

Bumer Group

①

→ use of identity →

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→ Store procedure in SQL :-

- Creating a basic procedure.
- Executing Stored Procedures.
- making changes to a Procedure.
- Deleting a procedure

A group of SQL statements grouped together under a single heading

USE movies → database Name

GO → begin new batch.

ALTER / CREATE PROC spfilmlist

AS

Begin

Select filmname, filmreleasedate
from hbfilm,

Order by

filmName DESC

END.

→ Parameter :-

→ Parameter Name Start with @

Create PROC spfilmlist (Criteria (@minlength AS INT))
AS

→ Begin

EXECUTE Spfilmlist ;

To Execute Stored procedure.

#

Journey start from 8 feb

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MySQL 2014

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Parameter →

Login →

Password →

→ Analysis of Project

→ Assigned Project, → Table 1.

→ Employee holiday

→ Employee

→ Object Explorer.

→ Security

System databases

→ master

→ model

→ msdb

→ tempdb

→ SQL Data types :-

→ To store the data so we have required which type of data it is.

• Numeric → age, mobile no

→ Integer, Decimal, SmallInt, BigInt

→ REAL → All positive or negative.

• Character → (String)

CHAR, VARCHAR, NCHAR, NVARCHAR.

→ Only Valueable Value Show

• Temporal →

DATE,

TIME

Miscellaneous → BTT SQL-VARIANT
 TABLE UNIQUEIDENTIFIER XML
 Binary data types Large object Data type.
 ↗ Integrity Constraints in SQL :-
 ↗ A Set of Rules to maintain the quality of information.
 When data is insert, update, delete.

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UNIQUE
 DEFAULT
 NOTNULL
 PRIMARY KEY
 CHECK
 FOREIGN KEY
 ↗ By default values are present.

→ Organizing, managing and retrieving data stored by relational database.

→ To do a CRUD operation.

Components of SQL → DDL Statements

→ DML Statements

→ DCL OR TCL Statements.

DATATYPES IN SQL (full explanation)

→ CHAR : Length vary b/w 1 to 2000 bytes.

→ NAME CHAR (10) VARCHAR

↓
fixed data Variable data store.

→ VARCHAR2

b/w 1 to 4000 bytes

→ LONG → up to 2 GB.

NUMBER(p,s) : p is precision and s is scale.

Precision

Scale

↓

↓

Varies 1 to 38 digits

-84 to 127

PER NUMBER (2,2)

↓ →

after decimal

Before decimal

Position.

Precision

Salary NUMBER (7,2)



REDMI NOTE 9
AI QUAD CAMERA

DOB DATE

HIRE-DATE DATE

DDL Statements :-

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1. CREATE → table

2. ALTER

3. RENAME → to change the name of the table.

4. TRUNCATE → Remove entire records stored in table.

5. DROP → Remove entire table from the database.

CREATE TABLE TABLE-NAME (

Column-Name datatype (size) constraint) ;

2. ALTER

ALTER Table table-Name

[ADD (column-Name datatype (size) constraint)]

[MODIFY (column-Name datatype (size) constraint)] ;

3. RENAME

RENAME old_table-name to new_table-name ;

4. TRUNCATE

TRUNCATE TABLE table-Name ;

5. DROP

DROP TABLE table-Name ;

→ DDL Statements

CREATE

DROP

RENAME

ALTER

TRUNCATE

→ DML Statement

INSERT

DELETE

UPDATE

SELECT

Insert into table-Name

Update table-Name

DELETE

Delete from table-Name

The command used to save data, Undo/Redo transaction.

COMMIT, ROLLBACK, SAVE TRANSACTION.

Statement -

GRANT

REVOKE).

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Transaction SQL →

used to development of a transactional database.



Standard SQL

[Working with Variables]

Batch or Script

[User-defined functions]

Triggers

[Stored procedures]

→ Working with Variables :-

→ used to store values in memory.

→ T-SQL variable are created with DECLARE command followed by Variable name preceded with @ symbol and data type.

→ By default, the value of declared variable is NULL.
DECLARE @ Variable-name datatype(size);

→ Both the Set and the Select can assign the value to a variable.

→ SET can only set the value of one-variable at a time.

→ SELECT → multiple variables value assign

SET @Variable-name = Value;

SELECT @Variable-name = Value, @Variable-name = Value;

Incrementing Variable ?

→ We perform mathematical operations

(like addition, subtraction and multiplication)

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SET @number = 10;

SET @number = @number + 10;

SET @number -= 10;

→ Addition, Subtraction

→ multiplication

CTE → Common Table Expression :-

It is a temporary named result set that you can reference within a Select, Insert, Update or Delete.

WITH [CTE-Name] (Column1, Column2, ...) AS

CTE-Query

)

→ Easily write and maintain complex queries

Increase Readability and Simplification.

SCRIPT IN SQL SERVER :-

DDL (Create, Alter, Drop, Rename, Truncate)

→ SCRIPT : FILE --> .sql (extension)

BATCH

→ the Code and Statement group Separately make a Single Statement.

