SQL Profiler?](http://www.dotnetfunda.com/interview/exam1994-what-is-sql-profiler.aspx" \o "What is SQL Profiler?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  SQL Profiler is a graphical tool that allows system administrators to monitor events in an instance of Microsoft SQL Server. You can capture and save data about each event to a file or SQL Server table to analyze later. For example, you can monitor a production environment to see which stored procedures are hampering performances by executing too slowly.  Use SQL Profiler to monitor only the events in which you are interested. If traces are becoming too large, you can filter them based on the information you want, so that only a subset of the event data is collected. Monitoring too many events adds overhead to the server and the monitoring process and can cause the trace file or trace table to grow very large, especially when the monitoring process takes place over a long period of time. |
| [What is Log Shipping?](http://www.dotnetfunda.com/interview/exam1995-what-is-log-shipping.aspx" \o "What is Log Shipping?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  Log shipping is the process of automating the backup of database and transaction log files on a production SQL server, and then restoring them onto a standby server. Enterprise Editions only supports log shipping. In log shipping the transactional log file from one server is automatically updated into the backup database on the other server. If one server fails, the other server will have the same db and can be used this as the Disaster Recovery plan. The key feature of log shipping is that it will automatically backup transaction logs throughout the day and automatically restore them on the standby server at defined interval. |
| [How to get @@ERROR and @@ROWCOUNT at the same time?](http://www.dotnetfunda.com/interview/exam1996-how-to-get-error-and-rowcount-at-the-same-time.aspx" \o "How to get @@ERROR and @@ROWCOUNT at the same time?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  If @@Rowcount is checked after Error checking statement then it will have 0 as the value of @@Recordcount as it would have been reset. And if @@Recordcount is checked before the error-checking statement then @@Error would get reset. To get @@error and @@rowcount at the same time do both in same statement and store them in local variable. SELECT @RC = @@ROWCOUNT, @ER = @@ERROR |
| [Can SQL Servers linked to other servers like Oracle?](http://www.dotnetfunda.com/interview/exam1997-can-sql-servers-linked-to-other-servers-like-oracle.aspx" \o "Can SQL Servers linked to other servers like Oracle?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  SQL Server can be linked to any server provided it has OLE-DB provider from Microsoft to allow a link. E.g. Oracle has an OLE-DB provider for oracle that Microsoft provides to add it as linked server to SQL Server group |
| [What is BCP? When does it used?](http://www.dotnetfunda.com/interview/exam1998-what-is-bcp-when-does-it-used.aspx" \o "What is BCP? When does it used?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  BulkCopy is a tool used to copy huge amount of data from tables and views. BCP does not copy the structures same as source to destination. BULK INSERT command helps to import a data file into a database table or view in a user-specified format. |
| [What are sp\_configure commands and set commands?](http://www.dotnetfunda.com/interview/exam1999-what-are-spconfigure-commands-and-set-commands.aspx" \o "What are sp_configure commands and set commands?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  Use sp\_configure to display or change server-level settings. To change database-level settings, use ALTER DATABASE. To change settings that affect only the current user session, use the SET statement. |
| [How to implement one-to-one, one-to-many and many-to-many relationships while designing tables?](http://www.dotnetfunda.com/interview/exam2000-how-to-implement-one-to-one-one-to-many-and-many-to-many-relationships-whi.aspx" \o "How to implement one-to-one, one-to-many and many-to-many relationships while designing tables?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  One-to-One relationship can be implemented as a single table and rarely as two tables with primary and foreign key relationships. One-to-Many relationships are implemented by splitting the data into two tables with primary key and foreign key relationships.  Many-to-Many relationships are implemented using a junction table with the keys from both the tables forming the composite primary key of the junction table. |

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| [What is an execution plan? When would you use it? How would you view the execution plan?](http://www.dotnetfunda.com/interview/exam2001-what-is-an-execution-plan-when-would-you-use-it-how-would-you-view-the-ex.aspx" \o "What is an execution plan? When would you use it? How would you view the execution plan?) Posted by: [Blessybaby](http://www.dotnetfunda.com/profile/blessybaby.aspx)  An execution plan is basically a road map that graphically or textually shows the data retrieval methods chosen by the SQL Server query optimizer for a stored procedure or ad-hoc query and is a very useful tool for a developer to understand the performance characteristics of a query or stored procedure since the plan is the one that SQL Server will place in its cache and use to execute the stored procedure or query. From within Query Analyzer is an option called "Show Execution Plan" (located on the Query drop-down menu). If this option is turned on it will display query execution plan in separate window when query is ran again. |
| [What is ACID ??](http://www.dotnetfunda.com/interview/exam2004-what-is-acid.aspx" \o "What is ACID ??) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  A transaction in SQL or in any DB must be ACID i.e.   atomicity, consistency, isolation, durability   Check on Google for details |
| [How can u pick random records from SQL table ?](http://www.dotnetfunda.com/interview/exam2011-how-can-u-pick-random-records-from-sql-table.aspx" \o "How can u pick random records from SQL table ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  SELECT colName FROM tblSource  ORDER BY NEWID() |
| [Efficiency comparison of EXISTS and IN](http://www.dotnetfunda.com/interview/exam2012-efficiency-comparison-of-exists-and-in.aspx" \o "Efficiency comparison of EXISTS and IN) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  EXISTS is efficient as if any row returned, Search stops.  IN is looking for a specific match which takes longer.   However they may not always replace each other but wherever they can, above is their efficiency comparison !! |
| [Can you compare two SQL fields with datatype "text" by using equal "=" operator](http://www.dotnetfunda.com/interview/exam2034-can-you-compare-two-sql-fields-with-datatype-text-by-using-equa.aspx" \o "Can you compare two SQL fields with datatype \"text\" by using equal \"=\" operator) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are the three levels of data abstraction?](http://www.dotnetfunda.com/interview/exam2043-what-are-the-three-levels-of-data-abstraction.aspx" \o "What are the three levels of data abstraction?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  The are three levels of abstraction are as follows:   **Physical level:** The lowest level of abstraction describes how data are stored.   **Logical level:** The next higher level of abstraction, describes what data are stored in database and what relationship among those data.   **View level:** The highest level of abstraction describes only part of entire database. |
| [What is the output of the following query? SELECT TRUNC(1234.5678,­2) FROM DUAL;](http://www.dotnetfunda.com/interview/exam2045-what-is-the-output-of-the-following-query-select-trunc123456781732.aspx" \o "What is the output of the following query? SELECT TRUNC(1234.5678,­2) FROM DUAL;) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  1200 |
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| [What is the error in the following command? DROP TABLE &TABLE\_NAME;](http://www.dotnetfunda.com/interview/exam2055-what-is-the-error-in-the-following-command-drop-table-tablename.aspx" \o "What is the error in the following command? DROP TABLE &TABLE_NAME;) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  Variable names should start with an alphabet. Here the table name starts with an '&' symbol. So it will give a compilation error. |
| [What is the use of DATEDIFF function in SQL?](http://www.dotnetfunda.com/interview/exam2075-what-is-the-use-of-datediff-function-in-sql.aspx" \o "What is the use of DATEDIFF function in SQL?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  It will extract the difference between two given dates as per the parameter passed.   datediff(parameter,date1,date2) |
| [What is the use of DATEPART function in SQL?](http://www.dotnetfunda.com/interview/exam2076-what-is-the-use-of-datepart-function-in-sql.aspx" \o "What is the use of DATEPART function in SQL?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  datepart(parameter,date) will extract the date part according to the parameter passed. The parameters can be yy for year, mm for month or dd for date. |
| [Which function is used to find the largest integer less than or equal to a specific value?](http://www.dotnetfunda.com/interview/exam2088-which-function-is-used-to-find-the-largest-integer-less-than-or-equal-to-a.aspx" \o "Which function is used to find the largest integer less than or equal to a specific value?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  FLOOR   Floor is used to round a number down to the last whole number. Any number with even the highest decimal is rounded down.   Examples:   SELECT FLOOR(-5.12);  This will be round down to -6   SELECT FLOOR(5.14);  This will be round down to 5 |
| [What is the use of DESC in SQL?](http://www.dotnetfunda.com/interview/exam2089-what-is-the-use-of-desc-in-sql.aspx" \o "What is the use of DESC in SQL?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  DESC is used to describe a schema as well as to retrieve rows from table in descending order.   The query SELECT \* FROM Student ORDER BY SNAME DESC will display the output sorted on SNAME in descending order. |
| [Which option is used to drop constraints specified on the table?](http://www.dotnetfunda.com/interview/exam2090-which-option-is-used-to-drop-constraints-specified-on-the-table.aspx" \o "Which option is used to drop constraints specified on the table?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  DROP option in the ALTER TABLE command is used to drop constraints specified on the table. |
| [MONTHS\_BETWEEN date function is used for what purpose?](http://www.dotnetfunda.com/interview/exam2091-monthsbetween-date-function-is-used-for-what-purpose.aspx" \o "MONTHS_BETWEEN date function is used for what purpose?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  MONTHS\_BETWEEN is used to find the difference between two dates. |
| [Which command is used to create a table by copying the structure of another table?](http://www.dotnetfunda.com/interview/exam2092-which-command-is-used-to-create-a-table-by-copying-the-structure-of-another.aspx" \o "Which command is used to create a table by copying the structure of another table?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  CREATE TABLE .. AS SELECT command  Example:-   CREATE TABLE AS SELECT\*FROM WHERE 1=2; |

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| [What is the difference between TRUNCATE and DELETE commands?](http://www.dotnetfunda.com/interview/exam2093-what-is-the-difference-between-truncate-and-delete-commands.aspx" \o "What is the difference between TRUNCATE and DELETE commands?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  1.TRUNCATE is a DDL command whereas DELETE is a DML command.  2.DELETE operation can be rolled back, but TRUNCATE operation cannot be rolled back.  3.WHERE can be used with DELETE and not with TRUNCATE. |
| [What are the privileges that can be granted on a table by a user to others?](http://www.dotnetfunda.com/interview/exam2094-what-are-the-privileges-that-can-be-granted-on-a-table-by-a-user-to-others.aspx" \o "What are the privileges that can be granted on a table by a user to others?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  Insert, update, delete, select, references, index, execute, alter, all |
| [!=, <>, ^= all denote the same operation. It is True of False](http://www.dotnetfunda.com/interview/exam2095-all-denote-the-same-operation-it-is-true-of-false.aspx" \o "!=, <>, ^= all denote the same operation. It is True of False) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  True |
| [What are the wildcards used for pattern matching?](http://www.dotnetfunda.com/interview/exam2096-what-are-the-wildcards-used-for-pattern-matching.aspx" \o "What are the wildcards used for pattern matching?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  \_ is used for single character substitution  % is used for multi­character substitution |
| [Which command displays the SQL command in the SQL buffer, and then executes it?](http://www.dotnetfunda.com/interview/exam2097-which-command-displays-the-sql-command-in-the-sql-buffer-and-then-executes.aspx" \o "Which command displays the SQL command in the SQL buffer, and then executes it?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  RUN   It lists the commands in the SQL buffer before running and then execute (or re-execute) commands. |
| [Which system table contains information on constraints on all the tables created?](http://www.dotnetfunda.com/interview/exam2098-which-system-table-contains-information-on-constraints-on-all-the-tables-cr.aspx" \o "Which system table contains information on constraints on all the tables created?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  USER\_CONSTRAINTS |
| [Which command executes the contents of a specified file?](http://www.dotnetfunda.com/interview/exam2100-which-command-executes-the-contents-of-a-specified-file.aspx" \o "Which command executes the contents of a specified file?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  START or @   @ pathname  It will run a SQL Script.   Example:-   @Script1.sql parameter1 parameter2 parameter3  In the Script we can refer to the parameters as &1, &2, and &3.   Similarly @@ pathname will able to run a nested SQL Script. |
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| [Which operator performs pattern matching?](http://www.dotnetfunda.com/interview/exam2101-which-operator-performs-pattern-matching.aspx" \o "Which operator performs pattern matching?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  LIKE   SELECT \* FROM student WHERE name LIKE '%Abhisek%'  The above command will retrieve records with name Abhisek in the name column.   We can use different wildcard characters to specify the condition. |
| [Is SQL case sensitive?](http://www.dotnetfunda.com/interview/exam2109-is-sql-case-sensitive.aspx" \o "Is SQL case sensitive?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  No. |
| [What command is used to get back the privileges offered by the GRANT command?](http://www.dotnetfunda.com/interview/exam2127-what-command-is-used-to-get-back-the-privileges-offered-by-the-grant-comman.aspx" \o "What command is used to get back the privileges offered by the GRANT command?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  REVOKE |
| [What is the default language of SSIS Script Task?](http://www.dotnetfunda.com/interview/exam2153-what-is-the-default-language-of-ssis-script-task.aspx" \o "What is the default language of SSIS Script Task?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  VB.NET |
| [How many maximum Clustered indexes on a table ??](http://www.dotnetfunda.com/interview/exam2163-how-many-maximum-clustered-indexes-on-a-table.aspx" \o "How many maximum Clustered indexes on a table ??) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Is primary key Clustered or Non - Clustered Index in MS SQL](http://www.dotnetfunda.com/interview/exam2164-is-primary-key-clustered-or-non-clustered-index-in-ms-sql.aspx" \o "Is primary key Clustered or Non - Clustered Index in MS SQL) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  Clustered |
| [What is fixed-length & variable-length characters? Tell me their differences??](http://www.dotnetfunda.com/interview/exam2184-what-is-fixed-length-variable-length-characters-tell-me-their-diffe.aspx" \o "What is fixed-length & variable-length characters?  Tell me their differences??) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  In Sql Server there are two types of character data types. They are   1.fixed-length (i.e char)  2.variable-length (i.e varchar)   The main differences are maximum length and in whether trailing spaces are retained |
| [What is Powershell ?](http://www.dotnetfunda.com/interview/exam2185-what-is-powershell.aspx" \o "What is Powershell ?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  PowerShell is the .NET based automation engine in Microsoft p/f , it can be embedded into .NET applications but is usually used as a command line shell and scripting language. |

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| [What is SqlBulkCopy in ADO.NET?](http://www.dotnetfunda.com/interview/exam2186-what-is-sqlbulkcopy-in-adonet.aspx" \o "What is SqlBulkCopy in ADO.NET?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  SqlBulkCopy is the object that helps you to perform a bulk copy.  You can use a DataReader or DataTable as source data  store. |
| [How do you map a column in SqlBulkCopy?](http://www.dotnetfunda.com/interview/exam2187-how-do-you-map-a-column-in-sqlbulkcopy.aspx" \o "How do you map a column in SqlBulkCopy?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  By the object of SqlBulkCopyColumnMapping class.  Following is a sample   SqlBulkCopyColumnMapping mapColumn1 = new SqlBulkCopyColumnMapping("EmpID", "ID"); |
| [What is a cube?](http://www.dotnetfunda.com/interview/exam2188-what-is-a-cube.aspx" \o "What is a cube?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  A cube is a collection of measures and dimensions for analyzing the data in detail.   Here measure is the fact and it has the aggregate data and dimension is a group of attributes. |
| [What is the full form of KPI?](http://www.dotnetfunda.com/interview/exam2189-what-is-the-full-form-of-kpi.aspx" \o "What is the full form of KPI?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Key Performance Indicators |
| [In Analysis service what is the technology used define the expressions?](http://www.dotnetfunda.com/interview/exam2190-in-analysis-service-what-is-the-technology-used-define-the-expressions.aspx" \o "In Analysis service what is the technology used define the expressions?) Posted by: [Nishithraj](http://www.dotnetfunda.com/profile/nishithraj.aspx)  Multidimensional Expressions also abbrevated as MDX |
| [How To know your SQL Server Version in SQL command prompt ?](http://www.dotnetfunda.com/interview/exam2191-how-to-know-your-sql-server-version-in-sql-command-prompt.aspx" \o "How To know your SQL Server Version in SQL command prompt ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  SELECT @@VERSION |
| [What is the use of xml datatype in SQL Server?](http://www.dotnetfunda.com/interview/exam2193-what-is-the-use-of-xml-datatype-in-sql-server.aspx" \o "What is the use of xml datatype in SQL Server?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  As the name indicates xnl datatype is used to store XML documents in SQL Server.   For more information please go to the following URL,  <http://msdn.microsoft.com/en-us/library/ms187339.aspx> |
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| [What is the maximum size of data we can store in the image type of SQL?](http://www.dotnetfunda.com/interview/exam2196-what-is-the-maximum-size-of-data-we-can-store-in-the-image-type-of-sql.aspx" \o "What is the maximum size of data we can store in the image type of SQL?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  We can store binary data from 0 to 2^31-1 or 2,147,483,647 bytes in an image field of SQL Server. The image datatype is used to store images and files in a database. |
| [What is the difference between .rdl and .rdlc report.](http://www.dotnetfunda.com/interview/exam2201-what-is-the-difference-between-rdl-and-rdlc-report.aspx" \o "What is the difference between .rdl and .rdlc report.) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  .rdl report is created using SQL Server Reporting service, But the .rdlc report is created with the help visual studio's inbuilt reporting services. in rdlc 'c' stands for client side. |
| [Can we create DTS Package in DTS package in SQL Server 2005 or higher version?](http://www.dotnetfunda.com/interview/exam2202-can-we-create-dts-package-in-dts-package-in-sql-server-2005-or-higher-versi.aspx" \o "Can we create DTS Package in DTS package in SQL Server 2005 or higher version?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is SSIS](http://www.dotnetfunda.com/interview/exam2203-what-is-ssis.aspx" \o "What is SSIS) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  SSIS is know as SQL Server Integration service. SSIS Package are replacement of DTS Package in SQL Server 2005 or higher version. |
| [Can we write Scripting Language like VB Script and JavaScript in SSIS Package?](http://www.dotnetfunda.com/interview/exam2209-can-we-write-scripting-language-like-vb-script-and-javascript-in-ssis-packa.aspx" \o "Can we write Scripting Language like VB Script and JavaScript in SSIS Package?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Yes, We can Write VB Script and JavaScript in SSIS Packages using ActiveX Task Control. |
| [Name of the containers in SSIS?](http://www.dotnetfunda.com/interview/exam2210-name-of-the-containers-in-ssis.aspx" \o "Name of the containers in SSIS?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  (1) Task Host Containers  (2) Sequence Containers  (3) ForEach Loop Containers  (4) For Loop Containers |
| [Can we use Oracle Database as source or destination Database in SSIS?](http://www.dotnetfunda.com/interview/exam2218-can-we-use-oracle-database-as-source-or-destination-database-in-ssis.aspx" \o "Can we use Oracle Database  as source or destination Database in SSIS?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Yes, We can Use Oracle Database and can create OLE-DB Connection to connect. |
| [Adding months to a Date in SQL ??](http://www.dotnetfunda.com/interview/exam2243-adding-months-to-a-date-in-sql.aspx" \o "Adding months to a Date in SQL ??) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  Example below illustrates :   Select DATEADD(mm,1,getdate()) |

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| [Adding minutes to a date ??](http://www.dotnetfunda.com/interview/exam2244-adding-minutes-to-a-date.aspx" \o "Adding minutes to a date ??) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  Example below illustrates :   Select DATEADD(minute,1,getdate()) |
| [Adding year to a date ??](http://www.dotnetfunda.com/interview/exam2245-adding-year-to-a-date.aspx" \o "Adding year to a date ??) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  Example below illustrates :   Select DATEADD(year,1,getdate()) |
| [How to get the month value/month part from the given Date?](http://www.dotnetfunda.com/interview/exam2246-how-to-get-the-month-valuemonth-part-from-the-given-date.aspx" \o "How to get the month value/month part from the given Date?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  There are three methods to get the Month part from given date:  DECLARE @GivenDate datetime  SET @GivenDate='2010-02-22 23:06:38.300'  (1) MONTH(GETDATE()) OutPut: 2  (2) SUBSTRING(CONVERT(varchar(30),GETDATE(),107),1,3) Output: Feb  (3) DatePart(M,GETDATE()) output: 2 |
| [How to get the Day part from the given Date?](http://www.dotnetfunda.com/interview/exam2247-how-to-get-the-day-part-from-the-given-date.aspx" \o "How to get the Day part from the given Date?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  There are two methods to get the Date part from given date:  DECLARE @GivenDate datetime  SET @GivenDate='2010-02-22 23:06:38.300'   (1) DAY(GETDATE()) Output: 22  (2) DatePart(d,GETDATE()) Output: 22 |
| [How to get the year part from the given Date?](http://www.dotnetfunda.com/interview/exam2248-how-to-get-the-year-part-from-the-given-date.aspx" \o "How to get the year part from the given Date?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  There are two methods to get the Year part from given date:  DECLARE @GivenDate datetime  SET @GivenDate='2010-02-22 23:06:38.300'   (1) Year(GETDATE()) Output: 2010  (2) DatePart(yy,GETDATE()) Output: 2010 |
| [How to get the number of quarter from given date?](http://www.dotnetfunda.com/interview/exam2249-how-to-get-the-number-of-quarter-from-given-date.aspx" \o "How to get the number of quarter from given date?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  There is one method to get the Quarter number from given date:  DECLARE @GivenDate datetime  SET @GivenDate='2010-02-22 23:06:38.300'   SELECT DatePart(Q,GETDATE())  Output: 1 |
| [Which function is used to convert the integer value into spaces?](http://www.dotnetfunda.com/interview/exam2258-which-function-is-used-to-convert-the-integer-value-into-spaces.aspx" \o "Which function is used to convert the integer value into spaces?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  The SPACE function convert the specified integer value into spaces.   SELECT SPACE(4)  It will output a string of four spaces " ". |
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| [Which function performs the opposite function of CEILING function in SQL Server?](http://www.dotnetfunda.com/interview/exam2264-which-function-performs-the-opposite-function-of-ceiling-function-in-sql-se.aspx" \o "Which function performs the opposite function of CEILING function in SQL Server?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Why FLOOR function is used?](http://www.dotnetfunda.com/interview/exam2265-why-floor-function-is-used.aspx" \o "Why FLOOR function is used?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  FLOOR function is used to roundup a non integer number to the next least integer.  Syntax:-   FLOOR(expression)  Example:-   SELECT FLOOR(355.34) FROM dual;  It will output 355. If we will pass a positive no. it will return only the integer part.   SELECT FLOOR(-355.34) FROM dual;  It will output -356. When we pass a negative value then it returns an integer less than the value passed. |
| [Which function is used to know the database name by giving the database ID?](http://www.dotnetfunda.com/interview/exam2266-which-function-is-used-to-know-the-database-name-by-giving-the-database-id.aspx" \o "Which function is used to know the database name by giving the database ID?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  The DB\_NAME function is used to know the database name. It takes the database id as the argument.   DB\_NAME(dbID)  Example:- SELECT DB\_NAME(5) -->Student |
| [How to know the ID of a database?](http://www.dotnetfunda.com/interview/exam2267-how-to-know-the-id-of-a-database.aspx" \o "How to know the ID of a database?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  To know the ID of a database DB\_ID function is used. It takes the database name as an argument.   DB\_ID(dbName)  Example:- SELECT DB\_ID(Student) -->5 |
| [Which function is used to perform a full text search on a column?](http://www.dotnetfunda.com/interview/exam2268-which-function-is-used-to-perform-a-full-text-search-on-a-column.aspx" \o "Which function is used to perform a full text search on a column?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  FREETEXT function can perform a full text search on the specified column.   FREETEXT({column/\*}, search-string)  It will return the rows with columns that match the search-string. It matches the meaning only not the exact value of the search-string. |
| [Which function is used to know the current active user within the host Operating System?](http://www.dotnetfunda.com/interview/exam2269-which-function-is-used-to-know-the-current-active-user-within-the-host-oper.aspx" \o "Which function is used to know the current active user within the host Operating System?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  SYSTEM\_USER function is used to know the current active user within the host Operating System.   SELECT SYSTEM\_USER  -->Abhisek |
| [What is the use of MOD function?](http://www.dotnetfunda.com/interview/exam2270-what-is-the-use-of-mod-function.aspx" \o "What is the use of MOD function?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  MOD function is used to get the remainder of a division. It takes the dividend and divider as its arguments.   MOD(dividend,divider)  Example:-   SELECT MOD(12,5)  it will output 2.   It will return the dividend if the divider will 0. |
| [Name the full-text predicates in SQL server](http://www.dotnetfunda.com/interview/exam2283-name-the-full-text-predicates-in-sql-server.aspx" \o "Name the full-text predicates in SQL server) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  CONTAINS & FREETEXT |

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| [Name the ROW-Valued-Functions in Full Text Search](http://www.dotnetfunda.com/interview/exam2284-name-the-row-valued-functions-in-full-text-search.aspx" \o "Name the ROW-Valued-Functions in Full Text Search) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  CONTAINSTABLE and FREETEXTTABLE |
| [What are the various transaction isolation levels ?](http://www.dotnetfunda.com/interview/exam2286-what-are-the-various-transaction-isolation-levels.aspx" \o "What are the various transaction isolation levels ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  read uncommitted  read committed  serializable and  repeat table read |
| [What are the variuos lock types ?](http://www.dotnetfunda.com/interview/exam2287-what-are-the-variuos-lock-types.aspx" \o "What are the variuos lock types ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  SHARED  UPDATE  EXCLUSIVE |
| [How can we check the locks defined in a DB ?](http://www.dotnetfunda.com/interview/exam2288-how-can-we-check-the-locks-defined-in-a-db.aspx" \o "How can we check the locks defined in a DB ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  using inbuilt stored proceduce  **sp\_lock** |
| [Which function is used to know the database property in SQL Server.](http://www.dotnetfunda.com/interview/exam2289-which-function-is-used-to-know-the-database-property-in-sql-server.aspx" \o "Which function is used to know the database property in SQL Server.) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  DATABASEPROPERTYEX(dtabase,property)  It will return the specified property of the specified database.  Example:-   SELECT DATABASEPROPERTYEX(Student,Version)  -->365   You can use this function to know other properties of your database. |
| [What is the use of CHAR function?](http://www.dotnetfunda.com/interview/exam2290-what-is-the-use-of-char-function.aspx" \o "What is the use of CHAR function?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  CHAR function is used to convert the numeric ASCII code to a character.   SELECT CHAR(90)  --->D |
| [What is the use of APP\_NAME()?](http://www.dotnetfunda.com/interview/exam2291-what-is-the-use-of-appname.aspx" \o "What is the use of APP_NAME()?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  APP\_NAME() returns the name of the application for the current section. It returns the application name that is set by the application by default.   SELECT APP\_NAME()  It outputs "SQL Enterprise Manager" if you are currently working on it. |
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| [Can we create Web service in SQL Server 2005?](http://www.dotnetfunda.com/interview/exam2293-can-we-create-web-service-in-sql-server-2005.aspx" \o "Can we create Web service in SQL Server 2005?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Yes, we can create web service in SQL Server 2005 using an HTTP EndPoint |
| [will the increase in the size of viewstate will affect the performance of the page?](http://www.dotnetfunda.com/interview/exam2294-will-the-increase-in-the-size-of-viewstate-will-affect-the-performance-of-t.aspx" \o "will the increase in the size of viewstate will affect the performance of the page?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Yes, it will decrease the performance of the page. |
| [What is the page size of Index Page ?](http://www.dotnetfunda.com/interview/exam2300-what-is-the-page-size-of-index-page.aspx" \o "What is the page size of Index Page ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  8 kb |
| [Name the table where the Index information is saved](http://www.dotnetfunda.com/interview/exam2301-name-the-table-where-the-index-information-is-saved.aspx" \o "Name the table where the Index information is saved) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  the table name is sys.indexes |
| [Which Editor we can use to create the SSIS Packages?](http://www.dotnetfunda.com/interview/exam2303-which-editor-we-can-use-to-create-the-ssis-packages.aspx" \o "Which Editor we can use to create the SSIS Packages?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  BIDS (Business Studio Development Studio) |
| [How we can check the database permission for any user?](http://www.dotnetfunda.com/interview/exam2306-how-we-can-check-the-database-permission-for-any-user.aspx" \o "How we can check the database permission for any user?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  SELECT \* FROM fn\_my\_permissions (null, 'DATABASE'); |
| [How we can deploy SSIS?](http://www.dotnetfunda.com/interview/exam2307-how-we-can-deploy-ssis.aspx" \o "How we can deploy SSIS?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Steps to deploy SSIS are:  (1) Right click on the name of the project in the solution explorer.  (2) Open Properties --> Select Deployment Utility  (3) Set CreateDeploymentUtility to True  (4) Build Project  (5) Check the Deployment folder in bin  (6) Double click on <ProjectName>.SSISDeploymentManifest file. |
| [What the value of Identity\_Insert to be set for letting the insertion in the identity column ?](http://www.dotnetfunda.com/interview/exam2320-what-the-value-of-identityinsert-to-be-set-for-letting-the-insertion-in-th.aspx" \o "What the value of Identity_Insert to be set for letting the insertion in the identity column ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  It's ON and code is  set Identity\_Insert tablename ON |

