**DATABASE**

* What do you understand By Database.

Ans: A database is an organized collection of structured information, or data, typically stored electronically in a computer system.

* What is Normalization?

Ans: Normalization is the process of minimizing redundancy from a relation or set of relations. Redundancy in relation may cause insertion, deletion, and update anomalies. So, it helps to minimize the redundancy in relations. Normal forms are used to eliminate or reduce redundancy in database tables.

* What is Difference between DBMS and RDBMS?

Ans:

|  |  |
| --- | --- |
| **RDBMS** | **DBMS** |
| Data stored is in table format | Data stored is in the file format |
| Multiple data elements are accessible together | Individual access of data elements |
| Data in the form of a table are linked together | No connection between data |
| Normalisation is not achievable | There is normalisation |
| Support distributed database | No support for distributed database |
| Data is stored in a large amount | Data stored is a small quantity |
| Here, redundancy of data is reduced with the help of key and indexes in RDBMS | Data redundancy is common |

* What do you understand By Data Redundancy?

Ans:Redundancy of Data: Redundancy of data is when the same data has multiple copies across the database or has data which is outdated despite being updated.

* What is DDL Interpreter?

Ans:DDL Interpreter DDL expands to Data Definition Language. DDL Interpreter as the name suggests interprets the DDL statements such as schema definition statements like create, delete, etc. The result of this interpretation is a set of a table that contains the meta-data which is stored in the data dictionary.

* What is DML Compiler in SQL?

Ans:DML compiler translates DML statements in a query language into a low-level instruction and the generated instruction can be understood by Query Evaluation Engine. DML Compiler: It converts the DML (Data Manipulation Language) Instructions into Machine Language (low-level language)

* What is SQL Key Constraints writing an Example of SQL Key Constraints.
* Ans: [NOT NULL](https://www.w3schools.com/sql/sql_notnull.asp) - Ensures that a column cannot have a NULL value
* [UNIQUE](https://www.w3schools.com/sql/sql_unique.asp) - Ensures that all values in a column are different
* [PRIMARY KEY](https://www.w3schools.com/sql/sql_primarykey.asp) - A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table
* [FOREIGN KEY](https://www.w3schools.com/sql/sql_foreignkey.asp) - Prevents actions that would destroy links between tables
* [CHECK](https://www.w3schools.com/sql/sql_check.asp) - Ensures that the values in a column satisfies a specific condition
* [DEFAULT](https://www.w3schools.com/sql/sql_default.asp) - Sets a default value for a column if no value is specified
* [CREATE INDEX](https://www.w3schools.com/sql/sql_create_index.asp) - Used to create and retrieve data from the database very quickly
* What is save Point? How to create a save Point write a Query?

Ans: A SAVEPOINT is a point in a transaction in which you can roll the transaction back to a certain point without rolling back the entire transaction. Syntax for Savepoint command: SAVEPOINT SAVEPOINT\_NAME; This command is used only in the creation of SAVEPOINT among all the transactions.

* What is trigger and how to create a Trigger in SQL?

Ans: An SQL trigger is a database object that is associated with a table and automatically executes a set of SQL statements when a specific event occurs on that table.

*create trigger [trigger\_name]*

*[before | after]*

*{insert | update | delete}*

*on [table\_name]*

*[for each row]*

*[trigger\_body]*

**Explanation of Syntax**

1. Create trigger [trigger\_name]: Creates or replaces an existing trigger with the trigger\_name.
2. [before | after]: This specifies when the trigger will be executed.
3. {insert | update | delete}: This specifies the DML operation.
4. On [table\_name]: This specifies the name of the table associated with the trigger.
5. [for each row]: This specifies a row-level trigger, i.e., the trigger will be executed for each affected row.
6. [trigger\_body]: This provides the operation to be performed as the trigger is fired