→ A batch of a SQL statements is a group of two or more SQL statements or a single SQL statement.

→ Explicit Batch

Two or more SQL statements are separated by Semicolon. ;).

→ Procedure →
If a procedure contains more than one SQL Statement, it is
considered to be a batch.

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→ GO Command :-

→ GO is a SQL Server utilities.

→ It can be executed by any user.

Syntax: GO [Count]

→ the batch will execute the specified number of times.

Control of flow :-

→ BEGIN...END

BREAK

Return

WAITFOR

If...Else

Continue

TRY...CATCH

GO TO

TRY...CATCH

THROW

BEGIN...END

Syntax :-

→ BEGIN

(SQL Statements or Statement Block)

END.

→ If-else : Block

if()

Begin

CSBL

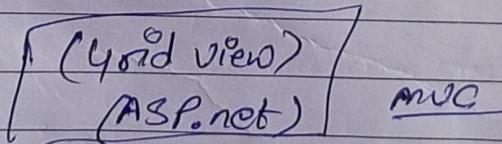
C#

CUI ✓

Exc

(CUI) ✓

HTML



MVC

WEB ✓

COMP ID / Name

→ Demo Project Grid view operation CRUD Rush
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Order processing tools

- C4C
- LEGO Builder

Engineering and design tool

- BTPD (S4)
- Solid Edge / PLM / AutoCAD

HR and admin tools

- Webtel → Attendance
- Horizon

Financial

- SAP BI
- SAP Concur → Salary
- S4 HANA

E-way Bill / GST filing tools

- clear Tax.

Group reporting tools

- DWH / IAL

→ Business Partner

- Supplies / vendor master
- Customer master
- Employee master

→ functions

→ user-defined functions (UDFs)

are routines that take and accept parameters, perform an action (complex calculation) and return the result of that action as a value.

Why?

fast execution.

→ modular programming

→ Reduce Network traffic.

→ Create program

→ Store in database

→ Call any number of times.

Types →

→ System function by default

→ scalar

→ table.

Shared Preferences

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Employee details

Step 1.

→ Holiday Master
 Two types of Holiday 1. Personal Year
 2. Common

- Employee Name,
 - Direct Supervisor,
 - Reason,
 - Start date,
 - End date,
 - Total days.
- Save

Delete Holidays

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Project Assignment

Mobile project

functions

Tables

Mobile application

Mobile application

Mobile application

Mobile application

Mobile application

Mobile application

functions

Stored procedure

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→ Date-to-table //

Days-to-Table

→ Sp: ExtendProjectdate

Project Name	Start Date	End Date	Emp Id
--------------	------------	----------	--------

→ We extend our project so

Start date → End date

Programming part

while ()



→ Sp: insert SetHoliday,

→ Sp: insert SetHoliday

Sp: Extend project

→ It will happen due to
Extend of dates b

CH, PH

Sp: Insert

→ Sp: Insert Common Holidays

Table

→ Assigned project

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to store the

- Emp Id
- Emp Name
- Project Code, name
- Assigned date, End date,
- Operator Name
- Last Edit Time.

(30)

-P

Table - Emp Holiday

EmpId →
 EmpName, Department, HolidayStart Date, HolidayEnd Date, Number of Holiday,

100 → 100

CAT

end → start

Table Holiday Calendar

- Date of Holiday
- Day of week

Start → W
 end → TUE

CH
 PH

Project completion
days

Procedure

Data

table

if Saturday, Sunday come

SpInsert - Set Holidays

Tbl - Holiday calendar

date - free day

SpInsert - Common Holidays

insert init and

SpExtend project

add one day

in table
from given task and then extend

According to holidays

→ Insert PH and update the record

→ Insert Common holidays

→ SQL Date function

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- 1. Get Date
- 2. DATEADD

3. DATEDIFF

4. DATE-FORMAT

5. GETDATE

6. DATEPART

7. DAY

8. MONTH

9. YEAR

10. CAST

11. CONVERT

① GetDate →

- Returns CURRENT DATE

Syntax : GETDATE()

Example : Select getdate() as currentdate;

Select MONTH(GETDATE())

Select HOUR(GETDATE());

②

DATEADD →

• Syntax : DATEADD(interval, number, date)

• Select DATEADD(DD, 7, GETDATE()) AS

NEXTWEEK;

- SELECT DATEADD(mm, 7, GETDATE) AS NEXT_SEVEN_MONTH;
- SELECT DATEADD(nn, -1, "") AS " ";
- SELECT DATEADD(yy, 7, GETDATE()) AS NEXT_SEVEN_YEAR;

→ DATEDIFF

→ Will display the date and time b/w two dates.

→ Syntax : DATEDIFF(datepart, startdate, enddate)

Example :

SELECT DATEDIFF(hour, '2019-04-01', '2019-04-02');

→ datepart

SELECT datepart(mm, getdate()) as currenday;

→ CONVERT (any)

→ It will display the date and time in different formats.

Syntax : CONVERT(datatype, expression,

Convert(Coach, getdate());

FORMAT:

to format the date and time.