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| [Can we have option to use configuration file in dts package?](http://www.dotnetfunda.com/interview/exam2335-can-we-have-option-to-use-configuration-file-in-dts-package.aspx" \o "Can we have option to use configuration file in dts package?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  No, we don't have any option of configuration file in dts package. |
| [Can we use Configuration file in SSIS Packages?](http://www.dotnetfunda.com/interview/exam2336-can-we-use-configuration-file-in-ssis-packages.aspx" \o "Can we use Configuration file in SSIS Packages?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Yes, we can use configuration file in SSIS package with extension dtsConfig (XML File). |
| [Name of the task that is used to execute batch file in SSIS package?](http://www.dotnetfunda.com/interview/exam2337-name-of-the-task-that-is-used-to-execute-batch-file-in-ssis-package.aspx" \o "Name of the task that is used to execute batch file in SSIS package?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  **Execute Process Task** is used to execute batch files. |
| [Which Task in SSIS is used to perform operation on a file or directory?](http://www.dotnetfunda.com/interview/exam2338-which-task-in-ssis-is-used-to-perform-operation-on-a-file-or-directory.aspx" \o "Which Task in SSIS is used to perform operation on a file or directory?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  File System task is used to perform operation like move, delete, create file opr directories. |
| [What is the result of "SELECT 2/2/4" in SQL ?](http://www.dotnetfunda.com/interview/exam2367-what-is-the-result-of-select-224-in-sql.aspx" \o "What is the result of \"SELECT 2/2/4\" in SQL  ?) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Difference between Table Variable (@tbl) and temporary table (#temp or ##temp )](http://www.dotnetfunda.com/interview/exam2383-difference-between-table-variable-tbl-and-temporary-table-temp-or-te.aspx" \o "Difference between Table Variable (@tbl) and temporary table (#temp or ##temp )) Posted by: [Puneet20884](http://www.dotnetfunda.com/profile/puneet20884.aspx)  **1.** Transaction logs are not recorded for the table variables.   **2.** A procedure having temporary table is not pre-compiled, while an execution plan of procedures with table variables can be statically compiled in advance.   **3.** Table variables exist only in the same scope as variables.  Differencing to the temporary tables, they are not visible in inner stored procedures and in exec(string) statements. Also, they cannot be used in an insert/exec statement. |
| [Can we execute "BCP" command directly in the SQL Server Management studio?](http://www.dotnetfunda.com/interview/exam2399-can-we-execute-bcp-command-directly-in-the-sql-server-managemen.aspx" \o "Can we execute \"BCP\" command directly in the SQL Server Management studio?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  No, we can't not. BCP utility is a command line utility. To execute it within SQL Server Management studio, one has to enable the xp\_cmdshell. We can execute bcp command through xp\_cmdshell only. xp\_cmdshell by default is false. We need to enable it.   Use below script to enable BCP   EXEC sp\_configure 'show advanced options', 1  GO  -- To update the currently configured value for advanced options.  RECONFIGURE  GO  EXEC sp\_configure 'xp\_cmdshell', 1  GO  RECONFIGURE  GO |
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| [Can we restore the database forcefully when it is in use via SQL script?](http://www.dotnetfunda.com/interview/exam2400-can-we-restore-the-database-forcefully-when-it-is-in-use-via-sql-script.aspx" \o "Can we restore the database forcefully when it is in use via SQL script?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  When you try to restore the database (**RESTORE DATABASE**) through command and if it's in use then SQL SERVER will not allow you to do so. It will throw an error.   But there is a way to restore database forcefully. But there are chances of data loss.   To restore database forcefully, one need to bring it in SINGLE USER mode. and then restore it and again put the database in MULTI USER mode. Make sure, you are always using MASTER database for this operation.   See below script.   --To Restore forcefully to an existing database which is in use.  Use Master;  ALTER DATABASE virendra SET SINGLE\_USER WITH ROLLBACK IMMEDIATE  RESTORE DATABASE virendra FROM DISK='D:\virendra.bak' WITH REPLACE  ALTER DATABASE virendra SET MULTI\_USER  Thanks,  Virendra Dugar |
| [Is it possible to find out .mdf and .ldf file name from the backup(.bak) file? If yes, then how?](http://www.dotnetfunda.com/interview/exam2401-is-it-possible-to-find-out-mdf-and-ldf-file-name-from-the-backupbak-fi.aspx" \o "Is it possible to find out .mdf and .ldf file name from the backup(.bak) file? If yes, then how?) Posted by: [Virendradugar](http://www.dotnetfunda.com/profile/virendradugar.aspx)  YES. It is possible to find out the name of .ldf and .mdf file from the backup file.   Use below script to find out the details:   RESTORE FILELISTONLY FROM DISK='D:\virendra.bak' |
| [Select \* from table1,table2](http://www.dotnetfunda.com/interview/exam2404-select-from-table1table2.aspx" \o "Select * from table1,table2) Posted by: [Bunty\_18](http://www.dotnetfunda.com/profile/bunty_18.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How we can specify the first day of the week?](http://www.dotnetfunda.com/interview/exam2418-how-we-can-specify-the-first-day-of-the-week.aspx" \o "How we can specify the first day of the week?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  Using Set DateFirst we can specify the first day of week. synatx for this is as:   SET DATEFIRST 1  it means monday is the first day of the week.   Thanks  Lakhan Pal Garg |
| [How to get the value of first day of the week?](http://www.dotnetfunda.com/interview/exam2419-how-to-get-the-value-of-first-day-of-the-week.aspx" \o "How to get the value of first day of the week?) Posted by: [Lakhangarg](http://www.dotnetfunda.com/profile/lakhangarg.aspx)  using SELECT @@DATEFIRST we can get the value of first day of the week.  if it will return 1 then it means Monday is the first day but if it returns 7 then that means Sunday is the first day. |
| [What is Tabular Value Function ?](http://www.dotnetfunda.com/interview/exam2420-what-is-tabular-value-function.aspx" \o "What is Tabular Value Function ?) Posted by: [Pavanandey](http://www.dotnetfunda.com/profile/pavanandey.aspx)  A Tabular Value function is one which provides a table like structure as an output from the function, it is like a view which is non updateable |
| [What is two-phase commit?](http://www.dotnetfunda.com/interview/exam2434-what-is-two-phase-commit.aspx" \o "What is two-phase commit?) Posted by: [Raja](http://www.dotnetfunda.com/profile/raja.aspx)  This is a feature in transaction processing systems that enables all databases to be synchronized or in the same state in case some error occurs.   This strategy works in the principal that either all databases are updated or none of them are updated.   DB changes required by the transactions are initially stored temporarily by each database, then a pre-commit command is issued to each databases. The transaction monitor waits for the acknowledgment of the pre-commit command, if received then commit command is sent to each database, that results to make the database change permanent.   In case, the acknowledgment is not received, the rollback command is issued to all the databases. |
| [How many Evaluation Modes are there in "SQL Server 2008 - Policy Based Management" ? Which mode is manual ?](http://www.dotnetfunda.com/interview/exam2439-how-many-evaluation-modes-are-there-in-sql-server-2008-policy-based.aspx" \o "How many Evaluation Modes are there in \"SQL Server 2008 - Policy Based Management\" ? Which mode is manual ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. In "SQL Server 2008 - Policy Based Management", FOUR evaluation modes are there.  - On Demand  - On Change: Prevent  - On Change: Log Only  - On Schedule   2. "On Demand" mode is manual. Remaining three are Automated. |

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| [What is the Product code (Internal Code) for "SQL Server 2005", "SQL Server 2008" and "SQL Server 2008 R2" ?](http://www.dotnetfunda.com/interview/exam2440-what-is-the-product-code-internal-code-for-sql-server-2005.aspx" \o "What is the Product code (Internal Code) for \"SQL Server 2005\", \"SQL Server 2008\" and \"SQL Server 2008 R2\" ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  "Yukon" for SQL Server 2005  "Katmai" for SQL Server 2008  "Kilimanjaro" for SQL Server 2008 R2 |
| [What is the difference between Host\_Name() and ServerProperty('MachineName') Functions ?](http://www.dotnetfunda.com/interview/exam2443-what-is-the-difference-between-hostname-and-serverpropertymachinename.aspx" \o "What is the difference between Host_Name() and ServerProperty('MachineName') Functions ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  The **Host\_Name()** and **ServerProperty('MachineName')** Function will return the System Name(Machine Name).   But the difference is ...   **Host\_Name()** will return the Client Machine name.   **ServerProperty('MachineName')** will return Server Machine name.   ie: CLIENT SQL Server tools only installed on "Computer1" (SQL Server Management Studio) - Connectivity tools only   SERVER SQL Server tools installed on "Computer2" (Databases, SQL Server Services, SQL Server Management Studio, Profiler,...Etc.,)   Now You are the "Client machine (Computer1)", You want to access the Database from the "Server Machine (Computer2)".    **Client Machine (Computer1):**   Select Host\_Name(), ServerProperty('MachineName')   Result:  Computer1, Computer2   **Server Machine (Computer2):**   Select Host\_Name(), ServerProperty('MachineName')   Result:  Computer2, Computer2 |
| [How will you Enable / Disable Resource Governor Using T-SQL in SQL Server 2008 ?](http://www.dotnetfunda.com/interview/exam2444-how-will-you-enable-disable-resource-governor-using-t-sql-in-sql-server-2.aspx" \o "How will you Enable / Disable Resource Governor Using T-SQL in SQL Server 2008 ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **To Enable the Resource Governor :**   Use DatabaseName  Go  ALTER RESOURCE GOVERNOR RECONFIGURE  **To Disable the Resource Governor :**   Use DatabaseName  Go  ALTER RESOURCE GOVERNOR DISABLE |
| [What is the use of "SET NOCOUNT ON;" in SQL Server?](http://www.dotnetfunda.com/interview/exam2449-what-is-the-use-of-set-nocount-on-in-sql-server.aspx" \o "What is the use of \"SET NOCOUNT ON;\" in SQL Server?) Posted by: [SheoNarayan](http://www.dotnetfunda.com/profile/sheonarayan.aspx)  This statement is used to stop the message that shows the count of the number of rows affected by the SQL statement written in the stored procedure or directly SQL Statement. You can view this message in the Management Studio in the Message tab of the result pan.   When it is ON - the number of affected rows will not be returned  When it is OFF - the number of affected rows will be returned   More on this ....   @@ROWCOUNT is used to get the number of rows affected. Note that either the SET NONCOUNT is ON or OFF, @@ROWCOUNT is always updated with the number of rows affected.   For more detailed information on this, visit <http://msdn.microsoft.com/en-us/library/ms189837.aspx> |
| [How will you calculate maximum range of "INT" Data Type ?](http://www.dotnetfunda.com/interview/exam2450-how-will-you-calculate-maximum-range-of-int-data-type.aspx" \o "How will you calculate maximum range of \"INT\" Data Type ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  The Formula Is:  **2 ^ (N-1)**   here, "**N** " is nothing but size of the Data type."**^** " means Power of the value.   **1. We just want to get the Maximum length of the Data type "INT".**  Select (max\_length \* 8) 'Bit(s)' from sys.types Where [name] = 'Int'  The answer is : **32 Bit(s)**   **2. Now, we can apply the formula for Range**  Select Power(Cast(2 as Varchar),(max\_length \* 8) -1) from sys.types Where [name] = 'Int'  The Result is : **2147483648**   The maximum range of "INT" data type is **-2147483648 to 2147483647** |
| [When will you go for SQL Server Authentication instead of Windows Authentication ?](http://www.dotnetfunda.com/interview/exam2452-when-will-you-go-for-sql-server-authentication-instead-of-windows-authentic.aspx" \o "When will you go for SQL Server Authentication instead of Windows Authentication ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  If the server is in **different domain** from our users. So, The two domains don't trust each other. So, We have to use SQL Server authentication. |
| [When will SQL Server throw an Error: "MSSQLSERVER ERROR 576" ?](http://www.dotnetfunda.com/interview/exam2453-when-will-sql-server-throw-an-error-mssqlserver-error-576.aspx" \o "When will SQL Server throw an Error: \"MSSQLSERVER ERROR 576\" ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  The record-size limit for tables that use SPARSE columns is 8018 bytes. When the converted data plus existing record data exceeds 8,018 bytes, The Error will be thrown "MSSQLSERVER ERROR 576".   When columns are converted between SPARSE and NONSPARSE types, Database Engine keeps a copy of the current record data. This temporarily doubles the storage that is required for the record, So the Error triggered. |
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| [What is Instance-aware and Instance-unaware Services in SQL Server ?](http://www.dotnetfunda.com/interview/exam2455-what-is-instance-aware-and-instance-unaware-services-in-sql-server.aspx" \o "What is Instance-aware and Instance-unaware Services in SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **Instance-aware** services are associated with a specific instance of SQL Server, and have their own registry hives. We can install multiple copies of instance-aware services by running SQL Server Setup for each component or service.  ie:  1.SQL Server  2.SQL Server Agent  3.Analysis Services  4.Reporting Services  5.Full-text search   **Instance-unaware** services are shared among all installed SQL Server instances. They are not associated with a specific instance, are installed only once, and cannot be installed side-by-side.  ie:  1.Integration Services  2.SQL Server Browser  3.SQL Server Active Directory Helper  4.SQL Writer |
| [What is the difference between following two statements ? 1. SELECT 'DotnetFunda' 'SQL Server' 2. SELECT 'DotnetFunda' = 'SQL Server'](http://www.dotnetfunda.com/interview/exam2456-what-is-the-difference-between-following-two-statements-1-select-dotne.aspx" \o "What is the difference between following two statements ? 1. SELECT 'DotnetFunda' 'SQL Server'  2. SELECT 'DotnetFunda' = 'SQL Server') Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Difference between the two statements given below   1. SELECT 'DotnetFunda' 'SQL Server'   2. SELECT 'DotnetFunda' = 'SQL Server'   The value 'DotnetFunda' uses 'SQL Server' as an Alias name. Alias will be the column Name.  SELECT 'DotnetFunda' 'SQL Server'  Go  SQL Server  DotnetFunda   The value 'SQL Server' assignes to 'DotnetFunda'. Target will be the column Name.  SELECT 'DotnetFunda' = 'SQL Server'  Go  DotnetFunda  SQL Server |
| [What is "Locking" concept in DBMS?](http://www.dotnetfunda.com/interview/exam2465-what-is-locking-concept-in-dbms.aspx" \o "What is \"Locking\" concept in DBMS?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  Locking is the most common type of concurrency control mechanism. In this approach, any data is retrieved by an active user for updating, must be locked or denied to other users until updating is not complete.   Locking is of three types,  1> Shared Lock(S)  2> Exclusive Lock(X)  3> Dead Lock(D) |
| [What is a "dead lock"?](http://www.dotnetfunda.com/interview/exam2466-what-is-a-dead-lock.aspx" \o "What is a \"dead lock\"?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  A "Dead Lock" happens when two or more transaction is locked from a common resource. In this case each must have to wait for the other to unlock that resource. |
| [What is "Functional Dependency"?](http://www.dotnetfunda.com/interview/exam2467-what-is-functional-dependency.aspx" \o "What is \"Functional Dependency\"?) Posted by: [Abhisek](http://www.dotnetfunda.com/profile/abhisek.aspx)  Suppose there are two sets of attributes, X and Y. Then Y is said to be functionally dependent to X if a given value for each attribute in X uniquely determines the value of the attributes in Y.   Here X is called the determinant of the functional dependency and the functional dependency is denoted as X--->Y |
| [Difference between Database Migration and Upgradation ?](http://www.dotnetfunda.com/interview/exam2576-difference-between-database-migration-and-upgradation.aspx" \o "Difference between Database Migration and Upgradation ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **What is Migration ?**  Migrating from one Product type to another Product type.  **ie: MSAccess to SQL Server, Oracle to SQL Server**   **What is Upgradation ?**  Upgrading from one Edition/Version to another Edition/Version within the same Product type.  **ie:SQL Server 2005 to SQL Server 2008** |
| [How will you validate whether the linked server properly configured / not ?](http://www.dotnetfunda.com/interview/exam2660-how-will-you-validate-whether-the-linked-server-properly-configured-not.aspx" \o "How will you validate whether the linked server properly configured / not ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **Scenario:**  1.You are in **Server1**  2.You have configured a linked server to access the Remote server(**Server2**)  3.How will you validate whether the configured linked server to the **Server2** is properly configured or not ?   **Solution:**  1.Login into Server1  2.Execute the script given below to validate the remote server accessibility.   EXEC sp\_testlinkedserver N'**Server2**'  **Result:**  The result should be : Command(s) completed successfully.   If it throws an Err like : "Server 'Server2' is not configured for DATA ACCESS" then, You have to give Data Access server option.   Use Master  Go  EXEC sp\_serveroption @server=N'Server2', @optname=N'data access', @optvalue=N'true'  Now, Try to validate again   EXEC sp\_testlinkedserver N'**Server2**'  **Result:**  The result should be : Command(s) completed successfully. |
| [SQL Server connection is terminated after the query completes. Why ?](http://www.dotnetfunda.com/interview/exam2661-sql-server-connection-is-terminated-after-the-query-completes-why.aspx" \o "SQL Server connection is terminated after the query completes. Why ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Scenario:  I run a simple query, The connection also Disconnected once the query completed. Why ? and How to fix it ?   Solution:  **Query** Menu --> **Query Options...** --> Select **Advanced** node under the **Execution** root node.  Un-Select the check box "**Disconnect after the query executes**" and Click OK. |

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| [What is constant folding ?](http://www.dotnetfunda.com/interview/exam2668-what-is-constant-folding.aspx" \o "What is constant folding ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  SQL Server evaluates some constant expressions early to improve the query performance. This is referred to as "constant folding" |
| [What is Forced Service ?](http://www.dotnetfunda.com/interview/exam2669-what-is-forced-service.aspx" \o "What is Forced Service ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Database mirroring provides forcing service (with possible data loss) as a disaster recovery method to allow you to use a mirror server as a warm standby server.   Forcing service is possible only if the principal server is disconnected from the mirror server in a mirroring session. Because forcing service risks possible data loss, it should be used cautiously. |
| [Which objects can not be specified "FORCESEEK" table hint from the following list ?](http://www.dotnetfunda.com/interview/exam2670-which-objects-can-not-be-specified-forceseek-table-hint-from-th.aspx" \o "Which objects can not be specified \"FORCESEEK\" table hint from the following list ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Normally we can define hint on Tables, Views, Indexed Views, Table-valued function, CTE, DMV, Table variable, Named Subquery, Openrowset.   But, we can not define FORCESEEK table hint on Table-valued function, Table variable and Openrowset objects/statements. |
| [A Foreign Key constraint can be defined to reference the columns of Non Primary key column ?](http://www.dotnetfunda.com/interview/exam2671-a-foreign-key-constraint-can-be-defined-to-reference-the-columns-of-non-pri.aspx" \o "A Foreign Key constraint can be defined to reference the columns of Non Primary key column ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Yes. A FOREIGN KEY constraint does not have to be linked only to a PRIMARY KEY constraint in another table; it can also be defined to reference the columns of a UNIQUE constraint in another table.   A FOREIGN KEY constraint can contain null values. |
| [What is Self-referencing table ?](http://www.dotnetfunda.com/interview/exam2672-what-is-self-referencing-table.aspx" \o "What is Self-referencing table ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  FOREIGN KEY constraint can reference columns in the same table is called self-referencing tables. |
| [Can a FOREIGN KEY constraint reference the column in tables in the different database ?](http://www.dotnetfunda.com/interview/exam2673-can-a-foreign-key-constraint-reference-the-column-in-tables-in-the-differen.aspx" \o "Can a FOREIGN KEY constraint reference the column in tables in the different database ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  A FOREIGN KEY constraint can reference columns in tables in the same database or within the same table.   The following error occurred when we try to reference the different database  **"**The object name contains more than the maximum number of prefixes. The maximum is 2.**"** |
| [How to identify the "Full-Text search Installed or Not" on your current instance of SQL Server ?](http://www.dotnetfunda.com/interview/exam2728-how-to-identify-the-full-text-search-installed-or-not-on-your-c.aspx" \o "How to identify the \"Full-Text search Installed or Not\" on your current instance of SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  SELECT CASE [Full-Text Search] WHEN 1 THEN 'Full-Text Search Installed' ELSE 'Full-Text Search Not Installed' END 'Status' FROM  (  SELECT SERVERPROPERTY('IsFullTextInstalled') 'Full-Text Search'  ) AS X |
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| [What are the key points to be followed when implementing Full-Text Search on View ?](http://www.dotnetfunda.com/interview/exam2729-what-are-the-key-points-to-be-followed-when-implementing-full-text-search-o.aspx" \o "What are the key points to be followed when implementing Full-Text Search on View ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  When we implement a Full-Text Search on View, We have to follow the key rules   **1. View should be 'WITH SCHEMABINDING'**, Otherwise the following Err will be thrown  *Msg 1939, Level 16, State 1, Line 1  Cannot create index on view 'VM\_DataTypes' because the view is not schema bound.*   **2. All tables should be used with schema name (Two part-naming convension, "SchemaName.TableName")**, Otherwise the following Err will be thrown  *Msg 4512, Level 16, State 3, Procedure VM\_DataTypes, Line 2  Cannot schema bind view 'VM\_DataTypes' because name 'TB\_Category' is invalid for schema binding. Names must be in two-part format and an object cannot reference itself.*   **3. Table hint should not be used inside the view(WITH NOLOCK)**, Otherwise the following Err will be thrown  *Msg 10140, Level 16, State 1, Line 1  Cannot create index on view 'DotNetFunda.dbo.VM\_DataTypes' because the view contains a table hint. Consider removing the hint.*   **4. OUTER Join can not be used Inside the View**   **5. Non-Deterministic & Windows function cannot be used inside the View**   **6. The Unique Index should be created on single column, Not with composite, Non-Nullable**   **7. The Index size should not exceed 900 Bytes.** |
| [How to Enable / Disable the Full-Text Index created on a View / Table ?](http://www.dotnetfunda.com/interview/exam2730-how-to-enable-disable-the-full-text-index-created-on-a-view-table.aspx" \o "How to Enable / Disable the Full-Text Index created on a View / Table ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **To Enable the Full-Text search Index already created on a View/Table :**  EXEC dbo.sp\_fulltext\_table @tabname=N'[dbo].Table or View Name', @action=N'activate'   **To Disable the Full-Text search Index already created on a View/Table :**  EXEC dbo.sp\_fulltext\_table @tabname=N'[dbo].Table or View Name', @action=N'deactivate' |
| [What is Delegation in SQL Server ?](http://www.dotnetfunda.com/interview/exam2799-what-is-delegation-in-sql-server.aspx" \o "What is Delegation in SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  SQL Server and Windows can be configured to enable a client connected to an instance of SQL Server to connect to another instance of SQL Server by forwarding the credentials of an authenticated Windows user. This arrangement is known as delegation. |
| [What is "Double Hop" in SQL Server ?](http://www.dotnetfunda.com/interview/exam2800-what-is-double-hop-in-sql-server.aspx" \o "What is \"Double Hop\" in SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  One computer connects to another computer to connect to a third computer, is called a double hop. |
| [How to respond to a Full Transaction Log Error in SQL Server ?](http://www.dotnetfunda.com/interview/exam2801-how-to-respond-to-a-full-transaction-log-error-in-sql-server.aspx" \o "How to respond to a Full Transaction Log Error in SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Normally the Transaction Log full Err occurred with 9002 Error code.   1. Backing up and Truncating the log.  2. Freeing the transaction physical disk space so that the log can automatically grow.  3. Moving the log file to a different disk drive with sufficient space.  4. Increasing the size of a log file(Initial and Growth).  5. Completing or killing a long-running transaction. |
| [Maximum How many Row(s) will be there in Sys.Indexes view for Each table in SQL Server 2008/2008 R2 ?](http://www.dotnetfunda.com/interview/exam2850-maximum-how-many-rows-will-be-there-in-sysindexes-view-for-each-table-in.aspx" \o "Maximum How many Row(s) will be there in Sys.Indexes view for Each table in SQL Server 2008/2008 R2 ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Normally, When we create a new table, One entry will be there in Sys.Indexes view as 'HEAP' the Index\_ID is '0', If we create a CLUSTERED Index on that table then, The 'HEAP' will be replaced as 'CLUSTERED' the Index\_ID is '1'.   When we create a NONCLUSTERED Index on remaining columns then the Index\_ID will be increased as 2,3,4,5....1005. Normally, a table can have maximum 999 NONCLUSTERED INDEXES and 1 CLUSTERED INDEX, Totally a table can have 1000 INDEXES.   But, The Index\_ID in Sys.Indexes will be 0 or 1 to 250 and 256 to 1005 (Totally 1000 Indexes/Entries in Sys.Indexes View for a table). Then what about the 251 to 255 (5 Sequence have been reserved for Index Internals).   Finally, An Index\_id will be 0 or 1 to 250 and 256 to 1005 (Maximum 1000 Entries will be there in Sys.Indexes View for each table), Minimum 1 entry will be there as 'HEAP' or 'CLUSTERED' |
| [What does the Group By clause mean when used in databases?](http://www.dotnetfunda.com/interview/exam3058-what-does-the-group-by-clause-mean-when-used-in-databases.aspx" \o "What does the Group By clause mean when used in databases?) Posted by: [Vpramodg](http://www.dotnetfunda.com/profile/vpramodg.aspx)  Group By clause is Used usually with Aggregate Functions (eg. sum, average) to group rows with same data together. |
| [What do these keywords mean with respect to Sql Server? a) @@Identity b) @@Rowcount c) @@Error](http://www.dotnetfunda.com/interview/exam3059-what-do-these-keywords-mean-with-respect-to-sql-server-a-identity-b.aspx" \o "What do these keywords mean with respect to Sql Server? a) @@Identity b) @@Rowcount c) @@Error) Posted by: [Vpramodg](http://www.dotnetfunda.com/profile/vpramodg.aspx)  a) @@Identity means newly inserted row of int identity column  b) @@Rowcount is the number of rows affected by last statement  c) @@Error means last error that has occurred during a Transact-SQL operation |

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| [What is Stored Procedure? What is the advantage of these?](http://www.dotnetfunda.com/interview/exam3101-what-is-stored-procedure-what-is-the-advantage-of-these.aspx" \o "What is Stored Procedure? What is the advantage of these?) Posted by: [Vpramodg](http://www.dotnetfunda.com/profile/vpramodg.aspx)  Stored Procedure means a group of T-SQL statements stored under a name and executed as a single unit of work. A stored procedure can be called from another stored procedure, from a client application.   Advantages are given below:-   Fast Execution  Network Load Reduction.  Security. |
| [What is error handling in stored procedures of SQL Server 2008?](http://www.dotnetfunda.com/interview/exam3118-what-is-error-handling-in-stored-procedures-of-sql-server-2008.aspx" \o "What is error handling in stored procedures of SQL Server 2008?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  In previous versions of SQL Server you would handle exceptions by checking the @@error global variable immediately after an INSERT, UPDATE or DELETE, and then perform some corrective action if @@error did not equal zero.   SQL Server 2005 provides structured exception handing through TRY CATCH block as other programming language like JAVA, C# etc.   Example:   BEGIN TRY  RAISERROR ('A problem is raised', 16,1)  END TRY  BEGIN CATCH  SELECT ERROR\_NUMBER() as ERROR\_NUMBER,  ERROR\_SEVERITY() as ERROR\_SEVERITY,  ERROR\_STATE() as ERROR\_STATE,  ERROR\_MESSAGE() as ERROR\_MESSAGE  END CATCH  • **ERROR\_NUMBER()** returns the number of the errors.  • **ERROR\_SEVERITY()** returns the severity.  • **ERROR\_STATE()**returns the error state number.  • **ERROR\_PROCEDURE()** returns the name of the stored procedure or trigger where the error occurred.  • **ERROR\_LINE()** returns the line number inside the routine that caused the error.  • **ERROR\_MESSAGE()** returns the complete text of the error message. The text includes the values supplied for any substitutable parameters, such as lengths, object names and times etc. |
| [Describe how you can optimize stored procedures in SQL Server?](http://www.dotnetfunda.com/interview/exam3119-describe-how-you-can-optimize-stored-procedures-in-sql-server.aspx" \o "Describe how you can optimize stored procedures in SQL Server?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  Below are some points to optimize stored procedure in SQL Server   • Use as much as possible WHERE clause filters. Where Clause is the most important part for optimization.   • Select only those fields which really required.   • Joins are expensive in terms of time. Make sure that use all the keys that relate to the tables together and don't join to the unused tables, always try to join on indexed fields. The join type is important as well in (INNER, OUTER). |
| [Describe what is trigger in SQL Server?](http://www.dotnetfunda.com/interview/exam3120-describe-what-is-trigger-in-sql-server.aspx" \o "Describe what is trigger in SQL Server?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  In any database including SQL Server a trigger is a procedure that initiates on INSERT, DELETE or UPDATE actions.   Before SQL Server 2000 Triggers are also used to maintain the referential integrity. We can not execute triggers explicitly. The DBMS automatically fires the trigger when data modification events (INSERT, DELETE or UPDATE) happened in the associated table.   Triggers are same as stored procedures in terms of procedural logic that is stored at the database level. Stored procedures are executed explicitly and triggers are event-drive. |
| [How can you describe RDBMS?](http://www.dotnetfunda.com/interview/exam3121-how-can-you-describe-rdbms.aspx" \o "How can you describe RDBMS?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  Relational Data Base Management Systems (RDBMS) are database management systems that maintain data records and indices in tables. With this the relationships are created and maintained across tables between data. Interdependencies between these tables are defined by the data values. |
| [I could not see the Maintenance Plans when I login into my LoginID, But its showing in some other LoginId, Why ?](http://www.dotnetfunda.com/interview/exam3135-i-could-not-see-the-maintenance-plans-when-i-login-into-my-loginid-but-its.aspx" \o "I could not see the Maintenance Plans when I login into my LoginID, But its showing in some other LoginId, Why ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Your LoginID should be a member of SysAdmin role.   Object Explorer only displays the Maintenance Plans node for users who are members of the sysadmin fixed server role.  SELECT CASE SysAdmin WHEN 1 THEN 'You are a member of ''Sysadmin'' role' ELSE 'You are not member of ''Sysadmin'' role' END 'Sysadmin Role Permission' FROM  (  SELECT IS\_SRVROLEMEMBER(N'sysadmin') [SysAdmin]  )AS S |
| [How to run Maintenence Plan using script ?](http://www.dotnetfunda.com/interview/exam3136-how-to-run-maintenence-plan-using-script.aspx" \o "How to run Maintenence Plan using script ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  DECLARE @PlanID VARCHAR(36)    SELECT @PlanID = id FROM msdb.dbo.sysmaintplan\_plans  WHERE [NAME] ='Maintenance Plan Name'    EXECUTE msdb..sp\_maintplan\_start @PlanID,NULL  GO |
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| [How to execute a SQL Job using script ?](http://www.dotnetfunda.com/interview/exam3137-how-to-execute-a-sql-job-using-script.aspx" \o "How to execute a SQL Job using script ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  DECLARE @JobID VARCHAR(36),  @retval INT    SELECT @JobID = Job\_ID FROM msdb.dbo.sysjobs\_view  WHERE [Name] = 'SQL Job Name'    EXEC @retval = msdb.dbo.sp\_start\_job @job\_id = @JobID  GO |
| [How to identify the SQL Server Start/Restart Date & Time ?](http://www.dotnetfunda.com/interview/exam3148-how-to-identify-the-sql-server-startrestart-date-time.aspx" \o "How to identify the SQL Server Start/Restart Date & Time ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  *1. When was the SQL Server Service Started ?*  SELECT sqlserver\_start\_time 'SQL Server Started at' FROM sys.dm\_os\_sys\_info  GO  *2. When was the TempDB database Re-Created ?*  SELECT create\_date 'SQL Server Started at' FROM sys.databases WHERE [name] ='tempdb'  GO  Both the query have some difference on it's Time, Because, The Tempdb database will be Re-created after the SQL Server service started. |
| [How to identify the Total/Available/Used Physical Memory in database server using script ?](http://www.dotnetfunda.com/interview/exam3149-how-to-identify-the-totalavailableused-physical-memory-in-database-server.aspx" \o "How to identify the Total/Available/Used Physical Memory in database server using script ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  SELECT (total\_physical\_memory\_kb/1024.)/1024. 'Total Physical Memory(GB)',  (available\_physical\_memory\_kb/1024.)/1024. 'Available Physical Memory(GB)',  (100 / ((total\_physical\_memory\_kb/1024.)/1024.)) \* (((total\_physical\_memory\_kb/1024.)/1024.) - ((available\_physical\_memory\_kb/1024.)/1024.)) 'Used Physical Memory(%)' ,  (100 / ((total\_physical\_memory\_kb/1024.)/1024.)) \* ((available\_physical\_memory\_kb/1024.)/1024.) 'Available Physical Memory(%)',  system\_memory\_state\_desc 'Memory Status'  FROM sys.dm\_os\_sys\_memory |
| [Which SQL Server Profiler event enables to trace the users involved in Deadlock cycle ?](http://www.dotnetfunda.com/interview/exam3173-which-sql-server-profiler-event-enables-to-trace-the-users-involved-in-dead.aspx" \o "Which SQL Server Profiler event enables to trace the users involved in Deadlock cycle ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How do you install SQL Server to take advantage of Microsoft Server Clustering ?](http://www.dotnetfunda.com/interview/exam3174-how-do-you-install-sql-server-to-take-advantage-of-microsoft-server-cluster.aspx" \o "How do you install SQL Server to take advantage of Microsoft Server Clustering ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are the various options to move the data/databases ?](http://www.dotnetfunda.com/interview/exam3175-what-are-the-various-options-to-move-the-datadatabases.aspx" \o "What are the various options to move the data/databases ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  We have lots of options, we have to choose our option depending upon our requirements.   1.BACKUP/RESTORE  2.Dettaching, Moving the files and attaching databases  3.Replication  4.Mirroring  5.Logshipping  6.Implementing Linked Server and accessing the data using four / three part naning convention  7.DTS or DTSX  8.BCP  9.INSERT…SELECT or SELECT…INTO  10. Creating INSERT scripts to generate data. |
| [What are the restrictions apply to compressed backups ?](http://www.dotnetfunda.com/interview/exam3425-what-are-the-restrictions-apply-to-compressed-backups.aspx" \o "What are the restrictions apply to compressed backups ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  The compressed backup was introduced in *SQL Server 2008 Enterprise*.So this technique applicable in *SQL Server 2008 Enterprise Edition and Later*.   **The following are the compressed backup restrictions :**  1. Compressed and uncompressed backups cannot co-exist in a media set.  2. Previous versions of SQL Server cannot read compressed backups.  3. NTbackups cannot share a tape with compressed SQL Server backups. |
| [How to enable compressed backup ?](http://www.dotnetfunda.com/interview/exam3426-how-to-enable-compressed-backup.aspx" \o "How to enable compressed backup ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Compressed backup was introduced in SQL Server 2008 Enterprises edition and later only.  EXEC sys.sp\_configure N'backup compression default', N'1'  GO  RECONFIGURE WITH OVERRIDE  GO  Once you enable the compressed backup, When you perform the backup next time, The backup will be compressed by default. |