FORMAT (value, format, culture)

SELECT FORMAT (getdate(), 'dd/mm/yyyy')

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CAST:

Convert a value (of any type) into a specified datatype.

CAST (expression AS datatype [length])

Select CAST (GETDATE() AS varchar)

USE OF CONVERT function:

→ that function converts a value (of any type) into a Specified datatype.

→ Style format

→ mm/dd/yy d = mm.dd.yy yy.mm.dd

101 → mm/dd/yy as Today_date; yy.mm.dd.

8 → dd/mm/yy.

103 → dd/mm/yyyy,

→ Functions in programming:-
→ A function is a block of code that performs a specific task.
→ It usually, "take in" data, process it, and "return" a result.

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→ we can use function over and over again.

→ In SQL Server are useful Objects in SQL Server databases.

→ Can contain In-built function. That perform a variety of tasks.

→ Try and catch Statement are not used in function.

+ Function types

1. User-defined function. → It is created by user.

2. System. → In-built database functions

3-types of user-defined function :-

1. Scalar functions

2. Inline Table Valued function

3. Multi-Statement Table Valued functions.

→ Scalar function is take one or more parameters and return a single (Scalar) value.

↳ any type except text, ntext,
image, cursor and timestamp.

CREATE FUNCTION functionName (Parameter1, Parameter2)

Returns

as

Begin

Statement

End

IN LINE TABLE VALUED FUNCTION :-

Contains a single T-SQL Statement and return a table set.

→ In-line Scalar function
→ It returns a scalar value.

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In-line table Valued function :

→ It returns a table.
→ There is No Begin and end Block.

The table that get returned is determined by the SELECT Command within the function.

→ Multi-Statement table-valued functions.

→ multiple statement is return

CURSOR IN SQL SERVER :-

→ Cursor is a temporary memory of temporary work station.
→ It is used to retrieve a data from a result set one row at a time.

→ It is allocated by Database Server at the time of Performing DML Operations on table by user.

If Types of cursor :-

↳ Implicit cursor ↳ Explicit cursor.

- Default cursor of SQL Server.
 - It is created by user
 - It is used to fetch data

Row by Row.

Methods of Cursor :-

- Next
- Prior
- first,
- last.
- Absolute n.
- Relative n.



SQL Server life cycle :-

1. Declaring Cursor.
2. Opening cursor.
3. fetching cursor.

4. closing cursor.
5. De-allocation cursor.

6. Declaring cursor:

release by defining the SQL Statement.

7. Opening cursor:

→ A cursor is opened for storing data retrieved ~~from~~ from the result set.

8. fetching cursor:

When a cursor is opened, rows can be fetched from the cursor one by one or in a block to do data manipulation.

9. closing cursor:

De-allocation cursor: → To delete cursor definition and release all the system resources associated with it.
→ We use by two ways to close cursor.

- v With cursor Variables.

- g Without cursor Variables.

→ before to use cursor variables we have to declare cursor.

Isolation :-

Without locking - lot of softwares are used.

Locking - lot of locks are used.

Optimistic Locking - lot of locks are used.

Pessimistic Locking - lot of locks are used.

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Working with Cursors in SQL Server

It is a temporary memory or Temporary Work Station. (79)

→ How to declare cursor?

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declare my

SSMS Sql Server management Studio

→ Temporary table :-

→ Temporary table is a database table that exists temporarily on the database server.

Types of Temporary tables :-

① Local Temporary table.

② Global "

Local Temporary tables :-

When we create table than # is used before name of table than it makes local temporary table.

Transaction in SQL Based

→ A transaction is

- Single unit of work.
- Successful only when all data modification

that are made in a transaction are committed and saved in the database permanently.

→ begin transaction is used to start the transaction.

→ Commit transaction is used to stop end permanent save in table.

→ TCL (Transfer Control Language) COMMIT, ROLLBACK, SAVEPOINT

ACID properties :-

A logical unit of work must exhibit four properties, called the atomicity, consistency, isolation and durability.

1. Atomicity → if the transaction has many operations then all should be committed, it means All or None. It manages by transaction manager.

2. Consistency → the sequence of operations must be consistent.

before transaction = After transaction

3. Isolation → each transaction must be executed without knowing what is happening to other transaction.

4. Durability → data must be saved and stored in the database permanently.

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Stored procedure, Transaction processing and Exception Handling

Trim, Rtrim, Ltrim

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L, R trim are used to trim both sides.
Both sides

R trim are used to trim right side.
L trim are used to trim left side.

Common Table Expression (CTE)

→ It provides Temporary Result Set :-

CTE (common Table Expression) → Temporary Result Set

↓ immediately

{ Select
Insert
Update
Delete }

→ Provides we can perform all command on temporary result sets.

→ It can also be used in view.

→ Just we make CTE.

→ SYNTAX :-

With clause.

With Expression name (column1, column2, --)

AS

C

CTE Definition

?

- Using temporary table
- using table variables

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Executive Summary



- Domicile get architecture →

→ In this project trying to

→ In this project trying to