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| [What are the performance counters used to monitor the Backup I/O performance ?](http://www.dotnetfunda.com/interview/exam3427-what-are-the-performance-counters-used-to-monitor-the-backup-io-performanc.aspx" \o "What are the performance counters used to monitor the Backup I/O performance ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. *Device Throughput Bytes/sec* counter of *SQLServer:Backup Device* Performance object   2. *Backup/Restore Throughput/sec* counter of *SQLServer:Databases* Performance object |
| [What is Network model?](http://www.dotnetfunda.com/interview/exam3469-what-is-network-model.aspx" \o "What is Network model?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  A network model is a database model by which we can represent objects and their relationships. These models define a set of network layers and it provides greater flexibility and easy access to data. This model provides the logical relationship among many parent databases. |
| [Explain about the hierarchical model of database?](http://www.dotnetfunda.com/interview/exam3470-explain-about-the-hierarchical-model-of-database.aspx" \o "Explain about the hierarchical model of database?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  The hierarchical data model means a base data can have its corresponding branches i.e. the data is organized into tree structure. In this all attributes of a specific record are listed under an entity type. In this model you can form relationship among many tables with certain concepts. Here each record is represented as a row and an attribute as a column. |
| [Explain what is object oriented databases?](http://www.dotnetfunda.com/interview/exam3471-explain-what-is-object-oriented-databases.aspx" \o "Explain what is object oriented databases?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  The object oriented database is a database management system which supports the creation and modeling of data as objects. It should support two criteria i.e. it should be a DBMS and it should be an object oriented system. These databases are used to store complex data, to store information related to multimedia, Engineering databases, spatial databases etc. |
| [Explain about XML databases?](http://www.dotnetfunda.com/interview/exam3472-explain-about-xml-databases.aspx" \o "Explain about XML databases?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  The XML database is use to organize data irrespective of whether it is organized or not. These are used in applications such as informational portals, document exchanges, and product catalogs. This data can exported and serialized into below mentioned format. There are two different XML database class exists.   **XML-enabled:** This is a traditional database such as a relational database which accepts XML as input and rendering XML as output. This shows that the database does the conversion to itself. Basically this is used to store data-centric documents which include highly structured information.   **Native XML:** These types of databases depend on XML and uses XML documents as a storage unit. Basically this is designed to store semi-structured information, such as marketing brochures or health data and that semi-structured contained data are referred to as document-centric. It manages the documents by grouping them into a logical collection and can manage multiple collections simultaneously. |
| [Write disadvantage of File Processing System and what are the advantages of Database over File Processing System?](http://www.dotnetfunda.com/interview/exam3473-write-disadvantage-of-file-processing-system-and-what-are-the-advantages-of.aspx" \o "Write disadvantage of File Processing System and what are the advantages of Database over File Processing System?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  • The data redundancy and consistency is not easy in File System but in Database it is possible.  • It is difficult to access data in File Processing System but in Database it can be done easily.  • The File System is unable to provide data isolation but Database provides.  • In File System you will not get data integrity but the Database can have data integrity.  • Concurrent access is not possible in File System but possible in Database.  • There is no security in the File System but you will get this facility in Database. |
| [Define Rollback and Rollforward?](http://www.dotnetfunda.com/interview/exam3474-define-rollback-and-rollforward.aspx" \o "Define Rollback and Rollforward?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  **Rollback:** The Rollback transaction is a transaction which rolls back the transaction to the beginning of the transaction. The transaction can be rolled back completely by specifying the transaction name in the Rollback statement or to cancel any changes to a database during current transaction. It is permissible to use before Commit transaction.   **Rollforward:** Recovering a database by applying different transactions that recorded in the database log files. It is nothing but re-doing the changes made by a transaction i.e. after the committed transaction and to over write the changed value again to ensure consistency. |
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| [Define Concurrency and Concurrency control? Explain what are the different techniques?](http://www.dotnetfunda.com/interview/exam3475-define-concurrency-and-concurrency-control-explain-what-are-the-different.aspx" \o "Define Concurrency and Concurrency control? Explain what are the different techniques?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  Concurrency allows us the simultaneous access of same data by different users. The process of managing simultaneous execution of transactions in a shared database, to ensure the serializability of transactions, is known as concurrency control. It avoids the adverse effect of one transaction to another transaction. These are of two types.   **Pessimistic concurrency control:** It assumes when a conflicts happen. This technique detects conflicts as soon as they occur and resolve them using locking. The system lock prevents users from modifying data in a way so that it will not affect other user. After a user performs an action that causes a lock to be applied, so that other users cannot perform any action on that.   **Optimistic concurrency control:** This is called optimistic because the conflicts between transactions are rare and it doesn't require locking. Here the transactions are executed without any restrictions. It is mainly used when there is low contention for data and it checks for conflicts before the commit. |
| [What is a Database Transaction?](http://www.dotnetfunda.com/interview/exam3476-what-is-a-database-transaction.aspx" \o "What is a Database Transaction?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  A Database Transaction is a logical unit of database operations and a unit of work in database management system. These are highly important to use transactions when working with databases. In this the SQL statement is treated as a transaction and will be automatically committed immediately after it is successfully executed. For this successful transaction that is from begin to end transaction, it follows the term ACID (Atomicity, Consistency, Isolation, Durability).   To implement Database Transaction we have to follow the following steps i.e.   beginTransaction();  setTransactionSuccessful();  endTransaction(); |
| [What is the difference between a Database Administrator and a Data Administrator?](http://www.dotnetfunda.com/interview/exam3477-what-is-the-difference-between-a-database-administrator-and-a-data-administ.aspx" \o "What is the difference between a Database Administrator and a Data Administrator?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  **Database Administrator:** The basic role of a Database Administrator is to store and manage the information in the database. They are responsible for reviewing the contents in the database. They are performing all the activities related to maintaining the database and responsible for designing, implementing the database. Also their responsible is to backed up data regularly and prevent from unauthorized access. They are also known as Database Coordinator or Database Programmer.   The different functionalities of a database administrator are maintaining database system software, developing physical database structures and data dictionary.   **Data Administrator:**The Data Administrator is responsible for defining data elements, data names and their relationship with the database analyst. The basic responsible is how to install and configure the RDBMS applications and also they have to know the requirements of the software application in terms of functions and assure the data integrity. They are also known as Data Analyst. Following are some basic steps for a Data Administrator,   • Specification of organization data.  • The design and maintenance of data management application.  • Validating the data and files.  • Security of files or databases. |
| [What is difference between SUBSTR and INSTR in the SQL?](http://www.dotnetfunda.com/interview/exam3545-what-is-difference-between-substr-and-instr-in-the-sql.aspx" \o "What is difference between SUBSTR and INSTR in the SQL?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  The **SUBSTR** function returns a specific portion of a string  Example: SUBSTR('DotNetFunda',6)  The result will be: DotNet   The**INSTR** function provides character position in a pattern of string.  Example: INSTR('Dot-Net-Funda','-',2)  The result will be: 8 (2nd occurrence of '-') |
| [What is the difference between =, == and ===?](http://www.dotnetfunda.com/interview/exam3546-what-is-the-difference-between-and.aspx" \o "What is the difference between =, == and ===?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  ‘=’ is for assigning one value to the other variable.  ‘==’ is for the comparison between string with number, number with number etc.  ‘===’ is for the comparison between only number with number and string with string.   Example:  // for '=' operator   if(a=b+c)  {  alert('true')  }  It will be true if it not contains any zero, false, and any empty string.   //for '==' operator   if(a==b+c)  {  alert('true')  }  Suppose the value of x is "5" and the value of y, z is 8, -3 then the if condition will return value true. Here we are comparing string with the number.   //for '===' operator   if(x===y+z)  {  alert('true')  }  The above example is not possible for this case because x value and the result of y+z value are either number and string. It will work on the below example.   if(5 === y + z)  {  alert('true');  } |
| [What is a VIEW in Sql Server?](http://www.dotnetfunda.com/interview/exam3576-what-is-a-view-in-sql-server.aspx" \o "What is a VIEW in Sql Server?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  View is a Virtual table which contains columns from one or more tables. It does not contain any data directly. A group of Query incorporated into one or more tables which is stored in the Database as a form of an Object. |
| [How the SELECT statement parsed/executed by the SQL Server engine ?](http://www.dotnetfunda.com/interview/exam3588-how-the-select-statement-parsedexecuted-by-the-sql-server-engine.aspx" \o "How the SELECT statement parsed/executed by the SQL Server engine ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  When run a SELECT statement, The statement is processed by the various factors   1.The PARSER scans/reads the SELECT statement and splits it into some logical units such.  i.e: keywords/reserved word, operators, expressions and identifiers.   2. SEQUENCE TREE or QUERY TREE is built the logical steps needed to transform the source data into the format as needed by the end result.   3. The QUERY OPRIMIZER analyzes the query in various ways and selects the series of steps that returns the end results fastest way. The query tree is updated to record this exact series of steps. The final, optimized version of the query tree is called the execution plan.   4. The RELATIONAL ENGINE starts executing the execution plan which was prepared by the Query Optimizer.   5.The RELATIONAL ENGINE requests the STORAGE ENGINE pass up data from the rowsets requested.   6. The RELATIONAL ENGINE processes the data returned from the storage engine to the client.   Cheers |
| [What is the purpose of Model database ?](http://www.dotnetfunda.com/interview/exam3596-what-is-the-purpose-of-model-database.aspx" \o "What is the purpose of Model database ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. The Model database is a Stencil or Template for creating an user-defined database.   2. If any Objects (Tables, Stored procedures or Users) that need to exist in all our user defined database should be placed in Model database first.   3. When placing these kind of objects in Model database, will increase the minimum size of our user defined database |

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| [Can we work on both (After) and (InsteadOf) Triggers in SQL on a single table?](http://www.dotnetfunda.com/interview/exam3597-can-we-work-on-both-after-and-insteadof-triggers-in-sql-on-a-single-tab.aspx" \o "Can we work on both (After) and (InsteadOf) Triggers in SQL on a single table?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  **We can create any type of triggers on a single table . But the thing is if we have Instead Of Trigger created on a table untill and unless it is disabled or deleted we cannot work on After Triggers.  At a single strech we cannot work on both the types.** |
| [How will you create a DML Trigger?](http://www.dotnetfunda.com/interview/exam3598-how-will-you-create-a-dml-trigger.aspx" \o "How will you create a DML Trigger?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  The procedure to create a **DML** trigger is :   **CREATE TRIGGER (TRIGGER\_NAME)  ON (TABLE\_NAME)  AFTER (INSERT OR UPDATE OR DELETE)  AS  PRINT 'MESSAGE'  GO** |
| [Difference between Backup Dump and Backup Device ?](http://www.dotnetfunda.com/interview/exam3602-difference-between-backup-dump-and-backup-device.aspx" \o "Difference between Backup Dump and Backup Device ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. The term *Backup Dump* and *Backup Device* are the same and does the same activity.  2. Then, why we are using the system stored procedure sp\_addumpdevice to define a Backup device.  3. The reason is SQL Server 6.5 and earlier, the concept of Backup Device actually used the syntax as given below  DUMP DATABASE ....  DUMP LOG ....  4. So we still using the procedure(sp\_addumpdevice) to define Backup Device for backward compatibility |
| [To identify the Expiration date of database backup file](http://www.dotnetfunda.com/interview/exam3603-to-identify-the-expiration-date-of-database-backup-file.aspx" \o "To identify the Expiration date of database backup file) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  - Normally, when we take a database backup, we can specify that, How long the Database backup file(.Bak) should be valid.  - After that, The backup file(.bak) no longer available...  - So, How to identity the Expiration date of a backup file(.bak) ?  RESTORE HEADERONLY FROM DISK='<Backup File Path.Bak>'  - It will return a result set with 52 columns, we have a columns like ExpirationDate.  - If the ExpirationDate column is null then, you have not specified any Expiration option while you took the backup.  - If the ExpirationDate column is some date then, The backup file no longer valid after the date specified. |
| [What is the exact use of PIVOT in sql server ?](http://www.dotnetfunda.com/interview/exam3604-what-is-the-exact-use-of-pivot-in-sql-server.aspx" \o "What is the exact use of PIVOT in sql server ?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  The use of **Pivot**element is , it is used to reorganize and summarize the selected columns and rows of data in a table to produce the desired reports.   For example ,   Let us create a table :   CREATE TABLE ItemSales(  SalesPerson VARCHAR(50),  Item VARCHAR(50),  ItemAmount INT)  Insert values into it :   INSERT INTO ItemSales  VALUES('Person1', 'Pickles', $100.00)  INSERT INTO ItemSales  VALUES('Person1', 'Pickles', $100.00)  INSERT INTO ItemSales  VALUES('Person2' ,'Oranges' ,$50.00 )  INSERT INTO ItemSales  VALUES('Person2', 'Pickles', $25.00)  INSERT INTO ItemSales  VALUES('Person2', 'Oranges', $300.00)  INSERT INTO ItemSales  VALUES('Person1', 'Oranges', $500.00)  Now create and assigning a pivot element   SELECT SalesPerson, [Oranges] AS Oranges, [Pickles] AS Pickles  FROM  (SELECT SalesPerson, Item, ItemAmount  FROM ItemSales ) ps  PIVOT  (  SUM (ItemAmount)  FOR Item IN  ( [Oranges], [Pickles])  ) AS Pvt  After this the complete data is summarized and the report generated is in this format:   -----------------------------------------------  SalesPerson || Oranges || Pickles  -----------------------------------------------  Person1 || 500 || 200  Person2 || 350 || 25 |
| [What do you meant by an UnPivot element in sql server?](http://www.dotnetfunda.com/interview/exam3605-what-do-you-meant-by-an-unpivot-element-in-sql-server.aspx" \o "What do you meant by an UnPivot element in sql server?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  As the name implies, an **UnPivot** element is absolutely opposite to **Pivot**operation.Generally when we invoke an UnPivot operation it would turn the pivoted elements into rows. That means one row of data for every column is to be unpivoted.   It could be well explained by using a simple example.   Let us create a table first :   CREATE TABLE EMP(  EID INT,  ENAME VARCHAR(50),  JOB VARCHAR(50),  SAL INT  )  Insert values into it :   INSERT INTO EMP1  VALUES(1,'NARENDRA','MANAGER',10000)  INSERT INTO EMP1  VALUES(2,'SRIDHAR','ANYLYST',12000)  INSERT INTO EMP1  VALUES(3,'NAREN','CLERK',14000)  INSERT INTO EMP1  VALUES(4,'NARENDRA','MANAGER',11000)  INSERT INTO EMP1  VALUES(5,'SRIDHAR','ANYLYST',13000)  INSERT INTO EMPTABLE1  VALUES(6,'NAREN','CLERK',15000)  INSERT INTO EMP1  VALUES(7,'NARENDRA','MANAGER',12000)  INSERT INTO EMP1  VALUES(8,'SRIDHAR','ANYLYST',14000)  INSERT INTO EMP1  VALUES(9,'NAREN','CLERK',16000)  INSERT INTO EMP1  VALUES(10,'NARENDRA','MANAGER',13000)  INSERT INTO EMP1  VALUES(11,'ARAVIND','MANAGER',15000)  Now apply UnPivot property :   SELECT EID , Property, Value  FROM (SELECT EID,  CONVERT(sql\_variant,EName) AS EName,  CONVERT(sql\_variant,JOB) AS JOB,  CONVERT(sql\_variant,SAL) AS SAL  FROM EMP1) EMP1  UNPIVOT (Value For Property In (EName, JOB, SAL)) as UPT  Now the final **output**will be in this format :   ------------------------------------------------  EID || Property || Value  -----------------------------------------------  1 || EName || NARENDRA  1 || JOB || MANAGER  1 || SAL || 10000  .  .  .  .   In this way it goes and seperates all the records in the table. |
| [Limitations of using AWE Memory in SQL Server](http://www.dotnetfunda.com/interview/exam3611-limitations-of-using-awe-memory-in-sql-server.aspx" \o "Limitations of using AWE Memory in SQL Server) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. SQL Server uses AWE(Address Windowing Memory) to use Physical Memory over 4GB on 32 bit Operating system.  2. AWE option supported in SQL Server Enterprise, Standard & Developer editions only.  3. AWE option allowed only in 32 bit operating system.  4. But this option is available in 64 bit operating system also, But its ignored, In futured version of service pack, The option will be removed.  5. SSAS (Analysis Services) can not take advantage of AWE memory. |
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| [Difference between PAD\_Index and FillFactor ?](http://www.dotnetfunda.com/interview/exam3617-difference-between-padindex-and-fillfactor.aspx" \o "Difference between PAD_Index and FillFactor ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **PAD\_Index** : When we create or modify an index, The percentage of free space allocated in the INTERMEDIATE LEVEL pages during the operation.   **FillFactor** :When we create or modify an index, The percentage of free space allocated in the LEAF LEVEL of each index page during the operation. |
| [What are the Advantages of using SQL Triggers ?](http://www.dotnetfunda.com/interview/exam3682-what-are-the-advantages-of-using-sql-triggers.aspx" \o "What are the Advantages of using SQL Triggers ?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  Different Advantages of Using SQL Triggers :   . It can catch the errors in business logic at the database level.   . It provides an alternative way to run scheduled tasks.   . It is very much useful when we use it to audit the change the data in a database table.   . Using SQL trigger,we don’t have to wait to run the scheduled tasks. we can handle  those tasks before or after changes being made to database tables.    . It provides an alternative way to check integrity. |
| [What are the Disadvantages of using SQL Triggers ?](http://www.dotnetfunda.com/interview/exam3683-what-are-the-disadvantages-of-using-sql-triggers.aspx" \o "What are the Disadvantages of using SQL Triggers ?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  Disadvantages of Using SQL Triggers :   . Trigger can provide extended validation and it cannot be replaced with all the validations.   . Simple validations can be done at the application level itself .   . Triggers executes invisibly from client-application which connects to the database server.So it is difficult to figure out what happens at the database layer.   . Triggers runs on every update made to the table therefore it adds more load to the database and cause the system to run slow. |
| [What is UNIQUE KEY constraint](http://www.dotnetfunda.com/interview/exam3690-what-is-unique-key-constraint.aspx" \o "What is UNIQUE KEY constraint) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  ? It enforces the uniqueness of the values in a set of columns, so no duplicate values are entered.  ? The unique key constraints are used to enforce entity integrity as the primary key constraints. |
| [What are cross joins?](http://www.dotnetfunda.com/interview/exam3695-what-are-cross-joins.aspx" \o "What are cross joins?) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  ? A cross join that does not have a WHERE clause produces the Cartesian product of the tables involved in the join.  ? The size of a Cartesian product result set is the number of rows in the first table multiplied by the number of rows in the second table.  ? Example: is when company wants to combine each product with a pricing table to analyze each product at each price. |
| [What is a view?](http://www.dotnetfunda.com/interview/exam3698-what-is-a-view.aspx" \o "What is a view?) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  ? It can be thought of as a subset of a table.  ? It can be used for retrieving data, as well as updating or deleting rows.  ? Rows updated or deleted in the view are updated or deleted in the table the view was created.  ? It should also be noted that as data in the original table changes, so does data in the view, as views are the way to look at part of the original table.  ? The results of using a view are not permanently stored in the database. |
| [What are the index combination's a table can have?](http://www.dotnetfunda.com/interview/exam3699-what-are-the-index-combination39s-a-table-can-have.aspx" \o "What are the index combination's a table can have?) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  ? Indexes  ? A clustered index  ? A clustered index and many nonclustered indexes  ? A nonclustered index  ? Many nonclustered indexes |
| [What is an index?](http://www.dotnetfunda.com/interview/exam3700-what-is-an-index.aspx" \o "What is an index?) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  ? An index is a physical structure containing pointers to the data.  ? Indices are created in an existing table to locate rows more quickly and efficiently.  ? It's possible to create index on one or more columns of a table, and each index is given a name.  ? The users cannot see the indexes; they are just used to speed up queries.  ? Effective indexes are one of the best ways to improve performance in a database application.  ? A table scan happens when there is no index available to help a query. In a table scan SQL Server examines every row in the table to satisfy the query results.  ? Table scans are sometimes unavoidable, but on large tables, scans have a terrific impact on performance. |

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| [How the indexing is getting worked?](http://www.dotnetfunda.com/interview/exam3705-how-the-indexing-is-getting-worked.aspx" \o "How the indexing is getting worked?) Posted by: [Suresh.mekkattil](http://www.dotnetfunda.com/profile/suresh.mekkattil.aspx)  Indexing is basically working by means of sorting of the columns.  When you create a primary key field a Clustered Index will automatically created. And once that created ou cann't add more clustered index to that table.   This is because there is already a clustered index there and there is no other posibility for sorting the other row since the indexes are working by means of sort. |
| [Difference between VARCHAR and NVARCHAR](http://www.dotnetfunda.com/interview/exam3796-difference-between-varchar-and-nvarchar.aspx" \o "Difference between VARCHAR and NVARCHAR) Posted by: [Sathya4260](http://www.dotnetfunda.com/profile/sathya4260.aspx)  VARCHAR:   1.Storage: 8 bit  2.Abbreviation: Variable -Length Character String  3.Accepts only English character  4.Doesn't supports other language symbols  5.Runs faster than NVARCHAR as consumes less memory  6.Use this when you develop the application for only local purpose   NVARCHAR:   1.Storage: 16 bit  2.Abbreviation: uNicode  3.Accepts both English character and non-English symbols  4.supports other language symbols  5.Runs slower than VARCHAR as consumes less memory  6.Use this when you use your application globally |
| [What is normalization?](http://www.dotnetfunda.com/interview/exam3811-what-is-normalization.aspx" \o "What is normalization?) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  Normalization is a process in RDBMS to minimize the redundancy of organising the data. It normally used to divide the tables in to one or two based on the relation between the data and organize to maintain the simplicity. |
| [What is the maximum number of parameters SQL Stored procedure can have?](http://www.dotnetfunda.com/interview/exam3813-what-is-the-maximum-number-of-parameters-sql-stored-procedure-can-have.aspx" \o "What is the maximum number of parameters SQL Stored procedure can have?) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Difference between "RID" and "KEY" lock(s) in SQL Server](http://www.dotnetfunda.com/interview/exam3831-difference-between-rid-and-key-locks-in-sql-serve.aspx" \o "Difference between \"RID\" and \"KEY\" lock(s) in SQL Server) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  **RID**:- Row ID. A lock on a single row in a heap (Heap is a table which doesn't have Clustered Index)   **KEY**:- A Lock on a single row in an Index   Cheers  [www.sqlserverbuddy.blogspot.com](http://www.sqlserverbuddy.blogspot.com/) |
| [Which recovery model is required for a replication in SQL Server ?](http://www.dotnetfunda.com/interview/exam3834-which-recovery-model-is-required-for-a-replication-in-sql-server.aspx" \o "Which recovery model is required for a replication in SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. Replication will work properly with any of the following recovery models:  Simple  Bulk-logged  Full.   2. Merge replication tracks change by storing information in metadata tables.   3. Transactional replication tracks changes by from the transaction log, So, it will not affected by the recovery model.   [www.sqlserverbuddy.blogspot.com](http://www.sqlserverbuddy.blogspot.com/) |
| [What are the advantages of using Stored procedure](http://www.dotnetfunda.com/interview/exam3839-what-are-the-advantages-of-using-stored-procedure.aspx" \o "What are the advantages of using Stored procedure) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  Stored procedure provides high security - All Grand and Revoke access can be given to the base table using stored procedures  Stored procedures avoid network traffic - Sql server prepares a cache of the sp and it avoid network traffic  Stored procedure provide performance - Every execution of sp will be take care by query analyser to prepare a layout before executing |
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| [Difference between char and varchar data types in Sql Server?](http://www.dotnetfunda.com/interview/exam3855-difference-between-char-and-varchar-data-types-in-sql-server.aspx" \o "Difference between char and varchar data types in Sql Server?) Posted by: [Sathya4260](http://www.dotnetfunda.com/profile/sathya4260.aspx)  Char:  1.Fixed length memory storage  2.CHAR takes up 1 byte per character  3.Use Char when the data entries in a column are expected to be the same size  5.Ex:  Declare test Char(100);  test="Test" -  Then "test" occupies 100 bytes first four bytes with values and rest with blank data.    VarChar:  1.Variable length memory storage(Changeable)  2.VARCHAR takes up 1 byte per character, + 2 bytes to hold length information  3.varchar when the data entries in a column are expected to vary considerably in size.  4.Ex:  Declare test VarChar(100);  test="Test" -  Then "test" occupies only 4+2=6 bytes. first four bytes for value and other two bytes for variable length information.   Conclusion:  1.When Using the fixed length data's in column like phone number, use Char  2.When using the variable length data's in column like address use VarChar |
| [Difference between Triggers and Stored procedures](http://www.dotnetfunda.com/interview/exam3859-difference-between-triggers-and-stored-procedures.aspx" \o "Difference between Triggers and Stored procedures) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  Both are database objects containing blocks lof code that can be used for implementing business logic   The differences are:   1)Triggers fire automatically but they need events for that.  (Example: create,alter,drop,insert,delete,update)  Procedures have to be explicitly called and then executed.  They do not need create,alter,drop,insert,delete,update.  we can also execute procedures automatically using the sp\_procoption.   2))we cannot pass parameters inside the triggers,  but we can pass parameters inside stored procedures  -------------------  example: if we want to display a message "error"   using a trigger: we need some DDL/DML Statement  using a procedure: NO DDL/DML is needed |
| [Whiach of these statements is not supported in Dynamic cursors?](http://www.dotnetfunda.com/interview/exam3868-whiach-of-these-statements-is-not-supported-in-dynamic-cursors.aspx" \o "Whiach of these statements is not supported in Dynamic cursors?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Can we reset the identity column?](http://www.dotnetfunda.com/interview/exam3869-can-we-reset-the-identity-column.aspx" \o "Can we reset the identity column?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  Yes, we can reset the identity column   use the **dbcc checkident** statement   example:  create table sales  (sno int identity(100,1),  sname varchar(10))   insert sales values('usb')  insert sales values('kbd')   select \* from sales   sno sname  100 usb will be the output.  101 kbd   Now run this command.   dbcc checkident('sales',reseed,50)  the seed value will be reset to 50 |
| [What are derived Tables?](http://www.dotnetfunda.com/interview/exam3870-what-are-derived-tables.aspx" \o "What are derived Tables?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  They are basically select statements in the from clause referred to by an  alias name.The alias name creates a table in the result set that can then be  referred to by some other Select statement   example:  2 tables emp and emp1 have got salary column. To calculate the maximun  salary from the salary columns of 2 tables   select max(salary) from (select salary from emp union select salary from emp1) a   a: is the derived table that will provide the input to the outer query |
| [Which of these statements cannot be written inside the block Begin tran Commit Tran](http://www.dotnetfunda.com/interview/exam3871-which-of-these-statements-cannot-be-written-inside-the-block-begin-tran.aspx" \o "Which of these statements cannot be written inside the block  Begin tran  Commit Tran) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is set\_quoted\_identifier?](http://www.dotnetfunda.com/interview/exam3872-what-is-setquotedidentifier.aspx" \o "What is set_quoted_identifier?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  It is a statement that allows us to use double quotes when namimg the objects   for example:  1)create table "demo"  (ono int)   2)create table "select"  (sno int)   These 2 statements will work only when  **set quoted\_identifier on**   if  **set quoted\_identifier off**   Both the statements will fail   set quoted\_identifier is on by default |
| [Difference between Identity column and Primary Key?](http://www.dotnetfunda.com/interview/exam3878-difference-between-identity-column-and-primary-key.aspx" \o "Difference between Identity column and Primary Key?) Posted by: [Sathya4260](http://www.dotnetfunda.com/profile/sathya4260.aspx)  Identity Column:  1.Identity column is auto incremented  2.Incremented numeric values only  3.Only one Identity column in table  4.All identity column is an primary Key  5.Values cannot be updated   Primary Key:  1.Primary Key value will be entered by the user.  2.Can be created more than one column (composite primary key).  3.All primary key is not an identity column.  4.Can be update the value  5.Can be refer by other table as a foreign key. |

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| [What are the different authentications in sql server](http://www.dotnetfunda.com/interview/exam3886-what-are-the-different-authentications-in-sql-server.aspx" \o "What are the different authentications in sql server) Posted by: [Karthikanbarasan](http://www.dotnetfunda.com/profile/karthikanbarasan.aspx)  Sql server have 2 different authentication  1) Windows Authentication  2) SQL Authentication   Windows authentication uses the windows credentials to authenticate the user and takes it to the server   SQL authentication uses sql user name and password to authenticate the user and its secure as well   Microsoft suggests to use windows authentication inorder to maintain a single authentication by maintaining in active directory |
| [What are computed Columns?](http://www.dotnetfunda.com/interview/exam3892-what-are-computed-columns.aspx" \o "What are computed Columns?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  Computed columns are the columns that can be used to store the calculated  results based upon some other columns of the table   create table emptable  (eno int primary key,  ename varchar(10),  basic float,  hra float,  pf float,  gross as basic+hra+pf)    --gross is the computed column.  insert emptable values(100,'king',5000.77,500,200)  ---------------------  select \* from emptable  --output--   eno ename basic hra pf gross   100 king 5000.77 500 200 5700.77    --we cannot insert or update in a computed column |
| [Difference between count(\*), count\_big(\*) and count(<some columnname>](http://www.dotnetfunda.com/interview/exam3893-difference-between-count-countbig-and-countsome-columnname.aspx" \o "Difference between count(*), count_big(*) and count(<some columnname>) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  count(\*): gives the total number of rows in a table   count\_big(\*): also gives the total number of rows in a table   difference: count(\*): returns int datatype value   count\_big(\*):returns bigint datatype value   count(<some columnname>: returns the total number of rows of a column   where the value of the column is **not null**   Consider this table emp   eno ename salary  100 dd 6000  200 ss 6500  400 ddd NULL   now run the query:   select count(\*), count\_big(\*), count(salary) from emp   output will be   3 : below the count(\*) column  3: below the count\_big(\*) column  2: below the count(salary)     **(no column name will be displayed  for any of the columns since no alias has been used)** |
| [Name the sql function that returns the sql object identification number?](http://www.dotnetfunda.com/interview/exam3946-name-the-sql-function-that-returns-the-sql-object-identification-number.aspx" \o "Name the sql function that returns the sql object identification number?) Posted by: [Madhu.b.rokkam](http://www.dotnetfunda.com/profile/madhu.b.rokkam.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Difference between HAVING and WHERE Clause](http://www.dotnetfunda.com/interview/exam4021-difference-between-having-and-where-clause.aspx" \o "Difference between HAVING and WHERE Clause) Posted by: [Sathya4260](http://www.dotnetfunda.com/profile/sathya4260.aspx)  Where Clause:  1.Where Clause can be used other than Select statement also  2.Where applies to each and single row  3.In where clause the data that fetched from memory according  to condition  4.Where is used before GROUP BY clause  Ex:Using Condition for the data in the memory.   Having Clause:  1.Having is used only with the SELECT statement.  2.Having applies to summarized rows (summarized with GROUP BY)  3.In having the completed data firstly fetched and then separated according to condition.  4.HAVING clause is used to impose condition on GROUP Function and is used after GROUP BY clause in the query  Ex: when using the avg function and then filter the data like ava(Sales)>0   Summary:  Having works like Where clause with out Group By Clause |
| [Difference Between Union and Union All](http://www.dotnetfunda.com/interview/exam4059-difference-between-union-and-union-all.aspx" \o "Difference Between Union and Union All) Posted by: [Sathya4260](http://www.dotnetfunda.com/profile/sathya4260.aspx)  Union:  1.UNION only selects distinct values  2.Output is in sorted order   UnionAll:  1.UNION ALL selects all values (including duplicates).  2.Output is not in sorted order   EX:   SELECT Col  FROM @Table1  UNION  SELECT Col  FROM @Table2  /\* Result of Union All operation \*/   SELECT Col  FROM @Table1  UNION ALL  SELECT Col  FROM @Table2  Output:  Union:  1  2  3  5   UnionAll:   1  2  3  2  5 |
| [What are all the SQL Server JOBs involved in LogShipping - SQL Server](http://www.dotnetfunda.com/interview/exam4066-what-are-all-the-sql-server-jobs-involved-in-logshipping-sql-server.aspx" \o "What are all the SQL Server JOBs involved in LogShipping - SQL Server) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  There are four JOBs involved in Log Shipping   1. Backup the Log on Primary Server Job  2. Copy the Log backup file to Secondary Server Job  3. Restoring the Log on Secondary Server Job  4. Notifying alerts for errors (If any) |
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| [Can we use order by clause when defining a view?](http://www.dotnetfunda.com/interview/exam4077-can-we-use-order-by-clause-when-defining-a-view.aspx" \o "Can we use order by clause when defining a view?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  Yes, we can use order by clause when defining a view.  **The condition is we have to include either TOP or FOR XML clauses also in the query**   example:   create view gt as select \* from emp order by ename  --Wrong   But   create view gt as select top 5 \* from emp order by ename  -- Correct |
| [What is the difference between Stored Procedure and Function?](http://www.dotnetfunda.com/interview/exam4096-what-is-the-difference-between-stored-procedure-and-function.aspx" \o "What is the difference between Stored Procedure and Function?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  There are few differences between Stored Procedure and Function that are  • Stored Procedures are stored in a compiled format into the database where as Functions are compiled at run time.   • The Stored Procedures can perform certain tasks in the database by using insert, delete, update and create commands but in function you can't use these commands.   • Normally the Stored procedures are used to process certain task but the Functions are used to compute the values that is we can pass some value as input and then it perform some task on the value and return output.   • Stored procedures can change in the server directly but Functions cannot change in the server directly.   • To run a Stored Procedure we have to use the Execute or Exec command where as Functions can run as an executable file.   • Stored Procedure can return multiple values where as Functions can return only single value.   • The Stored Procedures can be used directly in the program by using its commandtype but Functions can be used by using SQL Query.   • The Stored Procedures are having both IN and OUT parameter where as Functions are always having IN parameter, no OUT parameter is possible.   • Stored Procedures cannot be used as an inline with a select statement while Functions can.   • The temparary variable is required to hold the return value of a Stored Procedure but in Functions, the temporary variable is optional. |
| [Which of these must be there in the delete command?](http://www.dotnetfunda.com/interview/exam4145-which-of-these-must-be-there-in-the-delete-command.aspx" \o "Which of these must be there in the delete command?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How to insert a single row only in a table](http://www.dotnetfunda.com/interview/exam4179-how-to-insert-a-single-row-only-in-a-table.aspx" \o "How to insert a single row only in a table) Posted by: [V-rajbog](http://www.dotnetfunda.com/profile/v-rajbog.aspx)  using INSTEAD OF trigger, validates row counts of both original and INSERTED tables   CREATE TRIGGER trInsertEmployee ON Employee  INSTEAD OF INSERT  AS  BEGIN  IF EXISTS  (  SELECT \*  FROM dbo.Employee  )  BEGIN  PRINT 'Table contains one record.'  RETURN  END  ELSE  BEGIN  IF ( SELECT COUNT(\*) FROM INSERTED) > 1  BEGIN  PRINT 'Can not insert more than one record.'  RETURN  END  ELSE  BEGIN  INSERT INTO dbo.Employee(EmpID, EmpFullName, DeptID, GrossSalary)  SELECT TOP 1 EmpID, EmpFullName, DeptID, GrossSalary  FROM INSERTED  END  END  END |
| [Difference between local and global temporary tables:?](http://www.dotnetfunda.com/interview/exam4220-difference-between-local-and-global-temporary-tables.aspx" \o "Difference between local and global temporary tables:?) Posted by: [Ddd](http://www.dotnetfunda.com/profile/ddd.aspx)  local:  1) denoted by # symbol.  2) valid for the current connection only.  They are cleared as soon as the curent connection closes.  3)cannot be shared between multiple users.   global:  1)denoted by ## symbol.  2)Available to all the connections once created.  They are cleared when the last connection is closed.  3)can be shared betwen multiple users.   Both of then are stored in the **tempdb**database |
| [What are the steps you will take to improve performance of a poor performing query?](http://www.dotnetfunda.com/interview/exam4234-what-are-the-steps-you-will-take-to-improve-performance-of-a-poor-performin.aspx" \o "What are the steps you will take to improve performance of a poor performing query?) Posted by: [V-rajbog](http://www.dotnetfunda.com/profile/v-rajbog.aspx)  This is a very open ended question and there could be a lot of reasons behind the poor performance of a query. But some general issues that you could talk about would be: No indexes, table scans, missing or out of date statistics, blocking, excess recompilations of stored procedures, procedures and triggers without SET NOCOUNT ON, poorly written query with unnecessarily complicated joins, too much normalization, excess usage of cursors and temporary tables. Some of the tools/ways that help you troubleshooting performance problems are: SET SHOWPLAN\_ALL ON, SET SHOWPLAN\_TEXT ON, SET STATISTICS IO ON, SQL Server Profiler, Windows NT /2000 Performance monitor, Graphical execution plan in Query Analyzer. |
| [Can we use TOP with UPDATE and DELETE on partitioned views?](http://www.dotnetfunda.com/interview/exam4244-can-we-use-top-with-update-and-delete-on-partitioned-views.aspx" \o "Can we use TOP with UPDATE and DELETE on partitioned views?) Posted by: [Lokesh76](http://www.dotnetfunda.com/profile/lokesh76.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are SQL SERVER INTEGRATION SERVCIES(SSIS) ?](http://www.dotnetfunda.com/interview/exam4268-what-are-sql-server-integration-servciesssis.aspx" \o "What are SQL SERVER INTEGRATION SERVCIES(SSIS) ?) Posted by: [Siva.boggarapu](http://www.dotnetfunda.com/profile/siva.boggarapu.aspx)  1. Demonstrate or whiteboard how you would suggest using configuration files in packages. Would you consider it a best practice to create a configuration file for each connection manager or one for the entire package?   There should be a single configuration file for each connection manager in your packages that stores their connection string information. So if you have 6 connection managers then you have 6 config files. You can use the same config file across all your packages that use the same connections.  If you have a single config file that stores all your connection managers then all your packages must have contain the connection managers that are stored in that config file. This means you may have to put connection managers in your package that you don’t even need.   2. Demonstrate or whiteboard how checkpoints work in a package.  When checkpoints are enabled on a package if the package fails it will save the point at which the package fails. This way you can correct the problem then rerun from the point that it failed instead of rerunning the entire package. The obvious benefit to this is if you load a million record file just before the package fails you don’t have to load it again.   3. Demonstrate or whiteboard using a loop in a package so each file in a directory with the .txt extension is loaded into a table. Before demonstrating this tell which task/container accomplishes this and which enumerator will be used. (Big hint on which task/container to use is that it requires and enumerator)  This would require a Foreach Loop using the Foreach File Enumerator. Inside the Foreach Loop Editor you need to set a variable to store the directory of the files that will be looped through. Next select the connection manager used to load the files and add an expression to the connection string property that uses the variable created in the Foreach Loop.   4. Demonstrate or whiteboard how transactions work in a package.  If transactions are enabled on your package and tasks then when the package fails it will rollback everything that occurred during the package. First make sure MSDTC (Microsoft Distributed Transaction Coordinator) is enabled in the Control Panel -> Administrative Tools -> Component Services. Transactions must be enabled not only on the package level but also on each task you want included as part of the transaction. To have the entire package in a transaction set TransactionOption at the package level to Required and each task to Supported. |

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| [How to find SQL SERVER SCRIPTING DUPLICATES ?](http://www.dotnetfunda.com/interview/exam4270-how-to-find-sql-server-scripting-duplicates.aspx" \o "How to find SQL SERVER SCRIPTING DUPLICATES ?) Posted by: [Siva.boggarapu](http://www.dotnetfunda.com/profile/siva.boggarapu.aspx)  /\* Create Table with 7 entries - 3 are duplicate entries \*/  CREATE TABLE DuplicateRcordTable (Col1 INT, Col2 INT)  INSERT INTO DuplicateRcordTable  SELECT 1, 1  UNION ALL  SELECT 1, 1 --duplicate  UNION ALL  SELECT 1, 1 --duplicate  UNION ALL  SELECT 1, 2  UNION ALL  SELECT 1, 2 --duplicate  UNION ALL  SELECT 1, 3  UNION ALL  SELECT 1, 4  GO   /\* It should give you 7 rows \*/  SELECT \*  FROM DuplicateRcordTable  GO   /\* Delete Duplicate records \*/  WITH CTE (COl1,Col2, DuplicateCount)  AS  (  SELECT COl1,Col2,  ROW\_NUMBER() OVER(PARTITION BY COl1,Col2 ORDER BY Col1) AS DuplicateCount  FROM DuplicateRcordTable  )  DELETE  FROM CTE  WHERE DuplicateCount > 1  GO   /\* It should give you Distinct 4 records \*/  SELECT \*  FROM DuplicateRcordTable  GO |
| [what is Schemabinding View.](http://www.dotnetfunda.com/interview/exam4283-what-is-schemabinding-view.aspx" \o "what is Schemabinding View.) Posted by: [Manishsoni](http://www.dotnetfunda.com/profile/manishsoni.aspx)  Schemabinding View Restirct you to made any change in tables you used in your View.  Example:   Suppose I have an table Employee(EmpID,EmpName, DOJ,Managerid,DepartID)   Now am Creating a view   Create View EmployeeDetails  with Schemabinding  as  Select EmPid, EmpName,DOj,ManagerId,DepartID from Employee     after it just try to execute delete table and alter table and delete column of employee table.   Sql server will not allow to change table schema. Because you are having Schema dependency.First you need to delete View then only database will allow to modify table.    If you are using Normal View. Sytem will Allow you to delete or modify table but when you run your View next time it will display error. |
| [How many Foreign key can i have in my MS sql table ?](http://www.dotnetfunda.com/interview/exam4285-how-many-foreign-key-can-i-have-in-my-ms-sql-table.aspx" \o "How many Foreign key can i have in my MS sql table ?) Posted by: [Manishsoni](http://www.dotnetfunda.com/profile/manishsoni.aspx)  A Maximum of 253 Foreign Keys we can have in for a single table. |
| [How many tables can be used in a single SELECT statement ? Have you tested that ?](http://www.dotnetfunda.com/interview/exam4293-how-many-tables-can-be-used-in-a-single-select-statement-have-you-tested.aspx" \o "How many tables can be used in a single SELECT statement ? Have you tested that ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  It depends on Version   SQL Server 2005:  Maximum tables can be 256   SQL Server 2008:  Depends on resource availability   SQL Server 2008 R2:  Depends on resource availability   You can confirm by using script given below   **/\*Creating 300 Tables for testing\*/**  Use [Master]  Go  Declare @I Int, @Script Varchar(500)  Select @I = 1    While (@I <=300)  Begin  Select @Script = 'Create Table Table' + CAST(@I as varchar) + '(Id Int)'  Exec(@Script)  Select @I = @I + 1  End  Go  **/\*Using all the tables in SELECT statement\*/**   Use [Master]  Go  Declare @I Int, @Script Varchar(Max)  Select @I = 1  Select @Script = 'Select A1.\* From '    While (@I <=299)  Begin  if (@I >1)  Select @Script = @Script + ' Join Table' + CAST(@I+1 as varchar) + ' A' + CAST(@I+1 as varchar) + ' On (' + 'A' + CAST(@I+1 as varchar) + '.Id=' + ' A' + CAST(@I as varchar) + '.Id)'  else  Select @Script = @Script + 'Table' + CAST(@I as varchar) + ' A' + CAST(@I as varchar) + ' Join Table' + CAST(@I +1 as varchar) + ' A' + CAST(@I +1 as varchar) + ' On (' + 'A' + CAST(@I as varchar) + '.Id=' + ' A' + CAST(@I+1 as varchar) + '.Id)'    Select @I = @I + 1  End    EXEC(@Script)  Go  The script will confirm the limitation of using tables in a SELECT statement. |
| [In MSSQL What is ISNULL() function? how do we use it?](http://www.dotnetfunda.com/interview/exam4304-in-mssql-what-is-isnull-function-how-do-we-use-it.aspx" \o "In MSSQL What is ISNULL() function? how do we use it?) Posted by: [Tripati\_tutu](http://www.dotnetfunda.com/profile/tripati_tutu.aspx)  **ISNULL()**function is used to check the value is null or not in SQL Server. This  function also provides a way to replace a value with the null if the result is true.   Here @Param is a nullable parameter and isnull checks the parameter is a null value  or not. If it is a null, it replaces it with '' string.   ISNULL(@Param, '') |
| [For execution of DML statement in a view, view need to contain ?](http://www.dotnetfunda.com/interview/exam4316-for-execution-of-dml-statement-in-a-view-view-need-to-contain.aspx" \o "For execution of DML statement in a view, view need to contain ?) Posted by: [Mcadeepuraj](http://www.dotnetfunda.com/profile/mcadeepuraj.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [sql statement which returns all columns of table with no row(assuming that table has more than 3000 row).](http://www.dotnetfunda.com/interview/exam4317-sql-statement-which-returns-all-columns-of-table-with-no-rowassuming-that.aspx" \o "sql statement which returns all columns of table with no row(assuming that table has more than 3000 row).) Posted by: [Mcadeepuraj](http://www.dotnetfunda.com/profile/mcadeepuraj.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
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| [What does this return ? declare @adress varchar = 'India' select @adress](http://www.dotnetfunda.com/interview/exam4318-what-does-this-return-declare-adress-varchar-39india39-select.aspx" \o "What does this return ? declare @adress varchar = 'India'  select  @adress) Posted by: [Mcadeepuraj](http://www.dotnetfunda.com/profile/mcadeepuraj.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are Deterministic and Non deterministic Functions?](http://www.dotnetfunda.com/interview/exam4320-what-are-deterministic-and-non-deterministic-functions.aspx" \o "What are Deterministic and Non deterministic Functions?) Posted by: [Bhaskara](http://www.dotnetfunda.com/profile/bhaskara.aspx)  Deterministic functions always return the same result any time they are called with a specific set of input values and given the same state of the database. Non deterministic functions may return different results each time they are called with a specific set of input values even if the database state that they access remains the same.   Deterministic functions - SUM, AVG, DAY, ISNUMERIC, ISNULL, CONVERT  Non deterministic functions - GETDATE, RAND, @@ROWCOUNT. USER\_NAME, IDENTITY |
| [Can you set firing order in triggers and in instead of triggers?](http://www.dotnetfunda.com/interview/exam4321-can-you-set-firing-order-in-triggers-and-in-instead-of-triggers.aspx" \o "Can you set firing order in triggers and in instead of triggers?) Posted by: [Bhaskara](http://www.dotnetfunda.com/profile/bhaskara.aspx)  sp\_settriggerorder [triggername] first / last  example :   USE AdventureWorks2008R2;  GO  sp\_settriggerorder @triggername= 'Sales.uSalesOrderHeader', @order='First', @stmttype = 'UPDATE';  For instead of trigger we cannot be set the order. |
| [Can we alter the flow of the execution in SQL Server ?](http://www.dotnetfunda.com/interview/exam4325-can-we-alter-the-flow-of-the-execution-in-sql-server.aspx" \o "Can we alter the flow of the execution in SQL Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Yes. We can alter the flow of the execution of the statements using "GOTO" and "Lable name"   Using GOTO statement, we can skip the flow of the execution pointing to Label name.  Declare @Input Int, @Status Varchar(5), @Result Varchar(100)  Select @Input = 10  Select @Result = 'The Input(' + Cast(@Input as varchar(5)) + ') is '  If ((@Input%2) = 0)  Goto Even  Else  Goto Odd  Even:  Select @Status = '"Even"'  Goto Result  Odd:  Select @Status = '"Odd"'  Goto Result  Select @Status = '.....Test.....'  Result:  Select @Result = @Result + @Status  Select @Result  Goto Finish  Finish: |
| [Reverse string with out using in build function](http://www.dotnetfunda.com/interview/exam4342-reverse-string-with-out-using-in-build-function.aspx" \o "Reverse string with out using in build function) Posted by: [Mcadeepuraj](http://www.dotnetfunda.com/profile/mcadeepuraj.aspx)  DECLARE @t TABLE( ID INT IDENTITY, data VARCHAR(MAX))  INSERT INTO @t(data) SELECT 'Jacob'  INSERT INTO @t(data) SELECT 'Sebastian'    ;WITH cteReverseRecur as (  Select ID  , RIGHT( data, 1 ) as RevStr  , LEFT( data, LEN([data])-1 ) as RemStr  From @t  UNION ALL  Select ID  , RevStr + RIGHT( RemStr, 1 )  , Left( RemStr, LEN(RemStr)-1 )  From cteReverseRecur  Where RemStr > '')  SELECT ID, RevStr as data  From cteReverseRecur  Where RemStr = ''; |
| [What is the purpose of "sp\_resetstatus" system stored procedure ?](http://www.dotnetfunda.com/interview/exam4344-what-is-the-purpose-of-spresetstatus-system-stored-procedure.aspx" \o "What is the purpose of \"sp_resetstatus\" system stored procedure ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  This system stored procedure is used to reset the database status from SUSPECT to normal.   The following are the considerations :  1. You should be under 'sysadmin' server role.  2. Should not be under Transaction. It will throw an err as follows  *i.e: The procedure 'sp\_resetstatus' cannot be executed within a transaction.*  3. Database name should be valid and available  *i.e: The database '<DatabaseName>' does not exist. Supply a valid database name. To see available databases, use sys.databases*  4. The database should not be a snapshot. It should be a source database.  *i.e: Cannot run sp\_resetstatus against a database snapshot.*  5. The database should be already in SUSPECT mode.  *i.e: The suspect flag on the database "<DatabaseName>" is already reset.* |
| [What are all the ways to connecting Locally on the Server ?](http://www.dotnetfunda.com/interview/exam4364-what-are-all-the-ways-to-connecting-locally-on-the-server.aspx" \o "What are all the ways to connecting Locally on the Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Important: The Server and Client machine are the same machine   If the Server Name : SQLFunda  If the Instance Name : SQLBuddy   When we try to connect with the SQL Server from the Client, we can use either one of the ways...   1. Server Name\Instance Name  i.e: SQLFunda\SQLBuddy   (or)   2. (Local)\Instance Name  i.e: (Local)\SQLBuddy   (or)   3. Localhost\Instance Name  i.e: Localhost\SQLBuddy   (or)   4. .\Instance Name  i.e: .\SQLBuddy |
| [How to force the protocol(NamedPipe or TCP/IP) connection when connect locally on Server ?](http://www.dotnetfunda.com/interview/exam4365-how-to-force-the-protocolnamedpipe-or-tcpip-connection-when-connect-loca.aspx" \o "How to force the protocol(NamedPipe or TCP/IP) connection when connect locally on Server ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Normally, when we try to connect the Server from locally, It will connect with Shared Memory protocol.   If the Server Name : SQLFunda  If the Instance Name : SQLBuddy   But, we can force the connection either Named Pipe or TCP/IP   Forcing TCP/IP:  i.e: tcp:SQLFunda\SQLBuddy   Forcing NamedPipe:  i.e: np:SQLFunda\SQLBuddy   Once connected. we can verify that what kind of connection made ?  select s.session\_id [Session ID],  e.Name [Protocol Used]  from sys.dm\_exec\_sessions s join sys.endpoints e  on (s.endpoint\_id = e.endpoint\_id) |

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| [In SQL Server, between Windows Authentication and SQL Server Authentication, which one is trusted and which one is untrusted?](http://www.dotnetfunda.com/interview/exam4368-in-sql-server-between-windows-authentication-and-sql-server-authentication.aspx" \o "In SQL Server, between Windows Authentication and SQL Server Authentication, which one is trusted and which one is untrusted?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  **Windows Authentication is trusted** because the user name and password are checked with the Active Directory, the **SQL Server authentication is untrusted** , since SQL Server is the only verifier participating in the transaction.   Thanks and Regards  Akiii |
| [Once we switched from SIMPLE Recovery model to FULL or BULK\_LOGGED recovery model, what are all the recommendations ?](http://www.dotnetfunda.com/interview/exam4371-once-we-switched-from-simple-recovery-model-to-full-or-bulklogged-recovery.aspx" \o "Once we switched from SIMPLE Recovery model to FULL or BULK_LOGGED recovery model, what are all the recommendations ?) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  1. After switched from SIMPLE recovery model to FULL or BULK\_LOGGED recovery model, We should take the Data backup either FULL or DIFFERENTIAL backup, then only the LSN resets and Log chain starts..   2. Transaction Log backup should be scheduled, then only the committed transactions will be removed from the transaction log otherwise the Log grows and grows....... till reaches the physical free space. |
| [Difference between Composite , Candidate and alternate keys ?](http://www.dotnetfunda.com/interview/exam4376-difference-between-composite-candidate-and-alternate-keys.aspx" \o "Difference between Composite , Candidate and alternate keys ?) Posted by: [Sksingh](http://www.dotnetfunda.com/profile/sksingh.aspx)  **Composite Key :**  A composite key is a combination of more than one column to identify a unique row in a table.  **Exp** : EmpID, EmailID, SSN in Employee table and project ID in project table .  if EmpID and project id are put in projectionHours table then combination of empid and project ID called as composite key because combination of these two act as primary key in projectionHours table.   **Candidate Key:**  All keys in a table that become unique called as candidate key.  **Exp**: EmpID , EmailID and SSN all will be always unique for any employee in that case all these three columns called as candidate keys.   **Alternate Key:**  Among of candidate keys if any single key or combination of keys made as primary key then rest candidate key called as alternate key.  **Exp**: Suppose in employee table EmpID is primary key then Emailid and SSN are called as alternate key mean later on these key can be act as primary key without affecting existing data in table. |
| [Delete duplicate rows on table with/without primary key in Sql Server 2005](http://www.dotnetfunda.com/interview/exam4381-delete-duplicate-rows-on-table-withwithout-primary-key-in-sql-server-2005.aspx" \o "Delete duplicate rows on table with/without primary key in Sql Server 2005) Posted by: [Sksingh](http://www.dotnetfunda.com/profile/sksingh.aspx)  Here below query that have multiple repeated records, my aim to delete duplicate records and keep one record for each unique row.   select \* from employee    insert into employee(empid,empname,salary)  select 1,'A',20000 union all  select 1,'A',20000 union all  select 1,'A',20000 union all  select 1,'A',20000 union all  select 2,'B',20000 union all  select 1,'C',20000 union all  select 2,'B',40000    -- delete duplicate records based on name  set rowcount 1  delete from employee where ( select count(\*) from employee ee where employee.Empname = ee.Empname) > 1    while (@@rowcount > 0)  begin  delete from employee where ( select count(\*) from employee ee where employee.Empname = ee.Empname) > 1  end    set rowcount 0  **Output :**  1 A 20000  1 C 20000  2 B 40000 |
| [Which character is said to be WildCard Character in SQL ?](http://www.dotnetfunda.com/interview/exam4410-which-character-is-said-to-be-wildcard-character-in-sql.aspx" \o "Which character is said to be WildCard Character in SQL ?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  Let assume we want a query which returns all the employee names starting with Ra then in SQL we generally use   Select FirstName from Employee where FirstName LIKE 'Ra%'  here that % is said to be the Wild card character. |
| [When we are transferring records from one database to another database so now if we use SqlBulkCopy class to transfer the records then which scenario we need to handle ?](http://www.dotnetfunda.com/interview/exam4411-when-we-are-transferring-records-from-one-database-to-another-database-so-n.aspx" \o "When we are transferring records from one database to another database so now if we use SqlBulkCopy class to transfer the records then which scenario we need to handle ?) Posted by: [Chvrsri](http://www.dotnetfunda.com/profile/chvrsri.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What are CRUD operations in database?](http://www.dotnetfunda.com/interview/exam4420-what-are-crud-operations-in-database.aspx" \o "What are CRUD operations in database?) Posted by: [Nithadeepak](http://www.dotnetfunda.com/profile/nithadeepak.aspx)  The term CRUD stands for Create, Read, Update, and Delete.   Each letter in the acronym corresponds to each database operations.   C-Create :- corresponds to INSERT statement in sql  R-Read :- corresponds to SELECT statement in sql  U-Update:- corresponds to UPDATE statement in sql  D-Delete :- corresponds to DELETE statement in sql   Ref:<http://www.dotnetspider.com/Database-Tutorial-128.aspx> |
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| [Do stored procedures perform better than SQL queries (or embedded SQL)?](http://www.dotnetfunda.com/interview/exam4459-do-stored-procedures-perform-better-than-sql-queries-or-embedded-sql.aspx" \o "Do stored procedures perform better than SQL queries (or embedded SQL)?) Posted by: [Vishvvas](http://www.dotnetfunda.com/profile/vishvvas.aspx)  Its a myth that the stored procedure perform better than SQL queries. Definitely, it was a fact versions before SQL 7.0 where in stored procedures were a way to partially precompile an execution plan in SQL Server version 6.5 and earlier. Such partially compiled execution plan created at the the time the stored procedure was created, were stored in a system table. Please see the article for more details.  http://msdn.microsoft.com/en-us/library/aa174792(v=sql.80).aspx   Important anecdote from this article is as follows  "SQL Server 2000 and SQL Server version 7.0 incorporate a number of changes to statement processing that extend many of the performance benefits of stored procedures to all SQL statements. SQL Server 2000 and SQL Server 7.0 do not save a partially compiled plan for stored procedures when they are created." |
| [How many types of indexes are available in SQL Server?](http://www.dotnetfunda.com/interview/exam4474-how-many-types-of-indexes-are-available-in-sql-server.aspx" \o "How many types of indexes are available in SQL Server?) Posted by: [Rajusingh](http://www.dotnetfunda.com/profile/rajusingh.aspx)  There are four type's of index's available in Sql Server.   Cluster : We can create only index in Table. When we create primary key then cluster index create automatically.   Non Cluster: we can create 256 non cluster index in table but should be crate 3 index in table because effect on performance. when create unique key then non cluster index create automatically.   Unique: We can create unique index too.   Composite Key: when we create index with two columns together then composite key index create. like class name and roll no create one index. |
| [In SQL Server Database, what is the basic difference between a table scan and an index scan ?](http://www.dotnetfunda.com/interview/exam4495-in-sql-server-database-what-is-the-basic-difference-between-a-table-scan-a.aspx" \o "In SQL Server Database, what is the basic difference between a table scan and an index scan ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  **Table Scan** --- Here, row by row scanning is done to get the data. In case, there are huge number of data in a table, it becomes an overhead.   **Index Scan** --- Here in the first, index is created in the table. It then uses the index to get to the data that you wanted. It increases the performance. |
| [What is BCP ?](http://www.dotnetfunda.com/interview/exam4554-what-is-bcp.aspx" \o "What is BCP ?) Posted by: [Rahulshukla](http://www.dotnetfunda.com/profile/rahulshukla.aspx)  BCP is stand for Bulk copy Program in sql server, bulk copy is a tool used to copy huge amount of data from tables and views. BCP does not copy the structure same as source to destination. |
| [What is MERGE statement?](http://www.dotnetfunda.com/interview/exam4558-what-is-merge-statement.aspx" \o "What is MERGE statement?) Posted by: [Rahulshukla](http://www.dotnetfunda.com/profile/rahulshukla.aspx)  MERGE is new feature in **SQL Server 2008** that provide an efficient way to perform multiple operations. In previous version we had to write separate statement to INSERT,DELETE and UPDATE data based on certain conditions, but now using MERGE statement we can include the logic of such data modification in one statement that even checks when the data matched then just update it and when unmatched then insert it. most important advantage of MERGE statement is all the data is read and processed only once. |
| [Write a sql query which will give result of the city name of the employee whose avg salary > 2000](http://www.dotnetfunda.com/interview/exam4585-write-a-sql-query-which-will-give-result-of-the-city-name-of-the-employee-w.aspx" \o "Write a sql query which will give result of the city name of the employee whose avg salary > 2000) Posted by: [Kamlesh420](http://www.dotnetfunda.com/profile/kamlesh420.aspx)  select cityname, avg(salary) as avgsal from Employee group by cityname having avg(salary) >2000 |
| [Find and Delete duplicate records in a table](http://www.dotnetfunda.com/interview/exam4586-find-and-delete-duplicate-records-in-a-table.aspx" \o "Find and Delete duplicate records in a table) Posted by: [Kamlesh420](http://www.dotnetfunda.com/profile/kamlesh420.aspx)  Many times you can face problem of duplicate records in table.So How would you identify and delete duplicate records in a table?  For that Firstly check if table has duplicate records or not using below query.   SELECT [FirstName] FROM tblTest GROUP BY [FirstName] HAVING COUNT(\*) > 1  Then Delete duplicate records.  DELETE FROM tblTest WHERE ID NOT IN (SELECT MAX(ID) FROM tblTest GROUP BY [FirstName]) |
| [A stored procedure can be called from a trigger, another stored procedure or even from a client applications. Are all the above statements correct ?](http://www.dotnetfunda.com/interview/exam4618-a-stored-procedure-can-be-called-from-a-trigger-another-stored-procedure-o.aspx" \o "A stored procedure can be called from a trigger, another stored procedure or even from a client applications. Are all the above statements correct ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |

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| [Difference between Primary Key and unique key ?](http://www.dotnetfunda.com/interview/exam4650-difference-between-primary-key-and-unique-key.aspx" \o "Difference between Primary Key and unique key ?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  Primary Key Restrict duplicate values and null values each table can have only one primary key,default clustered index is the primary key.   unique key restrict duplicate values and allow only one null value. default non clustered index is an unique key |
| [Write a script to identify, Each character's count in a given string ? (Without using Loop) i.e: Pandian](http://www.dotnetfunda.com/interview/exam4695-write-a-script-to-identify-each-character39s-count-in-a-given-string.aspx" \o "Write a script to identify, Each character's count in a given string ? (Without using Loop) i.e: Pandian) Posted by: [PandianS](http://www.dotnetfunda.com/profile/pandians.aspx)  Declare @String Varchar(100)  Select @String = 'Pandian'  ;With CTEs  As  (  Select LEFT(@String,0) Chars,0 [String]  Union All  Select Substring(@String,[String]+1,1) Chars,[String]+1 From CTEs Where [String] <=LEN(@String)  )  Select Chars [Letter], COUNT(1) [Repeats] from CTEs Where Chars <>'' Group by Chars  Go  Result:  Letter Repeats  ------ ------  a 2  d 1  i 1  n 2  P 1 |
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| [What is the difference between DELETE and TRUNCATE in SQL ?](http://www.dotnetfunda.com/interview/exam4705-what-is-the-difference-between-delete-and-truncate-in-sql.aspx" \o "What is the difference between DELETE and TRUNCATE in SQL ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Using TRUNCATE, we cannot restore the deleted data.   Syntax:   TRUNCATE TABLE table\_name;  Example:   To delete all the rows from employee table, the query would be like,   TRUNCATE TABLE employee;  Unlike using DELETE, we can restore the data, as the physical data will not get deleted.   Syntax:   DELETE FROM table\_name [WHERE condition];  Example:   To delete an employee with id 100 from the employee table, the sql delete query would be like,   DELETE FROM employee WHERE id = 100; |
| [What is CTE in Sql server 2005 ?](http://www.dotnetfunda.com/interview/exam4714-what-is-cte-in-sql-server-2005.aspx" \o "What is CTE in Sql server 2005 ?) Posted by: [Rajkatie](http://www.dotnetfunda.com/profile/rajkatie.aspx)  A common table expression (CTE) can be thought of as a temporary result set that you can reference within a SELECT, INSERT, UPDATE, or DELETE statement. It is similar to a derived table. Unlike a derived table, a CTE can be self-referencing, not stored as object and can be referenced multiple times in the same query.   It can be recursive and non-recursive.   It provides the significant advantage of being able to reference itself because earlier version sql server, a recursive query usually requires using temporary tables, cursors, and logic to control the flow of the recursive step.   CTEs can be defined in user-defined routines, such as functions, stored procedures, triggers, or views. |
| [What is magic table in Sql server ?](http://www.dotnetfunda.com/interview/exam4715-what-is-magic-table-in-sql-server.aspx" \o "What is magic table in Sql server ?) Posted by: [Rajkatie](http://www.dotnetfunda.com/profile/rajkatie.aspx)  Sql Server automatically creates and manages two temporary, memory-resident tables (deleted and inserted tables) which are popularly known as magic tables.   Usually used with the DML triggers. Can not directly modify the data in the tables or perform ddl operation.   Primarily used to perform certain action like   1) Extend referential integrity between tables  2) Test for errors and take action based on the error.  3) Find the difference between the state of a table before and after data modification and take actions based on that difference. |
| [What is the use of UPDATE\_STATISTICS command ?](http://www.dotnetfunda.com/interview/exam4817-what-is-the-use-of-updatestatistics-command.aspx" \o "What is the use of UPDATE_STATISTICS command ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  UPDATE\_STATISTICS updates the indexes on the tables accordingly.  If there occurs any large amount of modifications such as, large amount of deletions,modifications or Bulk copy into the tables has occurred,then this command has to update the indexes to take these changes into account. |
| [What is SQL Profiler ?](http://www.dotnetfunda.com/interview/exam4819-what-is-sql-profiler.aspx" \o "What is SQL Profiler ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  SQL Profiler is a graphical tool that allows system administrators to monitor events in an instance of Microsoft SQL Server.  You can capture and save data about each event to a file or SQL Server table to analyze later.  You can use SQL Profiler to monitor only the events in which you are interested.  For example, you can monitor a production environment to see which stored procedures are hampering performances by executing too slowly. |
| [What is SQL Server Agent ?](http://www.dotnetfunda.com/interview/exam4820-what-is-sql-server-agent.aspx" \o "What is SQL Server Agent ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  It plays an important role in the tasks of Database Administrator(DBA).  Its purpose is to ease the implementation of tasks for the DBA.  Using its full- function scheduling engine, you can schedule your own jobs and scripts. |
| [Give 3 ways to get an accurate count of the number of records in a table ?](http://www.dotnetfunda.com/interview/exam4821-give-3-ways-to-get-an-accurate-count-of-the-number-of-records-in-a-table.aspx" \o "Give 3 ways to get an accurate count of the number of records in a table ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The 3 ways to get an accurate count of the number of records in a table are as below:   1) SELECT \* FROM table1   2) SELECT COUNT(\*) FROM table1   3) SELECT rows FROM sysindexes WHERE id = OBJECT\_ID(table1) AND indid < 2 |
| [How many XML indexes possible in Sql Server?](http://www.dotnetfunda.com/interview/exam4845-how-many-xml-indexes-possible-in-sql-server.aspx" \o "How many XML indexes possible in Sql Server?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |

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| [What is join? How many types of joins?](http://www.dotnetfunda.com/interview/exam4864-what-is-join-how-many-types-of-joins.aspx" \o "What is join? How many types of joins?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Joins are used to extract data from multiples tables on specified some conditions.   Joins are INNER JOIN, LEFT OUTER JOIN, RIGHT OUTER JOIN, SELF JOIN.   **INNER JOIN:**extract only matched data from two tables.   **LEFT OUTER JOIN:** extract all data from left table and matched data from right table, having null against unmatched records.   **RIGHT OUTER JOIN:** extract all data from right table and matched data from left table, having null against unmatched records.   **SELF JOIN:**exctract data from one table by creating two alias of a table on specified some condition.   Even there are more joins like cross join, non-equi joins but they are in less use.   For beginners link: <http://www.w3schools.com/sql/sql_join.asp> |
| [Difference between procedure and user defined function.](http://www.dotnetfunda.com/interview/exam4865-difference-between-procedure-and-user-defined-function.aspx" \o "Difference between procedure and user defined function.) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  1) A procedure is a precompiled and function is not pre-compiled.  2) procedure may or may not return a value where as function must return a value.  3) procedure can return multiple values and function can not return multiple values.  4) you can use function in select, where or in case statement but procedures can not be used.  5) function can not call procedures inside it. |
| [What is linked server?](http://www.dotnetfunda.com/interview/exam4878-what-is-linked-server.aspx" \o "What is linked server?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  One sql server is added to another sql server, this concept is called linked server. Linked server is used to extract query from different sql server.   Example:   select tab1.\* from dbserver1.db1.dbo.table1 tab1,  dbserver1.db2.dbo.table2 tab2  where tab1.id=tab2.id |
| [What is view?](http://www.dotnetfunda.com/interview/exam4879-what-is-view.aspx" \o "What is view?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  View is like a table. It does not exist in physical memory. It can be called as a subset of tables. View can be applied more than one table also.Using view, you can update/delete in table on which view is created. |
| [Types of 'tables' SQL Server..?](http://www.dotnetfunda.com/interview/exam4880-types-of-39tables39-sql-server.aspx" \o "Types of 'tables' SQL Server..?) Posted by: [Sakthi.Singaravel](http://www.dotnetfunda.com/profile/sakthi.singaravel.aspx)  SQL Server provides the following types of tables that serve special purposes in a database:   -Partitioned tables  -Temporary tables  -System tables  -Wide tables  **Partitioned tables:**  Partitioned tables are tables whose data is horizontally divided into units which may be spread across more than one file group in a database.   **Temporary tables:**  Temporary tables are divided into two types,  -Local (Its visible only to their creators)  -Global (visible to any user and any connection)   **System tables:**  The configuration of the server and all its tables in a special set of tables known as system tables.   **Wide tables:**  A wide table is a table with a column set.  -Wide tables can define up to 30,000 columns.  -Applications can dynamically add and remove columns from wide tables.  -When data is added and removed from a wide table, performance can be affected. |
| [Maximum no., of columns in Wide Table..?](http://www.dotnetfunda.com/interview/exam4881-maximum-no-of-columns-in-wide-table.aspx" \o "Maximum no., of columns in Wide Table..?) Posted by: [Sakthi.Singaravel](http://www.dotnetfunda.com/profile/sakthi.singaravel.aspx)  **Answer:**  Wide tables can define up to 30,000 columns. This increases the cost to maintain indexes on the table. Nonclustered indexes that are defined should be filtered indexes that are applied to data subsets. |
| [Which SQL statement is used to extract data from a database?](http://www.dotnetfunda.com/interview/exam4908-which-sql-statement-is-used-to-extract-data-from-a-database.aspx" \o "Which SQL statement is used to extract data from a database?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
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| [Is NULL value treated as a blank or 0.????](http://www.dotnetfunda.com/interview/exam4909-is-null-value-treated-as-a-blank-or-0.aspx" \o "Is NULL value treated as a blank or 0.????) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NO Null is NOT Treated as Zero.  Because,NULL is not the number zero and also Null is not the empty string value.  So,A NULL value is treated as a blank |
| [Columns per foreign key in SQL Server 2000](http://www.dotnetfunda.com/interview/exam4911-columns-per-foreign-key-in-sql-server-2000.aspx" \o "Columns per foreign key in SQL Server 2000) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How many Nested Queries possible in sql?](http://www.dotnetfunda.com/interview/exam4912-how-many-nested-queries-possible-in-sql.aspx" \o "How many Nested Queries possible in sql?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Maximun Bytes per GROUP BY numbers SQL Server](http://www.dotnetfunda.com/interview/exam4937-maximun-bytes-per-group-by-numbers-sql-server.aspx" \o "Maximun Bytes per GROUP BY numbers SQL Server) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Maximun Bytes per ORDER BY in Sql?](http://www.dotnetfunda.com/interview/exam4938-maximun-bytes-per-order-by-in-sql.aspx" \o "Maximun Bytes per  ORDER BY in Sql?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the Database size of SQL Server Database Engine object?](http://www.dotnetfunda.com/interview/exam4939-what-is-the-database-size-of-sql-server-database-engine-object.aspx" \o "What is the Database size of SQL Server Database Engine object?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How Many User connections Possible in SQL Server Database Engine object?](http://www.dotnetfunda.com/interview/exam4940-how-many-user-connections-possible-in-sql-server-database-engine-object.aspx" \o "How Many User connections Possible in SQL Server Database Engine object?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the syntax to create a table?](http://www.dotnetfunda.com/interview/exam4949-what-is-the-syntax-to-create-a-table.aspx" \o "What is the syntax to create a table?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  create table tabName  (column1 number(5) primary key,  column2 varchar2,  column3 varchar2 default = 'Value'); |

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| [What is join? How many types of joins?](http://www.dotnetfunda.com/interview/exam4864-what-is-join-how-many-types-of-joins.aspx" \o "What is join? How many types of joins?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Joins are used to extract data from multiples tables on specified some conditions.   Joins are INNER JOIN, LEFT OUTER JOIN, RIGHT OUTER JOIN, SELF JOIN.   **INNER JOIN:**extract only matched data from two tables.   **LEFT OUTER JOIN:** extract all data from left table and matched data from right table, having null against unmatched records.   **RIGHT OUTER JOIN:** extract all data from right table and matched data from left table, having null against unmatched records.   **SELF JOIN:**exctract data from one table by creating two alias of a table on specified some condition.   Even there are more joins like cross join, non-equi joins but they are in less use.   For beginners link: <http://www.w3schools.com/sql/sql_join.asp> |
| [Difference between procedure and user defined function.](http://www.dotnetfunda.com/interview/exam4865-difference-between-procedure-and-user-defined-function.aspx" \o "Difference between procedure and user defined function.) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  1) A procedure is a precompiled and function is not pre-compiled.  2) procedure may or may not return a value where as function must return a value.  3) procedure can return multiple values and function can not return multiple values.  4) you can use function in select, where or in case statement but procedures can not be used.  5) function can not call procedures inside it. |
| [What is linked server?](http://www.dotnetfunda.com/interview/exam4878-what-is-linked-server.aspx" \o "What is linked server?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  One sql server is added to another sql server, this concept is called linked server. Linked server is used to extract query from different sql server.   Example:   select tab1.\* from dbserver1.db1.dbo.table1 tab1,  dbserver1.db2.dbo.table2 tab2  where tab1.id=tab2.id |
| [What is view?](http://www.dotnetfunda.com/interview/exam4879-what-is-view.aspx" \o "What is view?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  View is like a table. It does not exist in physical memory. It can be called as a subset of tables. View can be applied more than one table also.Using view, you can update/delete in table on which view is created. |
| [Types of 'tables' SQL Server..?](http://www.dotnetfunda.com/interview/exam4880-types-of-39tables39-sql-server.aspx" \o "Types of 'tables' SQL Server..?) Posted by: [Sakthi.Singaravel](http://www.dotnetfunda.com/profile/sakthi.singaravel.aspx)  SQL Server provides the following types of tables that serve special purposes in a database:   -Partitioned tables  -Temporary tables  -System tables  -Wide tables  **Partitioned tables:**  Partitioned tables are tables whose data is horizontally divided into units which may be spread across more than one file group in a database.   **Temporary tables:**  Temporary tables are divided into two types,  -Local (Its visible only to their creators)  -Global (visible to any user and any connection)   **System tables:**  The configuration of the server and all its tables in a special set of tables known as system tables.   **Wide tables:**  A wide table is a table with a column set.  -Wide tables can define up to 30,000 columns.  -Applications can dynamically add and remove columns from wide tables.  -When data is added and removed from a wide table, performance can be affected. |
| [Maximum no., of columns in Wide Table..?](http://www.dotnetfunda.com/interview/exam4881-maximum-no-of-columns-in-wide-table.aspx" \o "Maximum no., of columns in Wide Table..?) Posted by: [Sakthi.Singaravel](http://www.dotnetfunda.com/profile/sakthi.singaravel.aspx)  **Answer:**  Wide tables can define up to 30,000 columns. This increases the cost to maintain indexes on the table. Nonclustered indexes that are defined should be filtered indexes that are applied to data subsets. |
| [Which SQL statement is used to extract data from a database?](http://www.dotnetfunda.com/interview/exam4908-which-sql-statement-is-used-to-extract-data-from-a-database.aspx" \o "Which SQL statement is used to extract data from a database?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
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| [Is NULL value treated as a blank or 0.????](http://www.dotnetfunda.com/interview/exam4909-is-null-value-treated-as-a-blank-or-0.aspx" \o "Is NULL value treated as a blank or 0.????) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NO Null is NOT Treated as Zero.  Because,NULL is not the number zero and also Null is not the empty string value.  So,A NULL value is treated as a blank |
| [Columns per foreign key in SQL Server 2000](http://www.dotnetfunda.com/interview/exam4911-columns-per-foreign-key-in-sql-server-2000.aspx" \o "Columns per foreign key in SQL Server 2000) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How many Nested Queries possible in sql?](http://www.dotnetfunda.com/interview/exam4912-how-many-nested-queries-possible-in-sql.aspx" \o "How many Nested Queries possible in sql?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Maximun Bytes per GROUP BY numbers SQL Server](http://www.dotnetfunda.com/interview/exam4937-maximun-bytes-per-group-by-numbers-sql-server.aspx" \o "Maximun Bytes per GROUP BY numbers SQL Server) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Maximun Bytes per ORDER BY in Sql?](http://www.dotnetfunda.com/interview/exam4938-maximun-bytes-per-order-by-in-sql.aspx" \o "Maximun Bytes per  ORDER BY in Sql?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the Database size of SQL Server Database Engine object?](http://www.dotnetfunda.com/interview/exam4939-what-is-the-database-size-of-sql-server-database-engine-object.aspx" \o "What is the Database size of SQL Server Database Engine object?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How Many User connections Possible in SQL Server Database Engine object?](http://www.dotnetfunda.com/interview/exam4940-how-many-user-connections-possible-in-sql-server-database-engine-object.aspx" \o "How Many User connections Possible in SQL Server Database Engine object?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the syntax to create a table?](http://www.dotnetfunda.com/interview/exam4949-what-is-the-syntax-to-create-a-table.aspx" \o "What is the syntax to create a table?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  create table tabName  (column1 number(5) primary key,  column2 varchar2,  column3 varchar2 default = 'Value'); |

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| [What is syntax to execute a stored procedure?](http://www.dotnetfunda.com/interview/exam4950-what-is-syntax-to-execute-a-stored-procedure.aspx" \o "What is syntax to execute a stored procedure?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  using following syntax...   Example: There is a stored procedure named "sp\_name" and having two input parameters of string type.   Execute sp\_name 'param1', 'param2'; |
| [Syantax to create a stored procedure.](http://www.dotnetfunda.com/interview/exam4951-syantax-to-create-a-stored-procedure.aspx" \o "Syantax to create a stored procedure.) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Create a stored procedure using following lines of code.   Create or Replace Procedure sp\_proc\_name  (param1 varchar2(20), param2 varchar2(20))  as  begin  select \* from tableName  end; |
| [What is Coalesce?](http://www.dotnetfunda.com/interview/exam4952-what-is-coalesce.aspx" \o "What is Coalesce?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Coalesce is a function tat returns first non-null value within the given list of values.   Example:   select param1, param2, Coalesce(param1\*param2) from tableName;  It will receive only non-null value from param1 and param2 |
| [Is it possible to write more than 2 sql statements in a stored procedure like select \* from tablename select \* from tablename select \* from Tablename](http://www.dotnetfunda.com/interview/exam4965-is-it-possible-to-write-more-than-2-sql-statements-in-a-stored-procedure-li.aspx" \o "Is it possible to write more than 2 sql statements in a stored procedure like  select * from tablename select * from tablename select * from Tablename) Posted by: [Kk86kiran](http://www.dotnetfunda.com/profile/kk86kiran.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the difference between primary key and unique key?](http://www.dotnetfunda.com/interview/exam4968-what-is-the-difference-between-primary-key-and-unique-key.aspx" \o "What is the difference between primary key and unique key?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  **Difference between Primary Key and Unique Key**   1) Primary key creates a clustered index on column whereas unique key creates a non-clustered index on column.   2) NULL is not allow in case of primary key but in unique key one null is allowed. |
| [Unique key can have two null values?](http://www.dotnetfunda.com/interview/exam4969-unique-key-can-have-two-null-values.aspx" \o "Unique key can have two null values?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  No, unique key can have only one null value because unique key enforces uniqueness of the column. So column can not have more than one NULL value. |
| [What is check constraint?](http://www.dotnetfunda.com/interview/exam4970-what-is-check-constraint.aspx" \o "What is check constraint?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  It is used to enforce domain integrity. Check constraints are used to limit the values of a column.   Example:   CREATE ABLE tblTest  (  ID INT NOT NULL,  NAME VARCHAR(20),  CITY VARCHAR(20),  CONSTRAINT chk\_Test CHECK (ID>0 AND CITY='DEHI')  ) |
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| [How to drop a constraint?](http://www.dotnetfunda.com/interview/exam4971-how-to-drop-a-constraint.aspx" \o "How to drop a constraint?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  using following line of code:   ALTER TABLE <tablename>  DROP CONSTRAINT <constrain name>    Example: There is a table named tblTest and having a constraint "test\_Constraint'    ALTER TABLE tblTest  DROP CONSTRAINT test\_Constraint |
| [How to create a local temporary able?](http://www.dotnetfunda.com/interview/exam4972-how-to-create-a-local-temporary-able.aspx" \o "How to create a local temporary able?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Using # with table name, we can create a local temporary table.   CREATE TABLE #tempTable  (  id INT,  name VARCHAR(50)  ) |
| [How can we create a global temporary table?](http://www.dotnetfunda.com/interview/exam4973-how-can-we-create-a-global-temporary-table.aspx" \o "How can we create a global temporary table?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Using ## with table name, we can create a global temporary table.   CREATE TABLE ##globalTempTable  (  id INT,  name VARCHAR(50)  ) |
| [What is limiation of #TEMP table?](http://www.dotnetfunda.com/interview/exam4974-what-is-limiation-of-temp-table.aspx" \o "What is limiation of #TEMP table?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  You can give table name upto 116 characters only including # sign.   Create table #<more than 116 characters table name>  (  ID int,  NAME varchar(50)  )  You will get the following error.   Error: "The object or column name starting with '#<long string here>' is too long. The maximum length is 116 characters." |
| [How a procedure can be encrypted?](http://www.dotnetfunda.com/interview/exam4975-how-a-procedure-can-be-encrypted.aspx" \o "How a procedure can be encrypted?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  A procedure can be encrypted using **WITH ENCRYPTION**   CREATE PROCEDURE SP\_TESTPROC  WITH ENCRYPTION  AS  BEGIN  SELECT \* FROM TABLE\_NAME  END  Use of encrypting a stored procedure is to secure your procedure code, if you want to deploy your procedure at client server, encrypt it so that no one can read your procedure code, it is just similar as wrapped a procedure in oracle.   It is not advisable to encrypt a stored procedure because there is no way to decrypt your procedure, it is one way call only.   If your requirement to encrypt a procedure then keep your source code copy of procedure at some location for further use. |
| [How Many Parameters per stored procedure in Sql Server?](http://www.dotnetfunda.com/interview/exam4987-how-many-parameters-per-stored-procedure-in-sql-server.aspx" \o "How Many Parameters per stored procedure in Sql Server?) Posted by: [Sabarimahesh](http://www.dotnetfunda.com/profile/sabarimahesh.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is the full form of SQL?](http://www.dotnetfunda.com/interview/exam4991-what-is-the-full-form-of-sql.aspx" \o "What is the full form of SQL?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is sp\_config command?](http://www.dotnetfunda.com/interview/exam4995-what-is-spconfig-command.aspx" \o "What is sp_config command?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  sp\_config is a system stored procedure which is used to displays or changes global configuration settings for the current server.   Syntax:   sp\_configure [ [ @configname = ] 'option\_name'  [ , [ @configvalue = ] 'value' ] ]  Example:   --change configuration option 0 to 1  EXEC sp\_configure 'show advanced option', '1'; |

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| [How to get record of nth row of a table ?](http://www.dotnetfunda.com/interview/exam4999-how-to-get-record-of-nth-row-of-a-table.aspx" \o "How to get record of nth row of a table ?) Posted by: [Dhiren.Kaunar@Gmail.Com](http://www.dotnetfunda.com/profile/dhiren.kaunar@gmail.com.aspx)  Problem : I have an **employee**table , and **id** is the primary key ,then how to find out third employee record   For the above problem I have found the below solutions :   How to get  CREATE TABLE [dbo].[Employee](  [Id] [int] NOT NULL PRIMARY KEY,  [Name] [varchar](50) NULL,  [Age] [int] NOT NULL,  [Photo] [image] NULL,  [Salary] [numeric](10, 2) NULL,  )  INSERT INTO Employee values (101,'James Clerk',29,NULL,1000.00);  INSERT INTO Employee values (102,'Steve Proell',40,NULL,60000.00);  INSERT INTO Employee values (103,'Matt Mcnair',35,NULL,5000.00);  INSERT INTO Employee values (104,'Amit Kr',29,NULL,1000.00);  INSERT INTO Employee values (105,'Jeff Yeary',32,NULL,1000.00);   # Example 1 : Using Max()   select \* from employee where id in (  select MAX(Id) from Employee  where Id in (select top(3) ID from Employee ))  # Example 2 : Using Top() ,asc , desc   select top 1 \*  from employee  where Id in (select top 4 Id from employee order by Id asc)  order by Id desc  #Example 3 : Using ROW\_NUMBER()   SELECT \* FROM  (SELECT ROW\_NUMBER() OVER (ORDER BY ID) AS RowNum, \* FROM Employee) sub  WHERE RowNum =4    Please suggest if any more solution is there for this. |
| [How to get the nth row value of a table.](http://www.dotnetfunda.com/interview/exam5002-how-to-get-the-nth-row-value-of-a-table.aspx" \o "How to get the nth row value of a table.) Posted by: [Dhiren.Kaunar@Gmail.Com](http://www.dotnetfunda.com/profile/dhiren.kaunar@gmail.com.aspx)  Problem : I have a employee table then how to find out nth employee detail with out using the actual id.   For the above question I have found the below solution.   The below solution I have wrote the query for , getting the record of third employee.   CREATE TABLE [dbo].[Employee](  [Id] [int] NOT NULL PRIMARY KEY,  [Name] [varchar](50) NULL,  [Age] [int] NOT NULL,  [Photo] [image] NULL,  [Salary] [numeric](10, 2) NULL,  )   INSERT INTO Employee values (101,'James Clerk',29,NULL,1000.00);  INSERT INTO Employee values (102,'Steve Proell',40,NULL,60000.00);  INSERT INTO Employee values (103,'Matt Mcnair',35,NULL,5000.00);  INSERT INTO Employee values (104,'Amit Kr',29,NULL,1000.00);  INSERT INTO Employee values (105,'Jeff Yeary',32,NULL,1000.00);   # Solution 1   select \* from employee where id in (  select MAX(Id) from Employee  where Id in (select top(3) ID from Employee ))  # Solution 2   select top 1 \*  from employee  where Id in (select top 3 Id from employee order by Id asc)  order by Id desc  # Solution 3   SELECT \* FROM  (SELECT ROW\_NUMBER() OVER (ORDER BY ID) AS RowNum, \* FROM Employee) sub  WHERE RowNum = 3  Please suggest if any other solution are there for the above problem |
| [Is there a way to decrypt stored procedure?](http://www.dotnetfunda.com/interview/exam5025-is-there-a-way-to-decrypt-stored-procedure.aspx" \o "Is there a way to decrypt stored procedure?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  No, there is no way to decrypt a stored procedure, once you have encrypted your stored procedure, you can not get your code.   So better to create your procedure without encryption and save script file in some location then alter procedure with encryption. |
| [What is Collation ?](http://www.dotnetfunda.com/interview/exam5030-what-is-collation.aspx" \o "What is Collation ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Collation refers to a set of rules that determine how data is sorted and compared. Character data is sorted using rules that define the correct character sequence, with options for specifying case sensitivity, accent marks, kana character types and character width. |
| [What is Identity?](http://www.dotnetfunda.com/interview/exam5034-what-is-identity.aspx" \o "What is Identity?) Posted by: [Rajni.Shekhar](http://www.dotnetfunda.com/profile/rajni.shekhar.aspx)  Identity is column that automatically generates numeric values, it is increamented by 1 by default but it can be set also.   Example:   Create table tabName  (  ID INT IDENTITY(1,1) NOT NULL,  NAME VARCHAR(20) NULL  ) |
| [What is the difference between SQL and SQL Server ?](http://www.dotnetfunda.com/interview/exam5055-what-is-the-difference-between-sql-and-sql-server.aspx" \o "What is the difference between SQL and SQL Server ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  SQLServer is an RDBMS just like oracle,DB2 from Microsoft.   Structured Query Language (SQL), pronounced "sequel", is a language that provides an interface to relational database systems.SQL is used to perform various operations on RDBMS. |
| [What is diffrence between Co-related sub query and nested sub query ?](http://www.dotnetfunda.com/interview/exam5056-what-is-diffrence-between-co-related-sub-query-and-nested-sub-query.aspx" \o "What is diffrence between Co-related sub query and nested sub query ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Correlated subquery runs once for each row selected by the outer query. It contains a reference to a value from the row selected by the outer query.   Example:   select e1.empname, e1.basicsal, e1.deptno from emp e1  where e1.basicsal = (select max(basicsal) from emp e2 where e2.deptno = e1.deptno)  Nested subquery runs only once for the entire nesting (outer) query. It does not contain any reference to the outer query row.   Example:   select empname, basicsal, deptno from emp  where (deptno, basicsal) in (select deptno, max(basicsal) from emp group by deptno) |
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| [What Operator performs Pattern Matching ?](http://www.dotnetfunda.com/interview/exam5057-what-operator-performs-pattern-matching.aspx" \o "What Operator performs Pattern Matching ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Pattern matching operator is LIKE and it is used with two attributes:   1. % - means matching zero or more characters   2. \_ ( underscore ) - means mathing exactly one character |
| [How can i hide a particular table name of our schema ?](http://www.dotnetfunda.com/interview/exam5058-how-can-i-hide-a-particular-table-name-of-our-schema.aspx" \o "How can i hide a particular table name of our schema ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  You can hide the table name of your schema by creating synonyms.   Example:   you can create a synonym y for table x   create synonym y for x; |
| [What is difference between DBMS and RDBMS ?](http://www.dotnetfunda.com/interview/exam5059-what-is-difference-between-dbms-and-rdbms.aspx" \o "What is difference between DBMS and RDBMS ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The main difference between DBMS & RDBMS is   RDBMS have Normalization. Normalization means to refining the redundant and maintain the stablization.  DBMS hasn't normalization concept. |
| [What are Data Marts ?](http://www.dotnetfunda.com/interview/exam5079-what-are-data-marts.aspx" \o "What are Data Marts ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Data Warehousing is a process in which the data is stored and accessed from central location.  Data Marts are smaller section of Data Warehouses which help data warehouses to collect data.  For example your company has lot of branches which are spanned across the globe. Head-office of the company decides to collect data from all these branches for anticipating market. So to achieve this IT department can setup data mart in all branch offices and a central data warehouse where all data will finally reside. |
| [What is Snow Flake Schema design in database ? What’s the difference between Star and Snow flake schema ?](http://www.dotnetfunda.com/interview/exam5080-what-is-snow-flake-schema-design-in-database-whats-the-difference-betwee.aspx" \o "What is Snow Flake Schema design in database ? What’s the difference between Star and Snow flake schema ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The denormalization of star schema is known as snow flake design.  Star schema is good when you do not have big tables in data warehousing. But when tables start becoming really huge it is better to denormalize. When you denormalize star schema it is nothing but snow flake design. |
| [We have an employee salary table, how do we find the second highest from it ?](http://www.dotnetfunda.com/interview/exam5082-we-have-an-employee-salary-table-how-do-we-find-the-second-highest-from-it.aspx" \o "We have an employee salary table, how do we find the second highest from it ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  You can use the below query to find out the second highest salary from employee salary table.   SELECT \* FROM TblEmployeeSalary a WHERE (2=(SELECT COUNT(DISTINCT(b.salary)) FROM TblEmployeeSalary b WHERE b.salary>=a.salary)) |
| [What is RAID and what are different types of RAID configurations ?](http://www.dotnetfunda.com/interview/exam5092-what-is-raid-and-what-are-different-types-of-raid-configurations.aspx" \o "What is RAID and what are different types of RAID configurations ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  RAID means Redundant Array of Inexpensive Disks. It is used to provide fault tolerance to database servers. There are six RAID levels from 0 through 5, which offers different levels of performance, fault tolerance. |
| [How to determine the service pack currently installed on SQL Server ?](http://www.dotnetfunda.com/interview/exam5093-how-to-determine-the-service-pack-currently-installed-on-sql-server.aspx" \o "How to determine the service pack currently installed on SQL Server ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The global variable @@Version stores the build number of the sqlservr.exe.  This is the way which is used to determine whether the service pack is installed or not. |

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| [What is the query to retrieve first name and sum of order qty for order sum greater than 25, and group the order sum by first name.?](http://www.dotnetfunda.com/interview/exam5115-what-is-the-query-to-retrieve-first-name-and-sum-of-order-qty-for-order-sum.aspx" \o "What is the query to retrieve first name and sum of order qty for order sum greater than 25, and group the order sum by first name.?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The query to retrieve first name and sum of order qty for order sum greater than 25, and group the order sum by first name is as follows:   SELECT FIRSTNAME,SUM(QTY)  FROM orders  GROUP BY FIRSTNAME  HAVING SUM(QTY)>25; |
| [What is the query to retrieve all employees whose name has a String "au"?](http://www.dotnetfunda.com/interview/exam5116-what-is-the-query-to-retrieve-all-employees-whose-name-has-a-string-a.aspx" \o "What is the query to retrieve all employees whose name has a String \"au\"?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The query to retrieve all employees whose name has a String "au" is as follows:   SELECT \*  FROM employees emp  WHERE emp.firstname LIKE ‘%au%’; |
| [Can we call a Trigger in store procedure ?](http://www.dotnetfunda.com/interview/exam5117-can-we-call-a-trigger-in-store-procedure.aspx" \o "Can we call a Trigger in store procedure ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  We cannot call a trigger explicitly from a Stored Procedure as it is also a special kind of Stored Procedure.  A Trigger will fire automatically on the happening of an event like before or after insert, update or delete. |
| [How to get number of Maximum connections can be established to SQL ?](http://www.dotnetfunda.com/interview/exam5118-how-to-get-number-of-maximum-connections-can-be-established-to-sql.aspx" \o "How to get number of Maximum connections can be established to SQL ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  To get the number of Maximum connections established to SQL, the following query is used :   select @@MAX\_Connections |
| [Why do we use SET ROWCOUNT in Sql ?](http://www.dotnetfunda.com/interview/exam5119-why-do-we-use-set-rowcount-in-sql.aspx" \o "Why do we use SET ROWCOUNT in Sql ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This syntax is used in SQL Server to stop processing the query after the specified number of rows are returned.   Example:   SELECT \* FROM EMPLOYEES  - It will return 10 rows of records.    After add SET ROWCOUNT  SET ROWCOUNT 5  SELECT \* FROM EMPLOYEES  - It will return 5 rows of records instead of 10 row.  (Bacause you set the RowCount to 5) |
| [How is the SUBSTR keyword used in SQL ?](http://www.dotnetfunda.com/interview/exam5120-how-is-the-substr-keyword-used-in-sql.aspx" \o "How is the SUBSTR keyword used in SQL ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  SUBSTR is used for string manipulation with column name, first position and string length used as arguments.   Example:   SELECT LastName, SUBSTRING(FirstName, 1, 1) AS Initial  FROM Person.Contact  WHERE LastName like 'Barl%'  ORDER BY LastName    Result:    LastName Initial  --------------------------------- -------  Barley R  Barlow B    (2 row(s) affected) |
| [What level of permissions does a user need to create an assembly with UNSAFE permissions ?](http://www.dotnetfunda.com/interview/exam5121-what-level-of-permissions-does-a-user-need-to-create-an-assembly-with-unsaf.aspx" \o "What level of permissions does a user need to create an assembly with UNSAFE permissions ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The answer is sysadmin  Only a sysadmin can create the assemblies that are specified as unsafe. |
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| [What port do you need to open on your server firewall to enable named pipes connections ?](http://www.dotnetfunda.com/interview/exam5122-what-port-do-you-need-to-open-on-your-server-firewall-to-enable-named-pipes.aspx" \o "What port do you need to open on your server firewall to enable named pipes connections ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  To enable named pipes connections, you need to open Port 445 on your server firewall.  Named pipes communicates across TCP port 445. |
| [Define Candidate Key ?](http://www.dotnetfunda.com/interview/exam5123-define-candidate-key.aspx" \o "Define Candidate Key ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  A candidate key is a key which can identify each row of a table uniquely. Generally a candidate key becomes the primary key of the table. If the table has more than one candidate key, one of them will become the primary key, and the rest are called alternate keys.   Example:   CREATE TABLE Appointments (  ClientID int not null,  CounsellorID int not null,  RoomID int not null,  AppointmentTime datetime not null  )  The candidate keys for this table are {ClientID,AppointmentTime}, {CounsellorID,AppointmentTime} and {RoomID,AppointmentTime}. Any of those combinations of columns could be used to uniquely identify a row in the table, and all of them are composite keys. |
| [What is lock escalation ?](http://www.dotnetfunda.com/interview/exam5124-what-is-lock-escalation.aspx" \o "What is lock escalation ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Lock escalation is the process which involves of converting a lot of low level locks (like row locks, page locks) into higher level locks (like table locks).  Every lock is a memory structure.  More number of locks would mean, more memory being occupied by locks.  To prevent this from happening, SQL Server escalates many fine-grain locks to fewer coarse-grain locks.  Lock escalation threshold was definable in SQL Server 6.5, but from SQL Server 7.0 onwards it is dynamically managed by SQL Server. |
| [What is RAID ?](http://www.dotnetfunda.com/interview/exam5125-what-is-raid.aspx" \o "What is RAID ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  RAID stands for Redundant Array of Inexpensive Disks.  It is used to provide fault tolerance to database servers. |
| [What is meant by Blocking ?](http://www.dotnetfunda.com/interview/exam5126-what-is-meant-by-blocking.aspx" \o "What is meant by Blocking ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Blocking happens when one connection from an application holds a lock and a second connection requires a conflicting lock type.  This forces the second connection to wait, blocked on the first. |
| [How to restart SQL Server in single user mode? How to start SQL Server in minimal configuration mode?](http://www.dotnetfunda.com/interview/exam5127-how-to-restart-sql-server-in-single-user-mode-how-to-start-sql-server-in-m.aspx" \o "How to restart SQL Server in single user mode? How to start SQL Server in minimal configuration mode?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  SQL Server can be started from command line, using the SQLSERVR.EXE.  This EXE has important parameters with which a DBA should be familiar with.  1) -m is used for starting SQL Server in single user mode  2) -f is used to start the SQL Server in minimal configuration mode. |
| [Explain about reporting services of MYSQL ?](http://www.dotnetfunda.com/interview/exam5128-explain-about-reporting-services-of-mysql.aspx" \o "Explain about reporting services of MYSQL ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This forms the report generating environment whereby a report is generated by the data generated by the client and server. This feature is administered via a web interface. Reports are created in RDL format. They can be designed by Microsoft visual studio. |
| [What is the difference between weak entity set & strong entity set ?](http://www.dotnetfunda.com/interview/exam5129-what-is-the-difference-between-weak-entity-set-strong-entity-set.aspx" \o "What is the difference between weak entity set & strong entity set ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Weak Entity Set:  An entity set which does not possess sufficient attributes to form a primary key is known as a weak entity set.  Example:  Specific Person,Company,Event,Plant   Strong Entity Set:  An entity set which does have a primary key is called a strong entity set.  Example:  Set of all Persons,Companies,Trees,Holidays |

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| [What is Normalization?](http://www.dotnetfunda.com/interview/exam5135-what-is-normalization.aspx" \o "What is Normalization?) Posted by: [Bama](http://www.dotnetfunda.com/profile/bama.aspx)  Normalization  Normalization is the process of simplifying the relationship between data elements in a record.   (i) 1st normal form: - 1st N.F is achieved when all repeating groups are removed, and P.K should be defined. big table is broken into many small tables, such that each table has a primary key.  (ii) 2nd normal form: - Eliminate any non-full dependence of data item on record keys. I.e. The columns in a table which is not completely dependent on the primary key are taken to a separate table.  (iii) 3rd normal form: - Eliminate any transitive dependence of data items on P.K’s. i.e. Removes Transitive dependency. Ie If A is the primary key in a table. B & C are columns in the same table. Suppose C depends only on B and B depends on A. Then C does not depend directly on primary key. So remove C from the table to a look up table. |
| [How to get First Day date and Last day Date of the current week.](http://www.dotnetfunda.com/interview/exam5221-how-to-get-first-day-date-and-last-day-date-of-the-current-week.aspx" \o "How to get First Day date and Last day Date of the current week.) Posted by: [Dhiren.Kaunar@Gmail.Com](http://www.dotnetfunda.com/profile/dhiren.kaunar@gmail.com.aspx)  declare @start\_date DATETIME  SET @start\_date=dateadd(week, datediff(week, 0, getdate()), 0) ;  -- Get the last date of the last week  declare @end\_date DATETIME  SET @end\_date=dateadd(week, datediff(week, 0, getdate()), 6) ;    select  CONVERT(VARCHAR(10),@start\_date,105) 'start day date of the week',  CONVERT(VARCHAR(10),@end\_date,105) 'end day date of the week'    CONVERT(VARCHAR(10),@start\_date,105) : This is used for removing the time part from the DateTime data type. |
| [Difference between where and having clause in select statment ?](http://www.dotnetfunda.com/interview/exam5251-difference-between-where-and-having-clause-in-select-statment.aspx" \o "Difference between where and having clause in select statment ?) Posted by: [Rajkatie](http://www.dotnetfunda.com/profile/rajkatie.aspx)  The where clause specifies the criteria which **individual record** s must meet for the query. It can used along select,delete and update statement.   The having clause specifies the criteria which **individual group or an aggregate**function must meet for the query. It can only used with select statement. |
| [What is the wildcard character in SQL ?](http://www.dotnetfunda.com/interview/exam5253-what-is-the-wildcard-character-in-sql.aspx" \o "What is the wildcard character in SQL ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The wildcard character is %.   Example:   Let us say you want to query database with LIKE for all employees whose name starts with La. The wildcard character is %, the proper query with LIKE would involve La%. |
| [What is @@rowcount ?](http://www.dotnetfunda.com/interview/exam5254-what-is-rowcount.aspx" \o "What is @@rowcount ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  @@rowcount gives the number of rows given as a result of previous query ran.   Example:   Create procedure get\_emp\_count ( @emp\_id int)  As Select \* from emp where emp\_id =@emp\_id  If @@rowcount = 0  Begin  Select 'no rows with emp\_id= ' Select @emp\_id  End |
| [HOW MANY TYPES OF JOINS AVAILABLE IN SQL SERVER?](http://www.dotnetfunda.com/interview/exam5291-how-many-types-of-joins-available-in-sql-server.aspx" \o "HOW MANY TYPES OF JOINS AVAILABLE IN SQL SERVER?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  There are Five type of joins available in sql server   1) INNER JOIN  There are Two tables having Common column values go with inner join.  2) OUTER JOIN(LEFT OUTER JOIN,RIGHT OUTER JOIN)  Left outer join: Taking Left side of the values checking in to Right side Taking Right side values checking with left side call right outer join.  3) FULL JOIN  Full join combined with left outer join and right outer join.  4) CROSS JOIN  Cross join is an Cartesian Product.its look matrix format.  5) SELF JOIN  join within the table is called self join.. |
| [WHAT IS TRIGGER IN SQL SERVER?](http://www.dotnetfunda.com/interview/exam5294-what-is-trigger-in-sql-server.aspx" \o "WHAT IS TRIGGER IN SQL SERVER?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  TRIGGER IS AN SELF CONTAINED BLOCK OF STATEMENTS.  TRIGGER IS AN FIRED WHEN AN INSERT,UPDATE ,DELETE STATEMENTS.  TRIGGER IS APPLIED FOR DML STATEMENTS IN SQL SERVER 2000/2005  SQL SERVER 2008 DDL STATEMENTS ALSO SUPPORT TRIGGER   TYPES OF TRIGGER:   THERE ARE TWO TYPES OF TRIGGER AVAILABLE IN SQLSERVER  1) INSTEAD OF TRIRRGER  2) AFTER TRIGGER   REGARDS |
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| [WHAT IS VIEW IN SQL SERVER ?HOW MANY TYPES OF VIEW AVAILABLE?](http://www.dotnetfunda.com/interview/exam5295-what-is-view-in-sql-server-how-many-types-of-view-available.aspx" \o "WHAT IS VIEW IN SQL SERVER ?HOW MANY TYPES OF VIEW AVAILABLE?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  VIEW IS AN VIRTUAL TABLE.VIEW IT WONT OCCUPY ANY MEMORY,VIEW IS AN IMAGINARY TABLE.  VIEW CANNOT INSERT,UPDATE ,DELETE STATEMENTS   THERE TWO TYPES OF VIEWS AVAIALBLE   1) SCHAMABINDING  2) ENCRYPTION   REGARDS |
| [Write query to find out the second largest salary from employee table?](http://www.dotnetfunda.com/interview/exam5308-write-query-to-find-out-the-second-largest-salary-from-employee-table.aspx" \o "Write query to find out the second largest salary from employee table?) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  SELECT MAX(emp\_salary) FROM employee WHERE emp\_salary<(SELECT MAX(emp\_salary) FROM employee)  Here the sub query find-outs the largest salary.The inner query will display the salary which is less than the largest salary.So the output of the query is second largest salary. |
| [If we can execute multiple sql statements inside a stored procedure. What will be the result of this stored procedure ? create procedure usp\_test as begin select \* from order\_table select \* from product\_table end](http://www.dotnetfunda.com/interview/exam5318-if-we-can-execute-multiple-sql-statements-inside-a-stored-procedure-what-w.aspx" \o "If we can execute multiple sql statements inside a stored procedure. What will be the result of this stored procedure ?  create procedure usp_test  as  begin  select * from order_table select * from product_table end) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  When the stored procedure is executed, it will fetch all the rows of the order\_table and product\_table collectively !     Thanks and Regards  Akiii |
| [In SQL Server, what is the difference between Count(\*) and Count(column\_name) ?](http://www.dotnetfunda.com/interview/exam5319-in-sql-server-what-is-the-difference-between-count-and-countcolumnnam.aspx" \o "In SQL Server, what is the difference between Count(*) and Count(column_name) ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  **Count(\*)**- Will count all the rows in the specified table   **Count(column\_name)** - returns the number of rows which have a value (NULL values will not be counted)     Thanks and Regards  Akiii |
| [What is meaning of COUNT(DISTINCT column\_name) ?](http://www.dotnetfunda.com/interview/exam5320-what-is-meaning-of-countdistinct-columnname.aspx" \o "What is meaning of COUNT(DISTINCT column_name) ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  **COUNT(DISTINCT column\_name)** - returns the number of distinct values of the specified column    For example :-   select COUNT(distinct store\_name) from tbl\_MEOC\_information;  It will fetch distinct rows from the store\_name column.    Thanks and Regards  Akiii |
| [There are two tables, customer table has 5 rows and the order table has 8 rows. How many will be generated when the following query is executed against the database :- select \* from tbl\_customer, tbl\_order;](http://www.dotnetfunda.com/interview/exam5321-there-are-two-tables-customer-table-has-5-rows-and-the-order-table-has-8-r.aspx" \o "There are two tables, customer table has 5 rows and the order table has 8 rows. How many will be generated when the following query is executed against the database :-  select *  from tbl_customer, tbl_order;) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Are the two statements same :- select custid from tbl\_order; select All custid from tbl\_order;](http://www.dotnetfunda.com/interview/exam5322-are-the-two-statements-same-select-custid-from-tblorder-select-a.aspx" \o "Are the two statements same :-  select custid from tbl_order;  select All custid from tbl_order;) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Can we define multiple Unique Keys in a table ?](http://www.dotnetfunda.com/interview/exam5324-can-we-define-multiple-unique-keys-in-a-table.aspx" \o "Can we define multiple Unique Keys in a table ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  Yes, we can define multiple unique keys in a table.   Create Table Sampletable  (  UserID integer NOT NULL PRIMARY KEY,  UserName varchar(50),  FirstName varchar(50) ,  LastName varchar(50),  CONSTRAINT us\_UserId UNIQUE (UserID),  CONSTRAINT us\_Username UNIQUE (UserName)  ) |

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| [If you have specified NOT NULL Constraint, will that column allow 'blank' as a value ?](http://www.dotnetfunda.com/interview/exam5325-if-you-have-specified-not-null-constraint-will-that-column-allow-39blan.aspx" \o "If you have specified NOT NULL Constraint, will that column allow 'blank' as a value ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Advantages for using a View in SQL Server ?](http://www.dotnetfunda.com/interview/exam5326-advantages-for-using-a-view-in-sql-server.aspx" \o "Advantages for using a View in SQL Server ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  (1) To hide the complexity of the underlying database schema  (2) To control access to rows and columns of data  (3) Customize the data and schema for a set of users  (4) To aggregate data for performance |
| [Can you update the data in a view?](http://www.dotnetfunda.com/interview/exam5327-can-you-update-the-data-in-a-view.aspx" \o "Can you update the data in a view?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  Yes, we can update the data in a view if proper privileges to the underlying tables are given.   A view is created by joining one or more tables. When you update record(s) in a view, it updates the records in the underlying tables that make up the view. |
| [Does the view continue to exist if the table is dropped from the database ?](http://www.dotnetfunda.com/interview/exam5328-does-the-view-continue-to-exist-if-the-table-is-dropped-from-the-database.aspx" \o "Does the view continue to exist if the table is dropped from the database ?) Posted by: [Akiii](http://www.dotnetfunda.com/profile/akiii.aspx)  If you drop the underlying tables by which the view is created then you will get an error while querying the view.   For example :-   Could not use view or function 'testdb.dbo.cutomerid\_1\_view\_details' because of binding errors. |
| [what is Primary Key in SQL Server](http://www.dotnetfunda.com/interview/exam5330-what-is-primary-key-in-sql-server.aspx" \o "what is Primary Key in SQL Server) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  A Primary Key in a table uniquely identifies each and every row with out allowing Nulls. There are two types of Primary Keys:   1) **Simple Primary Key**==> Defining primary key on a single column is called Simple Primary Key.  2) **Composite Primary Key** ==> Defining Primary Key on more than one column is called Composite Primary Key. |
| [What is Unique Key in SQL Server?](http://www.dotnetfunda.com/interview/exam5331-what-is-unique-key-in-sql-server.aspx" \o "What is Unique Key in SQL Server?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  A Unique Key in a table uniquely identifies each and every row and allowing Nulls per column Combination. There are two types of Unqiue Keys:   1) **Simple Unique Key**==> Defining Unique key on a single column is called Simple Unique Key.  2) **Composite Unique Key** ==> Defining Unique Key on more than one column is called Composite Unique Key. |
| [Difference between Primary key and unique key in SQL Server?](http://www.dotnetfunda.com/interview/exam5332-difference-between-primary-key-and-unique-key-in-sql-server.aspx" \o "Difference between Primary key and unique key in SQL Server?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  1)Primary Key by definition cannot be null, where as unique key can accept null values but if the unique key is defined on a column which is not null , then this unique key can also be used as an alternate primary key functionality to identify unique rows in a table.   2)By definition you can have only one primary key defined on a table where as you can have multiple unique keys defined on a table   3)Also by default Primary key is created as clustered index and unique key is created as non clustered index. |
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| [what is Check Constraint in SQL Server ?](http://www.dotnetfunda.com/interview/exam5333-what-is-check-constraint-in-sql-server.aspx" \o "what is Check Constraint in SQL Server ?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  Check constraint specifies a condition that is enforced for each row of the table on which the constraint is defined. Once constraint is defined, insert or update to the data within the tables is checked against the defined constraint. |
| [Difference between Check Constraint and Rule?](http://www.dotnetfunda.com/interview/exam5335-difference-between-check-constraint-and-rule.aspx" \o "Difference between Check Constraint and Rule?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  The major difference between rule and Check is re usability. Check constraint is associated with columns in a Table. So these can't be re-used. Rules are defined with in a database and can be applied to any number of columns. |
| [What is the table name,that contains the Primary Key, Unique Key and Foreign Key Information?](http://www.dotnetfunda.com/interview/exam5337-what-is-the-table-namethat-contains-the-primary-key-unique-key-and-foreig.aspx" \o "What is the table name,that contains the Primary Key, Unique Key and Foreign Key Information?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  INFORMATION\_SCHEMA.TABLE\_CONSTRAINTS, where CONSTRAINT\_TYPE column stores the information of Constraint Type. |
| [Difference between Primary key,unique key,Alternate Key?](http://www.dotnetfunda.com/interview/exam5338-difference-between-primary-keyunique-keyalternate-key.aspx" \o "Difference between Primary key,unique key,Alternate Key?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  Primary Key ==> Is used to uniquely identify records and doesn't allow NULL values.   Unique Key ==> Is also used to uniquely identify records but does allow NULL Values per column combination.   Alternate Key ==> Is another type of Unique key, which is used to identify each record uniquely. This is not a constraint. This is just a terminology. |
| [How to disable and Enable the constraints?](http://www.dotnetfunda.com/interview/exam5339-how-to-disable-and-enable-the-constraints.aspx" \o "How to disable and Enable the constraints?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  You need to use ALTER TABLE statement to disable constraint.   alter table <tablename> nocheck constraint <constraintName></CODE]    To Enable      alter table <Tablename> check constraint <constraintName> |
| [Can you drop a Parent Table with out affecting its child tables?](http://www.dotnetfunda.com/interview/exam5340-can-you-drop-a-parent-table-with-out-affecting-its-child-tables.aspx" \o "Can you drop a Parent Table with out affecting its child tables?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  No. First you need to drop all the Foreign Key relationships and then only you can drop Parent Table. |
| [How to Alter constraint in sql server?](http://www.dotnetfunda.com/interview/exam5341-how-to-alter-constraint-in-sql-server.aspx" \o "How to Alter constraint in sql server?) Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  **Alter Constraint:**   Alter table <TableName> Add Constraint <constraintname>  Check(Columnname <100)  Go   Drop Constraint:   Alter Table <TableName> Drop Constraint <constraintname>  Go   Clean up   ALTER DATABASE <DataBaseName>  SET SINGLE\_USER WITH ROLLBACK IMMEDIATE;  GO  DROP DATABASE <DataBasename> |
| [How to load an Object(Image, Document,... Etc.,) into SQL Server Table?](http://www.dotnetfunda.com/interview/exam5342-how-to-load-an-objectimage-document-etc-into-sql-server-table.aspx" \o "How to load an Object(Image, Document,... Etc.,) into SQL Server Table?) Posted by: [Pandians](http://www.dotnetfunda.com/profile/pandians.aspx)  We can use OPENROWSET statement to load an Object into a Table.   VARBINARY data type is the recommended one to hold an Object   Create Table LoadImage  (  ImageContent VARBINARY(MAX)  )  Go  Loading Image into a Table  INSERT LoadImage  SELECT \* FROM OPENROWSET(BULK N'D:\Pandian.s\Photo.JPG', SINGLE\_BLOB) AS [Image]  Go |
| [Define Stored Procedure with Example?](http://www.dotnetfunda.com/interview/exam5343-define-stored-procedure-with-example.aspx" \o "Define Stored Procedure with Example?)  Posted by: [Sriramnandha](http://www.dotnetfunda.com/profile/sriramnandha.aspx)  Stored Procedure is an collection SQL Statements. To Reuse the code over and over again.  Stored Procedure is an Precompiled Execution. Stored Procedure have input and out put Parameters.  Stored Procedure Can reduce the Client /Server Network Traffic.  Explanation:  Before Creating store procedure whether insert data or select data..  In This example am using Adventure works DataBase   SELECT \* FROM AdventureWorks.Person.Address    CREATE PROCEDURE GetAddress  AS  SELECT \* FROM AdventureWorks.Person.Address  GO    EXEC GetAddress  --or just simply  uspGetAddress  To Create a Stored Procedure u can use Create Procedure or Create Proc  Just like you have the ability to use parameters with your SQL code you can also setup your stored procedures to except one or more parameter values.   CREATE PROCEDURE uspGetAddress @City nvarchar(30)  AS  SELECT \*  FROM AdventureWorks.Person.Address  WHERE City = @City  GO    CREATE PROCEDURE uspGetAddress @City nvarchar(30)  AS  SELECT \*  FROM AdventureWorks.Person.Address  WHERE City LIKE @City + '%'  GO  Default Parameter Values   CREATE PROCEDURE uspGetAddress @City nvarchar(30) = NULL  AS  SELECT \*  FROM AdventureWorks.Person.Address  WHERE City = @City  GO |
| [Where the #Table is stored???](http://www.dotnetfunda.com/interview/exam5346-where-the-table-is-stored.aspx" \o "Where the #Table is stored???)  Posted by: [Ajay.Kalol](http://www.dotnetfunda.com/profile/ajay.kalol.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [How will you copy the structure of a table without copying the data ?](http://www.dotnetfunda.com/interview/exam5358-how-will-you-copy-the-structure-of-a-table-without-copying-the-data.aspx" \o "How will you copy the structure of a table without copying the data ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  By using UNIVERSAL FASLE condition like 1=2,A=B....etc.  This is the only method for copying the structure of the table without copying the data.   Example:   create table NEWTable AS select \* from OLDTABLE where 1=2 |
| [Where does Profiler store its temporary data in SQL Server 2005 ?](http://www.dotnetfunda.com/interview/exam5360-where-does-profiler-store-its-temporary-data-in-sql-server-2005.aspx" \o "Where does Profiler store its temporary data in SQL Server 2005 ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Profiler store its temporary data in the directory stored in the system variable TEMP.  The Profiler uses the location specified for the TEMP system variable. |
| [Explain about the command line tool SQLCMD ?](http://www.dotnetfunda.com/interview/exam5361-explain-about-the-command-line-tool-sqlcmd.aspx" \o "Explain about the command line tool SQLCMD ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The command line tool is available in the package of Microsoft SQL server. It states about the management features of SQL server.  Queries can be written and executed using this tool.  Scripts using this command tool are stored as .sql and can be used to manage or create database. |
| [What is DESCRIBE command in SQL Server ?](http://www.dotnetfunda.com/interview/exam5362-what-is-describe-command-in-sql-server.aspx" \o "What is DESCRIBE command in SQL Server ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  DESCRIBE command is used in Oracle.  By using this command we can see the structure of the table. In SQL Server, we use sp\_help fpr the same purpose.   Example:   To describe a procedure called CUSTOMER\_LOOKUP, enter   DESCRIBE customer\_lookup  Output:   PROCEDURE customer\_lookup  Argument Name Type In/Out Default?  ---------------------- -------- -------- ---------  CUST\_ID NUMBER IN  CUST\_NAME VARCHAR2 OUT |
| [Explain different isolation levels ?](http://www.dotnetfunda.com/interview/exam5368-explain-different-isolation-levels.aspx" \o "Explain different isolation levels ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  An isolation level determines the degree of isolation of data between concurrent transactions. Read Committed is the default SQL Server isolation level.  The other isolation levels (in the ascending order of isolation) are:  Read Uncommitted,  Read Committed,  Repeatable Read,  Serializable.   Example:   CREATE INDEX myIndex ON myTable (myColumn) |
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| [What is Lock Escalation ?](http://www.dotnetfunda.com/interview/exam5369-what-is-lock-escalation.aspx" \o "What is Lock Escalation ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Lock escalation is the process of converting a lot of low level locks (like row locks, page locks) into higher level locks (like table locks).  Every lock is a memory structure. Too many locks would mean, more memory being occupied by locks. To prevent this from happening, SQL Server escalates the many fine-grain locks to fewer coarse-grain locks. Lock escalation threshold was definable in SQL Server 6.5, but from SQL Server 7.0 onwards it is dynamically managed by SQL Server. |
| [What is a deadlock and How will you go about resolving deadlocks?](http://www.dotnetfunda.com/interview/exam5370-what-is-a-deadlock-and-how-will-you-go-about-resolving-deadlocks.aspx" \o "What is a deadlock and How will you go about resolving deadlocks?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Deadlock is a situation when two processes, each having a lock on one piece of data, attempt to acquire a lock on the other's piece. Each process would wait indefinitely for the other to release the lock, unless one of the user processes is terminated.   To Resolve the deadlock, the following way is used :   Transaction A :   RETRY: -- Label RETRY  BEGIN TRANSACTION  BEGIN TRY  UPDATE Customer SET LastName = 'John' WHERE CustomerId=111  WAITFOR DELAY '00:00:05' -- Wait for 5 ms  UPDATE Orders SET CustomerId = 1 WHERE OrderId = 221  COMMIT TRANSACTION  END TRY  BEGIN CATCH  PRINT 'Rollback Transaction'  ROLLBACK TRANSACTION  IF ERROR\_NUMBER() = 1205 -- Deadlock Error Number  BEGIN  WAITFOR DELAY '00:00:00.05' -- Wait for 5 ms  GOTO RETRY -- Go to Label RETRY  END  END CATCH  Transaction B :   RETRY: -- Label RETRY  BEGIN TRANSACTION  BEGIN TRY  UPDATE Orders SET ShippingId = 12 Where OrderId = 221  WAITFOR DELAY '00:00:05' -- Wait for 5 ms  UPDATE Customer SET FirstName = 'Mike' WHERE CustomerId=111  COMMIT TRANSACTION  END TRY  BEGIN CATCH  PRINT 'Rollback Transaction'  ROLLBACK TRANSACTION  IF ERROR\_NUMBER() = 1205 -- Deadlock Error Number  BEGIN  WAITFOR DELAY '00:00:00.05' -- Wait for 5 ms  GOTO RETRY -- Go to Label RETRY  END  END CATCH  Here I have used Label RETRY at the beginning of both the transactions. The TRY/CATCH method is used to handle the exceptions in the transactions. If the code within the TRY block fails, the control automatically jumps to the CATCH block, letting the transaction roll back, and if the exception is occurred due to deadlock, the transaction waits for 5 milliseconds. The delay is used here because the other transaction (which is not aborted) can complete its operation within delay duration and release the lock on the table which was required by the aborted transaction. You can increase the delay according to the size of your transactions. After the delay, the transaction starts executing from the beginning (RETRY: Label RETRY at the beginning of the transaction).   Now Execute the Transaction A and Transaction B at the same time. Both the transactions will execute successfully. |
| [What is a live lock ?](http://www.dotnetfunda.com/interview/exam5371-what-is-a-live-lock.aspx" \o "What is a live lock ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  A livelock is one, where a request for an exclusive lock is repeatedly denied because a series of overlapping shared locks keeps interfering. SQL Server detects the situation after four denials and refuses further shared locks. A livelock also occurs when read transactions monopolize a table or page, forcing a write transaction to wait indefinitely.   Example:   This is explained clearly from the below example:   --1  SET TRANSACTION ISOLATION LEVEL SERIALIZABLE  BEGIN TRAN  SELECT \* FROM authors    --2  UPDATE authors  SET au\_lname = 'X'  WHERE au\_id = '238-95-7766'    --3  SET TRANSACTION ISOLATION LEVEL SERIALIZABLE  BEGIN TRAN  SELECT \* FROM authors    --4  SET TRANSACTION ISOLATION LEVEL SERIALIZABLE  BEGIN TRAN  SELECT \* FROM authors    --5  EXEC sp\_who2  You will see that 2 is blocked by 1, 3 is blocked by 2 and 4 is blocked by 3. Theoretically, 3 and 4 could execute (there's only a shared lock), but queuing makes 3 and 4 to wait. This is how livelocks are avoided. |
| [Which is default sorting option in SQL ORDER BY clause?](http://www.dotnetfunda.com/interview/exam5376-which-is-default-sorting-option-in-sql-order-by-clause.aspx" \o "Which is  default sorting option in SQL ORDER BY clause?)  Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which SQL keyword is used to retrieve a maximum value?](http://www.dotnetfunda.com/interview/exam5377-which-sql-keyword-is-used-to-retrieve-a-maximum-value.aspx" \o "Which SQL keyword is used to retrieve a maximum value?)  Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which of the following SQL statements is correct?](http://www.dotnetfunda.com/interview/exam5378-which-of-the-following-sql-statements-is-correct.aspx" \o "Which of the following SQL statements is correct?)  Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Which SQL keyword is used to retrieve only unique values?](http://www.dotnetfunda.com/interview/exam5379-which-sql-keyword-is-used-to-retrieve-only-unique-values.aspx" \o "Which SQL keyword is used to retrieve only unique values?)  Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Explain Composite Index in SQL Server.](http://www.dotnetfunda.com/interview/exam5396-explain-composite-index-in-sql-server.aspx" \o "Explain Composite Index in SQL Server.)  Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  In SQL 2005 and 2008 we can add up to 16 columns in a index. Such index that consists of more than one columns is referred as composite index.  Both clustered and non-clustered indexes can be composite index.The order of the columns are very important here.   Syntax   CREATE INDEX index\_name  ON [table\_name] (col1,col2,...col16);  For example.   CREATE INDEX IX\_Student\_Composite  ON [Student] (student\_Code,student\_Name); |

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| [What is Job in Sql Server ?](http://www.dotnetfunda.com/interview/exam5408-what-is-job-in-sql-server.aspx" \o "What is Job in Sql Server ?) Posted by: [Rajkatie](http://www.dotnetfunda.com/profile/rajkatie.aspx)  It is a series of operations performed by SQL Server Agent sequentially .   It can do a wide range of activities, including running T-SQL scripts and ActiveX scripts, Integration Services packages, Analysis Services commands and queries, or Replication tasks.   Jobs can run repetitive or schedulable tasks, and they can automatically notify users of job status by generating alerts, thereby greatly simplifying SQL Server admin.   A job can be edited only by its owner or members of the **sysadmin**role |
| [Difference between Database Mail and SQLMail ?](http://www.dotnetfunda.com/interview/exam5409-difference-between-database-mail-and-sqlmail.aspx" \o "Difference between Database Mail and SQLMail ?) Posted by: [Rajkatie](http://www.dotnetfunda.com/profile/rajkatie.aspx)  **Database mail** :  Based on SMTP (Simple Mail Transfer Protocol).  Introduced in Sql 2005.  No need to install Outlook.  Depend on Service Broker service.  More secure than Sqlmail.    **SQLMail**:  Based on MAPI (Messaging Application Programming Interface).  Used prior versions of Sql server 2005.  Require Outlook to be installed.  Leass secure than Database mail. |
| [Explain different types of CASE expression with Example.](http://www.dotnetfunda.com/interview/exam5426-explain-different-types-of-case-expression-with-example.aspx" \o "Explain different types of  CASE expression with Example.) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  **CASE**  Evaluates a list of conditions and returns one result.   There are two types of CASE expressions in SQL   1.Simple CASE  The simple CASE expression compares an expression to a set of simple expressions to determine the result.  2.Searched CASE  The searched CASE expression evaluates a set of Boolean expressions to determine the result.   *Both formats support an optional ELSE argument.*   --Simple CASE expression:   CASE input\_expression    WHEN when\_expression THEN result\_expression [ ...n ]    [ ELSE else\_result\_expression ]    END  --Searched CASE expression:   CASE    WHEN Boolean\_expression THEN result\_expression [ ...n ]    [ ELSE else\_result\_expression ]    END  Examples:     --Simple CASE expression:   SELECT empID,empname,CASE gender    WHEN 'M' THEN 'Male'    WHEN 'F' THEN 'Female'    ELSE 'NA'    END    FROM employee  --Searched CASE expression:   SELECT empID,empname,  CASE  WHEN gender= 'M' THEN 'Male'    WHEN gender= 'F' THEN 'Female'    END    FROM employee |
| [What is SQL Server Express LocalDB ?](http://www.dotnetfunda.com/interview/exam5431-what-is-sql-server-express-localdb.aspx" \o "What is SQL Server Express LocalDB ?) Posted by: [Rajkatie](http://www.dotnetfunda.com/profile/rajkatie.aspx)  It is a new feature introduce in sql server 2012. It is a lightweight version of SQL Server that has many programmability features of a SQL Server database like stored procedures, user-defined functions and aggregates, .NET Framework integration,  spatial types and others that are not available in SQL Server Compact.   It runs in user mode and any database or T-SQL code can be moved from SQL Server Express LocalDB to SQL Server and SQL Azure without any upgrade steps. |
| [Write A Query : We have a table EmpMaster Which have two column Name varchar(50), Gender char(1). We want to Update Gender Column . Means Where Gender Is 'M' Update With 'F' and 'F' Update with 'M'](http://www.dotnetfunda.com/interview/exam5438-write-a-query-we-have-a-table-empmaster-which-have-two-column-name-varc.aspx" \o "Write A Query :  We have a table EmpMaster Which have two column Name varchar(50), Gender char(1).  We want to Update Gender Column . Means Where Gender Is 'M' Update With 'F' and 'F' Update with 'M') Posted by: [Anu.Malik](http://www.dotnetfunda.com/profile/anu.malik.aspx)  --Create Table   CREATE TABLE EMPMaster(  [EMP\_Name] [varchar](50) ,  Gender Char(1)  )   --Insert Record  Insert INTO EMPMaster Values('AA','M')  Insert INTO EMPMaster Values('BB','M')  Insert INTO EMPMaster Values('CC','F')  Insert INTO EMPMaster Values('DD','M')  Insert INTO EMPMaster Values('EE','F')  Insert INTO EMPMaster Values('FF','F')   --Update Query   Update EMPMaster SET Gender=Case When Gender='M' Then 'F'  Else 'M' END |
| [What is Co-Related subquery?](http://www.dotnetfunda.com/interview/exam5441-what-is-co-related-subquery.aspx" \o "What is Co-Related subquery?) Posted by: [Manicse](http://www.dotnetfunda.com/profile/manicse.aspx)  The Subquery is one which Produces output based on the inner query values.   Whereas, Co-related subquery is one which the output based on the values of outer query.   E-g   SELECT e.EmployeeID  FROM HumanManangement.Employee e  WHERE e.ContactID IN  (  SELECT c.ContactID  FROM Employee\_Person.Contact c  WHERE MONTH(c.ModifiedDate) = MONTH(e.ModifiedDate)  ) |
| [How will you concatenate data in Sql Server without using a variable and any RBAR approach?](http://www.dotnetfunda.com/interview/exam5450-how-will-you-concatenate-data-in-sql-server-without-using-a-variable-and-an.aspx" \o "How will you concatenate data in Sql Server without using a variable and any RBAR approach?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Suppose, we have some data in a table as shown under   Data  ----------  Hello,  How  Are  You   We need to write a SQL Query to bring the following output   ConcatenateData  -----------------------  Hello,How Are You   **Solution**   DECLARE @t TABLE(Data Varchar(20))  INSERT @t SELECT 'Hello,' UNION ALL SELECT 'How' UNION ALL SELECT 'Are' UNION ALL SELECT 'You'    SELECT  ConcatenateData  FROM  (  SELECT ' ' + CAST(Data AS varchar(8000))  FROM @t  FOR XML PATH ('')  ) X(ConcatenateData) |
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| [What is choose function in Denali? Explain with example.](http://www.dotnetfunda.com/interview/exam5463-what-is-choose-function-in-denali-explain-with-example.aspx" \o "What is choose function in Denali? Explain with example.) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Given a list of values and a position, the Choose function will return the value at the indicated position.   The syntax is  Choose ([Position], [Value1],[Value2],…,[ValueN])  e.g.   Select Choose (1,'Value1', 'Value2','Value3') As [Choose Demo]    /\*  Choose Demo  ------------  Value1  \*/  In this example, we have specified the position as 1 and hence out of the two values, the first appears as the result. |
| [What is Concat function in Denali? Explain with example.](http://www.dotnetfunda.com/interview/exam5464-what-is-concat-function-in-denali-explain-with-example.aspx" \o "What is Concat function in Denali? Explain with example.) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  As the name suggests, it concatenates strings. In earlier versions of Sql Server we have the option of performing concatenation using the '+' symbol. But the overhead was that if the types that are participating in the concatenation are not of varchar type, then we had to do explicit conversion else it was resulting in error. However, the new Concat() function takes care of this explicit conversion.   e.g.   Select Concat('Sql',12, Null, 'Code Name', ' Denali') As [MultipleField Concat]    /\* Output  MultipleField Concat  ---------------------  Sql12Code Name Denali  \*/ |
| [What is Format function in Denali? Explain with example.](http://www.dotnetfunda.com/interview/exam5488-what-is-format-function-in-denali-explain-with-example.aspx" \o "What is Format function in Denali? Explain with example.) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This function is use to format the value.  The syntax is as under   Format (expression, format [, culture])  e.g.   Select FormattedCurrency = FORMAT(50,'c','ru') ,Dateformat = FORMAT('07/14/2012','yyyy/mm/dd','fr')    /\*  FormattedCurrency Dateformat  ----------------- ---------  50,00p. 2012/07/14  \*/ |
| [What is EOMonth function in Denali? Explain with example.](http://www.dotnetfunda.com/interview/exam5489-what-is-eomonth-function-in-denali-explain-with-example.aspx" \o "What is EOMonth function in Denali? Explain with example.) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This function is use to find out the last day of the month.  e.g.   Select LastDayOfcurrentMonth = CONVERT(varchar(10),EOMonth(GETDATE()),110)  /\*  LastDayOfcurrentMonth  ---------------------------------  07-31-2012  \*/ |
| [What are the advantages of Sparse Column?](http://www.dotnetfunda.com/interview/exam5511-what-are-the-advantages-of-sparse-column.aspx" \o "What are the advantages of Sparse Column?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  - Eliminate the limit of maximum allowed column in SQL Server 2008 per table which is 1024.The maximum limit of SPARSE column is 100,000.So we can have 1024 + 100,000 columns.   - When there is a need to save 20-40% of space or a significant percentage of the rows to have a Zero or NULL value we can go for Sparse column.   - Sparse columns works well with filtered indexes because we create index for dealing with the non-empty attributes in the column.   - It was developed to be use in Content management systems like SharePoint which is one of the key drivers for File Stream project. |
| [What are the limitations of Sparse Column?](http://www.dotnetfunda.com/interview/exam5512-what-are-the-limitations-of-sparse-column.aspx" \o "What are the limitations of Sparse Column?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  a) Microsoft recommends to use sparse columkn if there is a need to save space by at least 20 to 40%.   b) For Sparse column to act on a specific column, it must be nullable and cannot be configured with the ROWGUIDCOL or IDENTITY properties.   c) Sparse Columns cannot include Default value.   d) We cannot make a sparse column for TEXT, IMAGE, or TIMESTAMP datatypes.   e) I cannot be part of a clustered index.   f) It cannot be a unique primary key index. |
| [What is the difference between Inline Table Valued Function and Views?](http://www.dotnetfunda.com/interview/exam5513-what-is-the-difference-between-inline-table-valued-function-and-views.aspx" \o "What is the difference between Inline Table Valued Function and Views?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  A few key differences is listed here   a) View can be materialized (indexed view) and hence performs better. But Inline Table Valued functions cannot be indexed and performance decreases when number of rows increases.   b) Views can have triggers since they can be used to change underlying tables (INSTEAD OF triggers) but not Inline Table Valued functions.   c) We can use CROSS APPLY with the Inline Table Valued function but not with a view.   d) Views don't accept parameter but Inline Table Valued function does so. |
| [Write the query to find the EOM(End of Month) given the start date (or any date) of a month?](http://www.dotnetfunda.com/interview/exam5516-write-the-query-to-find-the-eomend-of-month-given-the-start-date-or-any.aspx" \o "Write the query to find the EOM(End of Month) given the start date (or any date) of a month?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  DECLARE @date varchar(10)  SET @date = '6/12/2012' -- mm/dd/yyyy  SELECT EOM = DATEADD(month, ((YEAR(@date) - 1900) \* 12) + MONTH(@date), -1) |

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| [Given month number, how will you get month name in SQL Server without using CASE statement?](http://www.dotnetfunda.com/interview/exam5526-given-month-number-how-will-you-get-month-name-in-sql-server-without-using.aspx" \o "Given month number, how will you get month name in SQL Server without using CASE statement?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  We can use the **DATENAME**function for accomplishing the task.This function is used to  return a single string part of a date/time.   The general syntax is :  DATENAME ( datepart , date )  So if we specify the datepart as month number, we will get the month name component from this function.   Now, given any month number, we will first construct the first day of the month as under   *CAST('10' + '/1/1900' AS DATETIME)*  where 10 is month number   So, since we have now constructed the date, now we can easily apply the DATEPART function to obtain the month number   DECLARE @MonthNumber INT = 10    SELECT [Month Name] = DATENAME(MONTH,CAST('10' + '/1/1900' AS DATETIME))      /\* Result \*/  Month Name  ----------  October |
| [How will you get month number if month name is given?](http://www.dotnetfunda.com/interview/exam5527-how-will-you-get-month-number-if-month-name-is-given.aspx" \o "How will you get month number if month name is given?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  We can use the DATEPART function for accomplishing the task.This function is used to  return a single part of a date/time.   The general syntax is :  DATEPART(datepart,date)  So if we specify the datepart as month, we will get the month component from this function.   e.g.   SELECT [MonthNumber] = DATEPART(mm,getdate())  will give the current month number since we are interested only in the month datepart (mm).   Now, given any month, we will first construct the first day of the month as under   Declare @monthname Varchar(20) = 'October'  Select CompleteDate = CAST(@monthname + ' 1, 1900' AS DATETIME)    /\* Output \*/  CompleteDate  ----------------------  1900-10-01 00:00:00.000  So, since we have now constructed the date, now we can easily apply the DATEPART function to obtain the month number   Declare @monthname Varchar(20) = 'October'  Select [MonthNumber] = DATEPART(mm,CAST(@monthname + ' 1, 1900' AS DATETIME))      /\* Result \*/  [MonthNumber]  ------------  10 |
| [Write a query to obtain the %Rank of students using SQL Server 2005's NTile function](http://www.dotnetfunda.com/interview/exam5528-write-a-query-to-obtain-the-rank-of-students-using-sql-server-200539s-n.aspx" \o "Write a query to obtain the %Rank of students using SQL Server 2005's NTile function) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Declare @t Table(StudentName Varchar(50),Marks int)  Insert Into @t Values  ('Name1',98),('Name2',78),('Name3',77),('Name4',67),('Name5',99),('Name6',99),  ('Name7',93),('Name8',91),('Name9',69),('Name10',89)    Select  StudentName  ,Marks  ,PercentileRank = NTILE(100) OVER (Order By Marks)  From @t    /\* Result \*/    StudentName Marks PercentileRank  Name4 67 1  Name9 69 2  Name3 77 3  Name2 78 4  Name10 89 5  Name8 91 6  Name7 93 7  Name1 98 8  Name5 99 9  Name6 99 10 |
| [Explain Self Join with an example](http://www.dotnetfunda.com/interview/exam5538-explain-self-join-with-an-example.aspx" \o "Explain Self Join with an example) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  Self Join is just like a inner join, which joins the two instance of the same table.   A simple example is to find-out the manger of an employee from the employee table that contains both employee id an manger id.  Here the manager is also an employee having an employee id.   Let us see the code   1.Creating the Employee table   CREATE TABLE Employee   (employee\_id int,   manger\_id int,   employee\_name varchar(20)   )     2.Inserting the value   INSERT INTO Employee VALUES(1,1,'Sachin'),(2,1,'Rahul'),(3,2,'Sourav'),(4,1,'Sunil')     3.The self join query   SELECT emp.employee\_id,emp.employee\_name [Employee], mgr.employee\_name [Manager]    FROM Employee emp, Employee mgr    WHERE emp.manger\_id = mgr.employee\_id |
| [How to update a table using an existing table data?](http://www.dotnetfunda.com/interview/exam5539-how-to-update-a-table-using-an-existing-table-data.aspx" \o "How to update a table using an existing table data?) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  The SELECT INTO statement selects data from one table and inserts it into a different table.  Syntax  SELECT [(<column-list>)] INTO target\_table FROM source\_table   select \* into EmployeeMasTemp from EmployeeMas |
| [Explain ROW\_NUMBER() with an example](http://www.dotnetfunda.com/interview/exam5540-explain-rownumber-with-an-example.aspx" \o "Explain ROW_NUMBER() with an example) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  ROW\_NUMBER() returns the sequential number of a row starting at 1 for the first row.   Simple Example   SELECT ROW\_NUMBER() OVER(ORDER BY emp\_id DESC) AS Row,emp\_id,emp\_salary FROM employee |
| [Explain Common Table Expression(CTE) in SQL Server](http://www.dotnetfunda.com/interview/exam5541-explain-common-table-expressioncte-in-sql-server.aspx" \o "Explain Common Table Expression(CTE) in SQL Server) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  The common table expression (CTE) is a temporary named result set that you can reference within a SELECT, INSERT, UPDATE, or DELETE statement.  A CTE is defined with two parts:   A WITH clause containing a SELECT statement that generates a valid table  An outer SELECT statement that references the table expression.   The basic syntax structure for a CTE is:   WITH expression\_name [ ( column\_name [,...n] ) ]  AS  ( CTE\_query\_definition )    SELECT <column\_list> FROM expression\_name; |
|  |
| [PIVOT in SQL SERVER 2008 with an example?](http://www.dotnetfunda.com/interview/exam5542-pivot-in-sql-server-2008-with-an-example.aspx" \o "PIVOT in SQL SERVER 2008 with an example?) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  PIVOT is a nonstandard relational operator that are supported by Transact-SQL. You can use it to manipulate a table-valued expression into another table. PIVOT rotates a table-valued expression by turning the unique values from one column in the expression into multiple columns in the output, and performs aggregations where they are required on any remaining column values that are wanted in the final output   Example  Input Table   VendorID EmployeeName Orders  --------------------------------------  1 Rahul 5  1 Sourav 3  1 Sunil 9  2 Rahul 8  2 Sourav 4  2 Sunil1 6   SELECT VendorID,[Rahul],[Sourav],[Sunil]    FROM PurchaseOrder    PIVOT    ( sum (Orders)FOR EmployeeName IN ([Rahul],[Sourav],[Sunil] )    ) AS p  Output    VendorID Rahul Sourav Sunil  -------------------------------------  1 5 3 9  2 8 4 6 |
| [UNPIVOT in SQL SERVER 2008 with an example?](http://www.dotnetfunda.com/interview/exam5543-unpivot-in-sql-server-2008-with-an-example.aspx" \o "UNPIVOT in SQL SERVER 2008 with an example?) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  PIVOT and UNPIVOT are nonstandard relational operators that are supported by Transact-SQL. You can use them to manipulate a table-valued expression into another table. PIVOT rotates a table-valued expression by turning the unique values from one column in the expression into multiple columns in the output, and performs aggregations where they are required on any remaining column values that are wanted in the final output. UNPIVOT performs the opposite operation to PIVOT by rotating columns of a table-valued expression into column values.   Example  Input Table   VendorID Rahul Sourav Sunil  -------------------------------------  1 5 3 9  2 8 4 6   SELECT VendorID,EmployeeName,Orders    FROM tempCTE    UNPIVOT    (Orders FOR EmployeeName IN ([Rahul],[Sourav],[Sunil]) )AS unpvt  Output   VendorID EmployeeName Orders  --------------------------------------  1 Rahul 5  1 Sourav 3  1 Sunil 9  2 Rahul 8  2 Sourav 4  2 Sunil1 6 |
| [Exapli sp\_rename in SQL SERVER 2008?](http://www.dotnetfunda.com/interview/exam5544-exapli-sprename-in-sql-server-2008.aspx" \o "Exapli sp_rename in SQL SERVER 2008?) Posted by: [CGN007](http://www.dotnetfunda.com/profile/cgn007.aspx)  Renaming table/column using sp\_rename in SQL SERVER 2008   sp\_rename   sp\_rename [ @objname = ] 'object\_name' , [ @newname = ] 'new\_name'   [ , [ @objtype = ] 'object\_type' ]     Simple syntax   Renaming any column :   sp\_RENAME 'Table\_Name.[Old\_Column\_Name]' , '[New\_Column\_Name]', 'COLUMN'  Renaming any object (table, sp etc) :   sp\_RENAME '[Old\_Table\_Name]' , '[New\_Table\_Name]'  Example   sp\_rename 'employee.name','fullname','COLUMN"    sp\_rename 'employee','employeedetails' |
| [What is an Orphan and how do you find it ?](http://www.dotnetfunda.com/interview/exam5569-what-is-an-orphan-and-how-do-you-find-it.aspx" \o "What is an Orphan and how do you find it ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  The Foreign key value which exist in child table, without existing in primary key column in the parent table is known as an Orphan.   Example for finding an Orphan:   An orphan record exists when there is a Contact2 record but NOT a Contact1 record   SELECT \* FROM Contact2 WHERE AccountNo NOT IN (SELECT AccountNo from Contact1) |
| [Explain the differences between CAST and CONVERT ?](http://www.dotnetfunda.com/interview/exam5571-explain-the-differences-between-cast-and-convert.aspx" \o "Explain the differences between CAST and CONVERT ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Both are used for the same purpose. They both are used to convert from one data type to another specified data type.  The major differences are:  a) CAST cannot allows you to specify the format of the result which you wants to convert, whereas CONVERT allows it.  b) CAST is a part of SQL-92 specification whereas CONVERT is not the part.  c) CONVERT can be used to format dates as strings, whereas CAST cannot.   Example:   Usage of CAST:   USE Sample  GO  SELECT SUBSTRING(Name, 1, 30) AS ProductName, ListPrice  FROM Production.Product  WHERE CAST(ListPrice AS int) LIKE '3%';  GO  Usage of CONVERT:   USE Sample  GO  SELECT SUBSTRING(Name, 1, 30) AS ProductName, ListPrice  FROM Production.Product  WHERE CAST(int, ListPrice) LIKE '3%';  GO |
| [What is meant by SQL session ?](http://www.dotnetfunda.com/interview/exam5572-what-is-meant-by-sql-session.aspx" \o "What is meant by SQL session ?) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  If a user is connected to the database initially, then a session will be established.  While the user is in session, he can use any of the SQL commands. He can manipulate data in the database, and can define database structures such as tables.  Each SQL session is associated with a user identifier and role name.   Example to get the session ID,type:   SELECT @@SPID |
| [Explain about SQL Stuff()..](http://www.dotnetfunda.com/interview/exam5573-explain-about-sql-stuff.aspx" \o "Explain about SQL Stuff()..) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  By deleting a specified number of characters from 1st string expression and replacing them with 2nd string expression, a string will be formed.  This SQL Stuff() function is used to return the newly formed string.  Important note is that, for deletion purpose, you have to specify the starting position and the length of the string.   Example:   SELECT STUFF('1234567',2, 3, '999');  It will display the result as: 1999567 |
| [Explain about BINARY CHECKSUM..](http://www.dotnetfunda.com/interview/exam5574-explain-about-binary-checksum.aspx" \o "Explain about BINARY CHECKSUM..) Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  If any modifications are done to the row of the table, this BINARY CHECKSUM function identifies them which takes case-sensitivity into account.   Example:   SELECT ProductID, BINARY\_CHECKSUM(\*) AS 'Binary Checksum'  FROM Products |
| [Explain about CHECKSUM\_AGG..](http://www.dotnetfunda.com/interview/exam5575-explain-about-checksumagg.aspx" \o "Explain about CHECKSUM_AGG..)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This CHECKSUM\_AGG function will returns a value to evaluate whether the changes are happened. This function will returns the value for a specific column or for the entire table.  The datatype for this function will be either an integer datatype or BINARY\_CHECKSUM function result.   Example:   Using CHECKSUM\_AGG function with BINARY\_CHECKSUM to detect changes in a table:   SELECT CHECKSUM\_AGG(BINARY\_CHECKSUM(UnitsInStock))  FROM Products    Output  7913472 |
| [What is the use of SQL PIVOT ?](http://www.dotnetfunda.com/interview/exam5576-what-is-the-use-of-sql-pivot.aspx" \o "What is the use of SQL PIVOT ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  By using this PIVOT operator, you can rotate the rows in a table to seperate columns.  The main advantage of this operator is that, it takes a normalized table into consideration and will convert it into a new table in which the values of the columns are derived from the original table values.   Example:   create table DailyIncome(VendorId nvarchar(10), IncomeDay nvarchar(10), IncomeAmount int)  The Vendor id, the day of the week they are referring to and what the income on that day was.  So let’s fill it with some data.   insert into DailyIncome values ('SPIKE', 'FRI', 100)  insert into DailyIncome values ('SPIKE', 'MON', 300)  insert into DailyIncome values ('FREDS', 'SUN', 400)  insert into DailyIncome values ('SPIKE', 'WED', 500)  insert into DailyIncome values ('SPIKE', 'TUE', 200)  insert into DailyIncome values ('JOHNS', 'WED', 900)  insert into DailyIncome values ('SPIKE', 'FRI', 100)  insert into DailyIncome values ('JOHNS', 'MON', 300)  insert into DailyIncome values ('SPIKE', 'SUN', 400)  ---  insert into DailyIncome values ('SPIKE', 'SAT', 100)  insert into DailyIncome values ('FREDS', 'SAT', 500)  insert into DailyIncome values ('FREDS', 'THU', 800)  insert into DailyIncome values ('JOHNS', 'TUE', 600)  Now, if we select out the flat data that we have, we will get the following:   VendorId IncomeDay IncomeAmount  ---------- ---------- ------------  SPIKE FRI 100  SPIKE MON 300  FREDS SUN 400  SPIKE WED 500  SPIKE TUE 200  ...  SPIKE WED 500  FREDS THU 800  JOHNS TUE 600  To find the average for each vendor, run this query:   select \* from DailyIncome  pivot (avg (IncomeAmount) for IncomeDay in ([MON],[TUE],[WED],[THU],[FRI],[SAT],[SUN])) as AvgIncomePerDay  Output:   VendorId MON TUE WED THU FRI SAT SUN  ---------- ----------- ----------- ----------- ----------- ----------- ----------- -----------  FREDS 500 350 500 800 900 500 400  JOHNS 300 600 900 800 300 800 600  SPIKE 600 150 500 300 200 100 400 |
| [Explain about IDENT\_CURRENT...](http://www.dotnetfunda.com/interview/exam5577-explain-about-identcurrent.aspx" \o "Explain about IDENT_CURRENT...)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This IDENT\_CURRENT function is used to return a value which is the last identity value inserted in the table.  It takes only one parameter i.e., table name.   Example:   Now here is an example of creating a table with identity column and inserting values in it.   Create table emp\_dummy  {  ID int IDENTITY(5,2),  Name varchar(20)  }  In the above created table, IDENTITY(5,2) means the identity values will start from 5 and will increment by 2.   Insert emp\_dummy values('ABC')  Insert emp\_dummy values('XYZ')    Select \* from emp\_dummy  Output:   ID Name  5 ABC  7 XYZ    Select IDENT\_CURRENT('emp\_dummy')  Result:   It displays 7 as the result |
| [Explain about SCOPE\_IDENTITY..](http://www.dotnetfunda.com/interview/exam5578-explain-about-scopeidentity.aspx" \o "Explain about SCOPE_IDENTITY..)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This SCOPE\_IDENTITY function is used to return a value which is the last generated identity in the current scope.  This scope is of different types. This scope can be a stored procedure or a module or a function or a batch.   Example:   INSERT INTO [Northwind].[dbo].[Shippers]([CompanyName],[Phone])  VALUES ('Load Runner','(503) 555-9830')    SELECT SCOPE\_IDENTITY()  Output  4 |
| [Explain about @@IDENTITY..](http://www.dotnetfunda.com/interview/exam5579-explain-about-identity.aspx" \o "Explain about @@IDENTITY..)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  Unlike SCOPE\_IDENTITY function, this @@IDENTITY function will returns the value which is the last generated identity in the current session.  A session may contain one or more sessions.  An important point to note is that, if at a time, two users using two different connections connected to SQL server inserts two rows with identity column in a table, then each of them will get the value they have just inserted.   Example showing the difference between SCOPE\_IDENTITY and @@IDENTITY   Let’s check how Scope\_Identity() function got impacted in both the scopes.   CREATE TABLE [dbo].[DimUser]  (  [userId] int IDENTITY(1,1) ,  [userName] varchar(100) NULL  )    GO    CREATE TABLE [dbo].[DimUser1]  (  [userId1] int IDENTITY(1,1) ,  [userName1] varchar(100) NULL  )  GO  Let’s create a SP named “sp\_InsertData” as:   CREATE PROCEDURE sp\_InsertData  AS  BEGIN  INSERT INTO [dbo].[DimUser1]  VALUES ('xyz'),  ('pqo'),  ('abc');  END  [dbo].[DimUser1] is another table created similar to [dbo].[DimUser] stated above.   Now, let’s execute our sample query:   INSERT INTO [dbo].[DimUser]  VALUES ('Arun'),  ('John'),  ('Bunty'),  ('Stenly'),  ('Kumar');  GO  EXEC sp\_InsertData    SELECT @@IDENTITY AS [@@IDENTITY],  SCOPE\_IDENTITY() AS [SCOPE\_IDENTITY];  Result:   @@IDENTITY SCOPE\_IDENTITY  3 5 |
| [Explain about SQL COALESCE..](http://www.dotnetfunda.com/interview/exam5580-explain-about-sql-coalesce.aspx" \o "Explain about SQL COALESCE..)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This COALESCE function is used to return a value which is the first non-null expression among all its arguments.  If all the arguments are NULL, in that case COALESCE will return NULL.  It is also used to display any other value instead of NULL value in the result.   Example:   SELECT Name, COALESCE(Business\_Phone, Cell\_Phone, Home\_Phone) Contact\_Phone  FROM Contact\_Info;  Result:   Name Contact\_Phone  Jeff 531-2531  Laura 772-5588  Peter 594-7477 |
| [Explain about Has\_perms\_by\_name function..](http://www.dotnetfunda.com/interview/exam5581-explain-about-haspermsbyname-function.aspx" \o "Explain about Has_perms_by_name function..)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  This function will let the user know whether he has the effective permission on a securable(Ex:Table).  This function cannot be used to check permissions on linked server.   If the user wants to know whether he has the permission for SELECT on the customer's table, he can use the below query:   select Has\_perms\_by\_name('Customers', 'Objects', 'SELECT')  It will return either 1(true) or 0(false).  To check all the tables in which you have select permission, below query is used:   select Has\_perms\_by\_name  (QUOTENAME(SCHEMA\_NAME(schema\_id)) + '.' + QUOTENAME(name),  'OBJECT', 'SELECT') As have\_select, name FROM sys.tables |
|  |
| [What is the reason behind having both login and a user ?](http://www.dotnetfunda.com/interview/exam5582-what-is-the-reason-behind-having-both-login-and-a-user.aspx" \o "What is the reason behind having both login and a user ?)  Posted by: [Bharathi Cherukuri](http://www.dotnetfunda.com/profile/bharathi%20cherukuri.aspx)  By using both login and user, the database server can do the authentication process.  The authorization process can be scoped to the database.  With this advantage, if your database server is moved to another server, then also you can remap the user-login relationship on the database server, but your database need not to be changed. |
| [What is the purpose of sys.dm\_os\_sys\_info?](http://www.dotnetfunda.com/interview/exam5617-what-is-the-purpose-of-sysdmossysinfo.aspx" \o "What is the purpose of sys.dm_os_sys_info?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This DMV returns the information about the SQL Server machine, available resources and the resource consumption.It also provides information like  a) CPU Count: Number of logical CPUs in the server  b) Hyperthread-ratio: Ratio of logical and physical CPUs  c) Physical\_memory\_in\_bytes: Amount of physical memory available  d) Virtual\_memory\_in\_bytes: Amount of virtual memory available  e) Bpool\_commited: Committed physical memory in buffer pool  f) OS\_Priority\_class: Priority class for SQL Server process  g) Max\_workers\_thread: Maximum number of workers which can be created |
| [What is the purpose of sys.dm\_os\_hosts?](http://www.dotnetfunda.com/interview/exam5618-what-is-the-purpose-of-sysdmoshosts.aspx" \o "What is the purpose of sys.dm_os_hosts?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This DMV returns all the hosts registered with SQL Server 2005.It also provides information like  a)Name: Name of the host registered  b)Type: Type of hosted component [SQL Native Interface/OLE DB/MSDART]  c)Active\_tasks\_count: Number active tasks host placed  d)Active\_ios\_count: I/O requests from host waiting |
| [What is the purpose of sys.dm\_os\_schedulers?](http://www.dotnetfunda.com/interview/exam5619-what-is-the-purpose-of-sysdmosschedulers.aspx" \o "What is the purpose of sys.dm_os_schedulers?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This DMV helps to identify if there is any CPU bottleneck in the SQL Server machine. The number of runnable tasks is generally a nonzero value that  indicates that tasks have to wait for their time slice to run. If the runnable task counts show high values, then there is a symptom of CPU bottleneck. |
| [Write a query that will list all the available schedulers in the SQL Server machine and the number of runnable tasks for each scheduler.](http://www.dotnetfunda.com/interview/exam5620-write-a-query-that-will-list-all-the-available-schedulers-in-the-sql-server.aspx" \o "Write a query that will list all the available schedulers in the SQL Server machine and the number of runnable tasks for each scheduler.)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  SELECT  scheduler\_id,current\_tasks\_count,runnable\_tasks\_count  FROM sys.dm\_os\_schedulers   Result   scheduler\_id current\_tasks\_count runnable\_tasks\_count  0 8 0  1 12 0  1048578 1 0  1048576 2 0  1048579 1 0  1048580 1 0  1048581 1 0  1048582 1 0  1048583 1 0 |
| [What is the purpose of sys.dm\_io\_pending\_io\_requests?](http://www.dotnetfunda.com/interview/exam5621-what-is-the-purpose-of-sysdmiopendingiorequests.aspx" \o "What is the purpose of sys.dm_io_pending_io_requests?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This DMV will return the I/O requests pending in SQL Server side. It provides the below information  a)Io\_type: Type of pending I/O request  b)Io\_pending: Indicates whether the I/O request is pending or has been completed by Windows  c)Scheduler\_address: Scheduler on which this I/O request was issued |
| [What is the purpose of sys.dm\_os\_ring\_buffers?](http://www.dotnetfunda.com/interview/exam5622-what-is-the-purpose-of-sysdmosringbuffers.aspx" \o "What is the purpose of sys.dm_os_ring_buffers?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  This DMV uses RING\_BUFFER\_RESOURCE\_MONITOR and gives information from resource monitor notifications to identify memory state changes. Internally, SQL Server has a framework that monitors different memory pressures. When the memory state changes, the resource monitor task generates a notification. This notification is used internally by the components to adjust their memory usage according to the memory state. |
| [What is the importance of Fill Factor?](http://www.dotnetfunda.com/interview/exam5623-what-is-the-importance-of-fill-factor.aspx" \o "What is the importance of Fill Factor?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  A Fill Factor is a specification done during the creation of indexes so that a particular amount of space can be left on a leaf level page to decrease the occurrence of page splits when the data has to be accommodated in the future.   When an index is created or rebuilt, the Fill Factor value determines the percentage of space on each leaf-level page to be filled with data, reserving the remainder on each page as free space for future growth.   Fill Factor specifies a percentage that indicates how much the Database Engine should fill each index page during index creation or rebuild.Fill Factor is always an integer valued from 1 to 100. By setting the Fill Factor value, we specify the percentage of space on each page to be filled with data, reserving free space on each page for future table growth.Specifying a Fill Factor value of 70 would implies that 30 percent of each page will be left empty, providing space for index expansion as data is added to the underlying table.The empty space is reserved between the index rows rather than at the end of the index.   The Fill Factor option is designed for improving index performance and data storage. |
| [Considering SELECT statement, in which order the query clauses are logically processed?](http://www.dotnetfunda.com/interview/exam5672-considering-select-statement-in-which-order-the-query-clauses-are-logicall.aspx" \o "Considering SELECT statement, in which order the query clauses are logically processed?)  Posted by: [Akshayblevel](http://www.dotnetfunda.com/profile/akshayblevel.aspx)  The clauses are logically processed in following order:  1. FROM  2. WHERE  3. GROUP BY  4. HAVING  5. SELECT  6. ORDER BY |
| [What is Column Store Index?](http://www.dotnetfunda.com/interview/exam6030-what-is-column-store-index.aspx" \o "What is Column Store Index?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Column Store Index store columns in data pages as opposed to rows which was store in Row Store architecture. In ordinary index, rows are stored in disk pages but with column store index, columns are stored in separate set of the disk pages, and so it is faster. The query optimizer considers the column store index as a data source for accessing data just like it considers other indexes when creating a query  plan. It is optimized for the improved and fast warehouse queries processing. Since in this case there is no need to read all the columns of a table, hence it provides significant savings in disk I/O and more data can fit into memory.   In Column Store approach, data is analyzed by columns. So, the lower the data cardinality i.e. the more repeating values a column has, the higher its compression rate will be. It uses the Vertipaq compression engine technology (it is also the compression engine in Power Pivot) to store columns than traditional  indexes. In Row Store approach, all indexed data from each row is put together on a single page, and data in each column is spread across all pages in an index. In a column-store index, the data from each column is kept together so each data page contains data only from a single column. |
| [What is Data Quality Services (DQS)?](http://www.dotnetfunda.com/interview/exam6052-what-is-data-quality-services-dqs.aspx" \o "What is Data Quality Services (DQS)?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  DQS is a knowledge-driven data cleansing solution that ensures high quality data, improves accuracy, data consistency and resolve problems cause by bad data entry in BI or data warehouse or OLTP systems.   It helps business user or a non-database professional to create, maintain and execute their organization’s data quality operations with minimal setup or preparation time and with excellent quality.   It improves the data quality by creating a Knowledge Base (KB) about the data and then clean the data based on the knowledge in the knowledge base.   It has been introduce in SQL Server 2012 |
| [What are the steps DQS adopts to clean the data?](http://www.dotnetfunda.com/interview/exam6053-what-are-the-steps-dqs-adopts-to-clean-the-data.aspx" \o "What are the steps DQS adopts to clean the data?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The DQS knowledge-driven solution uses two fundamental steps to cleanse data:   - Builds a Knowledge base through the knowledge management process   - Changes to be done (if needed for the Knowledge semantics to satisfy) in the source data based on the knowledge in the KB. These are done through a data quality project. |
| [Explain DQS server](http://www.dotnetfunda.com/interview/exam6054-explain-dqs-server.aspx" \o "Explain DQS server)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The DQS server is implemented as three SQL Server catalogs that we can manage and monitor in the SQL Server Management Studio. They are   1. DQS\_MAIN  2. DQS\_PROJECT  3. DQS\_STAGING\_DATA   DQS\_MAIN includes DQS stored procedures, the DQS engine, and published knowledge bases.   DQS\_PROJECT includes data that is required for knowledge base management and DQS project activities.   DQS\_STAGING\_DATA is the staging database where the source data is dumped for performing DQS operations and then export the processed data.   The source database that contains the data to be analyzed must also be in the same SQL Server instance as the DQS server. |
| [Explain DQS client](http://www.dotnetfunda.com/interview/exam6055-explain-dqs-client.aspx" \o "Explain DQS client)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It is a standalone application, designed for data stewards and DQS administrators that help to perform knowledge management, domain management, matching policy creation, data cleansing, matching, monitoring, data quality projects, and administration in one user interface.   The client application can install and run on the same computer as the DQS Server or remotely on a separate computer. |
| [Explain Knowledge Base Management in DQS](http://www.dotnetfunda.com/interview/exam6056-explain-knowledge-base-management-in-dqs.aspx" \o "Explain Knowledge Base Management in DQS)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It is the central part of DQS client application. We can specify the rules that DQS will apply when validating data and the action taken when those rules are violated. As they capture the organizational knowledge, so they are term as knowledge base. Basically they are the rules define for the domains.   The KB contains Domains which is a component of Data Quality. For example a Country Domain can be such that it should not contain any abbreviated stuff and the length of the country must be greater than 3 letters. Now we can have this domain in our knowledge base say CountryKB. Typically, a single KB can have multiple domain values and for every domain we can have rules and validations apply for them. Domains can be either single valued or compound (consists of multiple fields). |
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| [Tell me something about Data Quality Projects](http://www.dotnetfunda.com/interview/exam6057-tell-me-something-about-data-quality-projects.aspx" \o "Tell me something about Data Quality Projects)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It uses Knowledge Base (KB) for improving the quality of the source data by performing data cleansing and data matching activities and finally exports the resultant data to a SQL Server database or a .csv file   A Data quality project can be created either as a cleansing project or a matching project to perform respective activities and can perform the operation on the same KB.  Cleansing is that KB application that refines the source data in the KB.   Matching is that KB application that performs matching activity based on matching policy in a knowledge base to prevent data duplication by identifying exact and approximate matches, and thereby helps to remove duplicate data. |
| [Name some of the benefits of Data Quality Project](http://www.dotnetfunda.com/interview/exam6064-name-some-of-the-benefits-of-data-quality-project.aspx" \o "Name some of the benefits of Data Quality Project)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  I. Helps us to perform data cleansing operation on the KB   II. Helps us to perform data matching operation on the source data by using the matching policy in a knowledge base.   III. Provides an interactive GUI for doing the above operations.   IV. Helps to export the resultant cleaned / matched data to the SQL Server database or to a .csv file.   V. Helpful for a data steward/non-data base user/IT professional |
| [What does DQS Activity Monitoring do?](http://www.dotnetfunda.com/interview/exam6065-what-does-dqs-activity-monitoring-do.aspx" \o "What does DQS Activity Monitoring do?)  Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It covers usage and activities against Knowledge Bases, tells the status of the KB or Data Quality projects, the type of activities performed, the start and end time of the activities etc. There are also some filtering options by which we can filter the records. |
| [How to Create Database and Tables insert,edit,Delete using Procedure?](http://www.dotnetfunda.com/interview/exam6130-how-to-create-database-and-tables-inserteditdelete-using-procedure.aspx" \o "How to Create Database and Tables insert,edit,Delete using Procedure?)  Posted by: [Jayakumars](http://www.dotnetfunda.com/profile/jayakumars.aspx)  I have post the interview QA for SQl   Answer :   Create Proc Sp\_GenrateDMLinSQL  as  USE master  Create Database Temp\_2012    --USE Temp\_2012  Create Table Tbl\_Test  (  Id int primary key identity(1,1),  Ename varchar(200)  )  USE Temp\_2012  --insert Query  Insert into Tbl\_Test values('Jehovah Jireh');  Insert into Tbl\_Test values('Jehovah Ruffa');  Insert into Tbl\_Test values('Jehovah Raffa');  Insert into Tbl\_Test values('Jehovah Nissi');  Insert into Tbl\_Test values('Jayakumar');  Insert into Tbl\_Test values('Test');  USE Temp\_2012  --Update Query  Update Tbl\_Test set Ename='Jesus Never Fail' where Id=5;  USE Temp\_2012  --Delete Query  Delete from Tbl\_Test where Id=6; |
| [We have two tables one is employee and another one is City. Employee table has empCityID column which is a foreign key of city table's CityID. Write a query such that all cities should come and count of employees in each city and result should be in descending order of number of employees in each city. If no employee in particular city then it should come with zero. The table is as follows: City Table --------------- cityID cityName 1 Chennai 2 Mumbai 3 New Delhi 4 Kolkatta EmployeeTable --------------------- empID empName empCity 1 Naga 1 2 Siva 1 3 Shankar 2 4 Sundar 3 5 Kevin 1 6 Rajesh 1 7 Karthick 2 8 John 2 9 Shah 3 10 Lal 3 11 Paul 3 12 Zinda 3](http://www.dotnetfunda.com/interview/exam6224-we-have-two-tables-one-is-employee-and-another-one-is-city-employee-table.aspx" \o "We have two tables one is employee and another one is City. Employee table has empCityID column which is a foreign key of city table's CityID. Write a query such that all cities should come and count of employees in each city and result should be in descending order of number of employees in each city. If no employee in particular city then it should come with zero. The table is as follows: City Table --------------- cityIDcityName 1Chennai 2Mumbai 3New Delhi 4Kolkatta  EmployeeTable --------------------- empIDempNameempCity 1Naga1 2Siva1 3Shankar2 4Sundar3 5Kevin1 6Rajesh1 7Karthick2 8John2 9Shah3 10Lal3 11Paul3 12Zinda3)  Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  select COUNT(e.empCity) as TotalNoofEmp,c.cityName from  dbo.city c left outer join dbo.Employees e  on e.empCity = c.cityID  group by c.cityID,c.cityName  order by COUNT(e.empCity) desc  Explanation:  ----------------  The first point to be kept in mind is all cities should come, irrespective of employees.  So we should go for outer join. (Inner join is used only for matching records).  In our example the City Kokatta does not have any employees. As per left outer join concept, the all the rows from table which is in left hand side of keyword "left outer join " should come and the matching rows from right hand side of the keyword "left outer join " will come.   The second point is, we total number of employees for each city. To achieve this we must go for group by clause, so that we can get the group of employees with respect to city. The keyword count gives the total number of employees.   In this line I am using Left outer join between two tables based on EmpCity which is the common column between these two tables.   from dbo.city c left outer join dbo.Employees e  on e.empCity = c.cityID  I have used alias name for City and Employees table to refer or get the columns of each table.   group by c.cityID,c.cityName  In above line I am grouping employees by citywise. Here the important point to be notes is I am grouping with cityId column of City table not with employee table. Because for non matching records of cityID of Employee's table will not have value.   In the following line I am soring by number of count using Orderby clause  order by COUNT(e.empCity) desc   Finally the select clause will return the result set.   select COUNT(e.empCity) as TotalNoofEmp,c.cityName  The output will be   TotalNoofEmp cityName  5 New Delhi  4 Chennai  3 Mumbai  0 Kolkatta |
| [I have the following EmployeeMaster table in Test database. empID empName empStatus 1 Naga A 2 Sundar A 3 Siva A 4 Shankar A 5 Kevin NULL 6 Kumar I In Empstatus column we are having four Active employees,one inactive employee and one employee without any status that is NULL. If I run the following query, how many rows will be returned by SQL Server? select \* from EmployeeMaster where empStatus <> 'A'](http://www.dotnetfunda.com/interview/exam6281-i-have-the-following-employeemaster-table-in-test-database-empid-empnam.aspx" \o "I have the following EmployeeMaster table in Test database.  empIDempNameempStatus 1NagaA 2SundarA 3SivaA 4ShankarA 5KevinNULL 6KumarI   In Empstatus column we are having four Active employees,one inactive employee and one employee without any status that is NULL.   If I run the following query, how many rows will be returned by SQL Server?  select * from EmployeeMaster where empStatus <> 'A')  Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [Get the records that has the 3rd maximum value of the given table. The following is a Student's Marks table. Stu\_Id Stu\_Name Stu\_Marks 1 Naga 98 2 Ram 95 3 Kumar 92 4 Sundar 94 5 Siva 90 6 Bharath 92 7 Ganesh 97 8 Vinod 96 9 Laksh 93 10 Sarath 88 11 Kellis 96 Write a query that prints the students who scored 3rd maximum marks in the given table.](http://www.dotnetfunda.com/interview/exam6291-get-the-records-that-has-the-3rd-maximum-value-of-the-given-table-the-foll.aspx" \o "Get the records that has the 3rd maximum value of the given table. The following is a Student's Marks table.  Stu_IdStu_NameStu_Marks 1Naga98 2Ram95 3Kumar92 4Sundar94 5Siva90 6Bharath92 7Ganesh97 8Vinod96 9Laksh93 10Sarath88 11Kellis96  Write a query that prints the students who scored 3rd maximum marks in the given table.)  Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  select \* from tbl\_StudentMarks where  Stu\_Marks =  (select MIN(Stu\_Marks) from (  select top 3 Stu\_Marks from tbl\_StudentMarks  order by Stu\_Marks desc) AA)  At first we need to find the 3rd maximum value. So as per this table the thrid maximum value is 96. Two students have scored 96 Marks. So we need to print both rows.   I used two subqueries to obtain the result. In the below statement I am finding the first three top marks.   select top 3 Stu\_Marks from tbl\_StudentMarks  order by Stu\_Marks desc  The above code pritns 98,97,96.  Now I am taking the minimum marks of the above three which is 96 by using the following query.   (select MIN(Stu\_Marks) from (  select top 3 Stu\_Marks from tbl\_StudentMarks  order by Stu\_Marks desc) AA  In the above code I used an alias name called "AA" for intermediate data operation purpose.  Now the minimum marks 96 will be checked with outermost query.   select \* from tbl\_StudentMarks where  Stu\_Marks = 96  At the end of the query we will be geting two rows that is of Vinod and Kellis who scored 96 Marks. |
| [Consider the below table: tbl\_EmployeeEdu NSlNo Empid NYEARPASS SQUALIFICATION MarksGot SGradeObt 1 1 2010 MCA 90 NULL 3 3 2006 MCA 60 NULL 4 4 2007 ME 90 NULL 6 6 2010 MTECH 50 NULL 7 7 2011 BCA 90 NULL 8 8 2009 BCA 50 NULL 9 9 2006 MTECH 60 NULL 11 11 2009 BBA 40 NULL Write a single update query that updates "sGradeObt" column using "MarksgGot" colum with the following condition. Marks >= 80 -- Merit ; Marks >=60 and < 80 --- firstclass ;Marks >=50 and <60 ---Second class ;Marks < 50 failure.](http://www.dotnetfunda.com/interview/exam6301-consider-the-below-table-tblemployeeedu-nslno-empid-nyearpass-squali.aspx" \o "Consider the below table: tbl_EmployeeEdu NSlNo Empid   NYEARPASS   SQUALIFICATION MarksGot     SGradeObt 1          1      2010         MCA                   90     NULL 3          3      2006         MCA                   60     NULL 4          4      2007         ME                   90     NULL 6          6      2010            MTECH   50     NULL 7          7         2011            BCA                   90               NULL 8          8      2009        BCA                   50        NULL 9          9         2006           MTECH   60        NULL 11       11      2009        BBA                   40      NULL Write a single update query that updates \"sGradeObt\" column using \"MarksgGot\" colum with the following condition. Marks >= 80 -- Merit   ; Marks >=60 and < 80 --- firstclass ;Marks >=50 and <60 ---Second class  ;Marks < 50 failure.)  Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  update tbl\_EmployeeEdu set SGradeObt = case WHEN MarksGot >= 80 THEN 'Merit'  WHEN MarksGot >= 60 AND MarksGot < 80 THEN 'First Class'  WHEN MarksGot >= 50 AND MarksGot < 60 THEN 'Second Class'  WHEN MarksGot < 50 THEN 'Failure' END  In the above query I am using update statement with case when statements. Since I need to update all the column in table I didn't use where condition. Using Case When syntax of SQL Server I am assiging the conditions. When MarksGot >= 80 then I am setting the text "Merit" to sGradeObt column. Similarly for First class, Second class and failure conditions |

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| [What is the difference between GetDate() and SysDateTime() in SQL Server 2008?](http://www.dotnetfunda.com/interview/exam6353-what-is-the-difference-between-getdate-and-sysdatetime-in-sql-server-20.aspx" \o "What is the difference between GetDate() and SysDateTime() in SQL Server 2008?) Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  GetDate() and SysDateTime are used to fetch the current datetime of server. But there is a slight difference exists between these two. GetDate() used to get the time upto MilliSeconds where as SysDateTime used to get the time upto NanoSeconds.   If we run the query in Sql Server   SELECT GETDATE() [GetDate], SYSDATETIME() [SysDateTime]  The output will be   GetDate SysDateTime  2012-12-03 11:28:43.500 2012-12-03 11:28:43.5004729 |
| [I have a employe table which has SlNo as Identity column. Currently the identity is 100. Now due to some reason last 50 rows (SlNo 51-100) has been removed. Now write a synatx to reset the identity to 51.](http://www.dotnetfunda.com/interview/exam6354-i-have-a-employe-table-which-has-slno-as-identity-column-currently-the-ide.aspx" \o "I have a employe table which has SlNo as Identity column. Currently the identity is 100. Now due to some reason last 50 rows (SlNo 51-100) has been removed. Now write a synatx to reset the identity to 51.) Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  To Reset the identity we need to use the following statement. But caution to be taken that the identity column should not be the primary key.   **DBCC CHECKIDENT('tbl\_Employee', RESEED, 51)**  On executing the above query the output will be   Checking identity information: current identity value '18', current column value '51'.  DBCC execution completed. If DBCC printed error messages, contact your system administrator. |
| [You have a Studets table as follows. The student table doesn't contains SlNo. You need to create a reoprt with SlNo. Write a query that add SlNo with the result set. The student Master table is : StuID SName Marks S001 Naga 98 S102 Sundar 92 S203 Ganesh 95 S158 John 85 S211 Kumar 90](http://www.dotnetfunda.com/interview/exam6355-you-have-a-studets-table-as-follows-the-student-table-doesn39t-contains.aspx" \o "You have a Studets table as follows. The student table doesn't contains SlNo. You need to create a reoprt with SlNo. Write a query that add SlNo with the result set. The student Master table is :   StuID   SName   Marks   S001   Naga      98    S102   Sundar    92   S203   Ganesh    95   S158   John      85   S211   Kumar     90) Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  We need to use Row\_Number() function to obtain the result. Row\_Number() gives the sequential number of a row within a partition of a result set, starting at 1 for the first row in each partition. The query is   SELECT ROW\_NUMBER() OVER (ORDER BY StuID ASC) AS 'SlNo' ,\* from StudentMaster  I used order by with StudentID. So student id gets ordered in ascending at first and then RowNumber() function will be implemented on the result set.   The output will be   SlNo StuID SName Marks  1 S001 Naga 98  2 S102 Sundar 92  3 S158 John 85  4 S203 Ganesh 95  5 S211 Kumar 90 |
| [I have a table with only one column that too identity column. How can you insert the data? Say for example: CREATE TABLE OnlyIdentity ( NSID int identity(1,1) )](http://www.dotnetfunda.com/interview/exam6356-i-have-a-table-with-only-one-column-that-too-identity-column-how-can-you-i.aspx" \o "I have a table with only one column that too identity column. How can you insert the data?  Say for example:  CREATE TABLE OnlyIdentity (      NSID int identity(1,1) )) Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [You have a Employe table with EmpId, EmpName, EmpAge. There are 5 records as of now. EmpId is a primary key with identity column. Now the identity value is 5. You need to start the identity value from 10 instead of 6. Write the query for that?](http://www.dotnetfunda.com/interview/exam6357-you-have-a-employe-table-with-empid-empname-empage-there-are-5-records.aspx" \o "You have a Employe table with EmpId, EmpName, EmpAge. There are  5 records as of now.  EmpId is a primary key with identity column. Now the identity value is 5. You need to start the identity value from 10 instead of 6. Write the query for that?) Posted by: [Nagasundar\_Tn](http://www.dotnetfunda.com/profile/nagasundar_tn.aspx)  We need to add identity column value explicitly. For that we can use the following query:   Set identity\_insert EmployeMaster on  Insert into EmployeMaster(EmpId, EmpName, EmpAge)  values (10,'Shankar',19)  In the above query I mentioned "Identity\_Insert on" for table name EmployeeMaster. Second I specified all the column names and inserted the values corresponding to tht column. Now we will be having identity value as 10. |

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| [Can you split the one column in to two columns For Ex:FullName:Aswini Aluri It must split into firstname: Aswini. LastName :Aluri](http://www.dotnetfunda.com/interview/exam6540-can-you-split-the-one-column-in-to-two-columns-for-exfullnameaswini-alu.aspx" \o "Can you split the one column in to two columns  For Ex:FullName:Aswini Aluri It must split into firstname: Aswini. LastName :Aluri) Posted by: [Aswinialuri@Gmail.Com](http://www.dotnetfunda.com/profile/aswinialuri@gmail.com.aspx)  create table splitS(FullName NVARCHAR(50))  select LEFT(fullname, CHARINDEX(' ', fullname + ' ') -1),  STUFF(fullname, 1, Len(FullName) +1- CHARINDEX(' ',Reverse(fullname)), '')  from splitS    insert into splitS values('ASWINI ALURI') |
| [ACID rules in sql server?](http://www.dotnetfunda.com/interview/exam6541-acid-rules-in-sql-server.aspx" \o "ACID rules in sql server?) Posted by: [Aswinialuri@Gmail.Com](http://www.dotnetfunda.com/profile/aswinialuri@gmail.com.aspx)  Atomicity  Consistency  Isolation  Durablity   Atomicity:  Modification on the data in the database either fail or succeed. The beginning of such a modification starts with a transactionand ends when a transaction finishes (either by a commit or arollback). A software crash entails an implicit rollback.  Consisyency:  Modification on the data in the database either fail or succeed. The beginning of such a modification starts with a transactionand ends when a transaction finishes (either by a commit or arollback). A software crash entails an implicit rollback.   Isolation:  One transaction does not interfere with another. The 'executor' of a transaction has the feeling that he has the entire database for himeself.  Durablity:  A commited transaction will not be lost. |
| [Difference between IDENT\_CURRENT ,@@IDENTITY and SCOPE\_IDENTITY ?](http://www.dotnetfunda.com/interview/exam6547-difference-between-identcurrent-identity-and-scopeidentity.aspx" \o "Difference between IDENT_CURRENT ,@@IDENTITY and SCOPE_IDENTITY ?) Posted by: [Senthilstayss](http://www.dotnetfunda.com/profile/senthilstayss.aspx)  1.When we use the IDENT\_CURRENT , it will return the last identity value generated for a specific table in any session and any scope.  2.When we use the @@IDENTITY , it will return the last identity value generated for any table in the current session, across all scopes.  3.When we use the SCOPE\_IDENTITY, it will return the last identity value generated for any table in the current session and the current scope. |
| [write a query to select second highest salary of the employee from the employee table?](http://www.dotnetfunda.com/interview/exam6554-write-a-query-to-select-second-highest-salary-of-the-employee-from-the-empl.aspx" \o "write a query to select second highest salary of the employee from the employee table?) Posted by: [Peeyushkumar2](http://www.dotnetfunda.com/profile/peeyushkumar2.aspx)  select \* from employee   select top 1 salary from  (select top 2 salary from employee order by(salary) desc )a  order by(salary)    It first select top 2 salary from table and arrange them in descending order now we have the second highest salary in second number then select top 1 by ascending it that is the second highest salary. |
| [why we are using distinct keyword in sql server?](http://www.dotnetfunda.com/interview/exam6556-why-we-are-using-distinct-keyword-in-sql-server.aspx" \o "why we are using distinct keyword in sql server?) Posted by: [Aswinialuri@Gmail.Com](http://www.dotnetfunda.com/profile/aswinialuri@gmail.com.aspx)  The DISTINCT keyword in SQL allows you to select only those records that contain unique values for the columns requested in a SELECT statement. Duplicate values are ignored and only displayed once.  Ex:- using emp table  Emp ID EmpName  1 Aswini A  2 Aswini A  3 Aluri    then  select distinct EmpName from emp  then it displays  only  EmpName  Aswini A  Aluri |
| [Can we provide more than one primary key to a table?](http://www.dotnetfunda.com/interview/exam6565-can-we-provide-more-than-one-primary-key-to-a-table.aspx" \o "Can we provide more than one primary key to a table?) Posted by: [Kmandapalli](http://www.dotnetfunda.com/profile/kmandapalli.aspx)  NOTE: This is objective type question, Please click question title for correct answer. |
| [What is FillFactor?](http://www.dotnetfunda.com/interview/exam6600-what-is-fillfactor.aspx" \o "What is FillFactor?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It defines the amount of empty space to leave in each data page of an index when it is  created. This is only applied at the time an index is created or rebuilt. |
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| [What is PAD\_INDEX?](http://www.dotnetfunda.com/interview/exam6601-what-is-padindex.aspx" \o "What is PAD_INDEX?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It specifies whether the FILLFACTOR for the index should be applied to the nonleaf  data pages for the index. The PAD\_INDEX option is used when data manipulation  language operations that lead to excessive nonleaf level page splitting need  to be mitigated. |
| [What is the purpose of IGNORE\_DUP\_KEY?](http://www.dotnetfunda.com/interview/exam6602-what-is-the-purpose-of-ignoredupkey.aspx" \o "What is the purpose of IGNORE_DUP_KEY?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Changes the behavior when duplicate keys are encountered when performing  inserts into a table. When enabled, rows violating the key constraint will fail. When  the default behavior is disabled, the entire insert will fail. |
| [What is the use of sys.indexes?](http://www.dotnetfunda.com/interview/exam6603-what-is-the-use-of-sysindexes.aspx" \o "What is the use of sys.indexes?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The sys.indexes catalog view provides information on each index in a database. For every table, index, or table-valued function there is one row within the catalog view. This provides a full accounting of all indexes in a database.   The information in sys.indexes is useful in a few ways.   First, the catalog view includes the name of the index. Along with that is the type of the index, identifying whether the index is clustered, nonclustered, and so forth.   Along with that information are the properties on the definition of the index. This includes the fill factor, filter definition, the uniqueness flag, and other items that were used to define the index. |
| [What is the purpose of sys.index\_columns catalog view ?](http://www.dotnetfunda.com/interview/exam6604-what-is-the-purpose-of-sysindexcolumns-catalog-view.aspx" \o "What is the purpose of sys.index_columns catalog view ?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The sys.index\_columns catalog view provides a list of all of the columns included in an index. For each key and included column that is a part of an index, there is one row in this catalog view. For each of the columns in the index, the order of columns is included along with the order in which the column is sorted in the index. |
| [What is the importance of sys.xml\_indexes?](http://www.dotnetfunda.com/interview/exam6605-what-is-the-importance-of-sysxmlindexes.aspx" \o "What is the importance of sys.xml_indexes?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The catalog view sys.xml\_indexes is similar to sys.indexes. This catalog view returns one row per XML index in a database.   The view includes information on whether the XML index is a primary or secondary XML index. If the XML index is a secondary XML index, the catalog view includes a type for the secondary index. |
| [What is the purpose of sys.column\_store\_dictionaries ?](http://www.dotnetfunda.com/interview/exam6606-what-is-the-purpose-of-syscolumnstoredictionaries.aspx" \o "What is the purpose of sys.column_store_dictionaries ?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The sys.column\_store\_dictionaries catalog view is one of the new catalog views that supports columnstore indexes. This catalog view returns one row for each column in a columnstore index. The data describes the structure and type of dictionary built for the column. |
| [What is the benefit of Column Store Index over Row Store Index?](http://www.dotnetfunda.com/interview/exam6607-what-is-the-benefit-of-column-store-index-over-row-store-index.aspx" \o "What is the benefit of Column Store Index over Row Store Index?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Traditionally, indexes are stored in rowbased organization, also known as row store. This form of storage is extremely efficient when one row or a small range is requested. When a large range or all rows are returned, this organization can become inefficient.   The column store index favors the return of large ranges of rows by storing data in column-wise organization. When we create a column store index, we typically include all the columns in a table.  This ensures that all columns are included in the enhanced performance benefits of the column store organization. In data warehousing scenarios, often less than 15 percent of the columns in an index are needed for the  results of a query |
| [Why column Store Index are suitable for large data warehouses?](http://www.dotnetfunda.com/interview/exam6608-why-column-store-index-are-suitable-for-large-data-warehouses.aspx" \o "Why column Store Index are suitable for large data warehouses?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Data modifications like INSERT, UPDATE, and DELETE statements, are disallowed in the case of Column Store Index. For this reason, column store indexes are ideally situated for large data warehouses where the data is not changed that  frequently. |

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| [Explain briefly about RowLevel Compression](http://www.dotnetfunda.com/interview/exam6609-explain-briefly-about-rowlevel-compression.aspx" \o "Explain briefly about RowLevel Compression) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  With row-level compression, an index compresses each record at the row level. When row-level compression is enabled, a number of changes are made to each record. The metadata for the row is stored in an alternative format that decreases the amount of information stored on each column, but because of another change it may actually increase the size of the overhead. The main changes to the records are numerical data  changes from fixed to variable length and blank spaces at the end of fixed-length string data types that are not stored. Another change is that null or zero values do not require any space to be stored. |
| [Explain DBCC EXTENTINFO](http://www.dotnetfunda.com/interview/exam6610-explain-dbcc-extentinfo.aspx" \o "Explain DBCC EXTENTINFO) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  The DBCC command DBCC EXTENTINFO provides information about extents allocations that occur within a database. The command can be used to identify how extents have been allocated and whether the extents being used are mixed or uniform.For every extent allocation, there will be one row in the results. Since extents are comprised of eight pages, there can be as many as eight allocations for an extent when there are single page allocations, such as when mixed extents are used. When uniform extents are used, there will be only one extent allocation and one row returned for the extent.DBCC EXTENTINFO can be extremely useful for investigating how pages are allocated to tables and indexes.Using the DBCC command can be extremely useful when trying to investigate issues related to fragmentation and how pages have been allocated. |
| [What is SOUNDEX function?](http://www.dotnetfunda.com/interview/exam6613-what-is-soundex-function.aspx" \o "What is SOUNDEX function?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It compares the field values that sounds like the supplied input word.  SQL> Select \* From tblPlayers  2 Where Soundex(BELONGSTO) = Soundex('Lindia');    PLAYERID PLAYERFIRS PLAYERLAST BELONGSTO DOB FEEPERMATCH  ---------- ---------- ---------- ---------- --------- -----------  11 P Chopra India 14-FEB-98  1 A Raman India 20-DEC-84 2000  2 B Kadir India 01-JAN-80 1000  3 C Nadir India 21-APR-00 3000  4 D Das India 11-NOV-80 500  5 E Punchkar India 14-FEB-80 12000  6 rows selected. |
| [What is the purpose of ABS function?](http://www.dotnetfunda.com/interview/exam6614-what-is-the-purpose-of-abs-function.aspx" \o "What is the purpose of ABS function?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It returns absolute value.  e.g   Select Abs(-95.45)   Result: 95.45 |
| [What is the purpose of CEIL/CEILING?](http://www.dotnetfunda.com/interview/exam6615-what-is-the-purpose-of-ceilceiling.aspx" \o "What is the purpose of CEIL/CEILING?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  It returns the smallest integer >= the specified numeric expression.   e.g. Select CEILING(-105.56)   Result: -105 |
| [What is the purpose of FLOOR function?](http://www.dotnetfunda.com/interview/exam6616-what-is-the-purpose-of-floor-function.aspx" \o "What is the purpose of FLOOR function?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  Returns the largest integer <= the specified numeric expression   e.g Select FLOOR(-34.6789)   Result: -35 |
| [What is the purpose of Fn\_helpcollations() ?](http://www.dotnetfunda.com/interview/exam6635-what-is-the-purpose-of-fnhelpcollations.aspx" \o "What is the purpose of Fn_helpcollations() ?) Posted by: [Niladri.Biswas](http://www.dotnetfunda.com/profile/niladri.biswas.aspx)  To get a list of all sql server collations we can execute "Fn\_helpcollations() " system function. This will return name and description of various collations.   e.g.  select \* from fn\_helpcollations()  **Result(Partial)**   **name description**  Albanian\_BIN Albanian, binary sort  Albanian\_BIN2 Albanian, binary code point comparison sort  Albanian\_CI\_AI Albanian, case-insensitive, accent-insensitive, kanatype-insensitive, width-insensitive  Albanian\_CI\_AI\_WS Albanian, case-insensitive, accent-insensitive, kanatype-insensitive, width-sensitive  Albanian\_CI\_AI\_KS Albanian, case-insensitive, accent-insensitive, kanatype-sensitive, width-insensitive  Albanian\_CI\_AI\_KS\_WS Albanian, case-insensitive, accent-insensitive, kanatype-sensitive, width-sensitive |