**Q.1) WHAT DO YOU UNDERSTAND BY DATABASE?**

**ANS:**

-SQL database or Relational database is a collection of highly structured tables, where each row reflects a data entity, and every column define a specific information field.

-Relational database are built using the structured query language (SQL) to create, store, update, and retrieve data.

-A database is a collection of organized data that can be easily accessed, updated/modified or controlled.

**Q.2) WHAT IS NORMALIZATION?**

**ANS:**

-Normalization is the process of organizing data in a database.

-Normalization is the process to eliminate data redundancy and enhance data integrity in the table.

-It is a multi-step process that sets the data into tabular form and removes the duplicate data from the relational database tables.

**\*Types of Normalization**

-1NF (First Normal Form).

-2NF (Second Normal Form).

-3Nf (Third Normal Form).

-BCNF (By Code Normal Form).

**Q.3) WHAT IS Difference between DBMS and RDBMS?**

**ANS:**

|  |  |
| --- | --- |
| **DBMS** | **RDBMS** |
| - DBMS stand for Database Management System. | -RDBMS stand for Relational Database Management System. |
| -Data is stored in small quantity. | -Data is stored in large amount. |
| -DBMS support only single user. | -RDBMS support multiple users. |
| -Client and Server Architecture is not supported. | -Client and Server Architecture is supported. |
| -No connection between data. | -Data in the form of table are linked together. |
| -The software and hardware requirement are low. | -The software and hardware requirement are high. |
| -Normalization is not supported. | -Normalization is supported. |
| -EX: oracle, SQL, server. | EX:XML, Microsoft Access. |

**Q.4) WHAT IS MF COD RULE OF RDBMS SYSTEM?**

**ANS:**

-MF cod’s rule is a set of thirteen rules that defines a database to be a correct Relational Database Management System.

-If a Database follows cod’s rules, it is a called True Relational Database Management System.

-These rules are made to ensure data integrity, consistency, and usability.

-These set of rules basically signifies the characteristics and requirements of a relational Database Management System.

**Q.5) What do you understand by Data Redundancy?**

**ANS:**

-Data Redundancy is the reptation of the same data in multiple places within a database.

-This problem arises when a database is not normalized.

-Data redundancy can occur by accident but is also done for backup and recovery purpose.

**Q.6) WHAT IS DDL INTERPRITER?**

**ANS:**

-DDL stand for DATA DEFINATION LANGUAGE.

-It represents the DDL Instruction and stores the record in a data dictionary in the table containing meta-data.

-CREATE, DROP, ALTER, TRUNCATE ARE DDL statements.

**Q.7) WHAT IS DML COMPILER IN SQL?**

**ANS:**

-DML stand for Data Manipulation Language.

-It translates DML statements in a query language into low level instruction.

**Q.8) WHAT IS SQL KEY CONSTRAINT? WRITING AN EXAMPLE OF SQL KEY CONSTRAINT.**

**ANS:**

-Constraint are used to specify rules for data in a table.

-Constraint are used to limit the type of data that can go into a table.

-Constraint can be column level or table level.

**\*Types:**

-NOT NULL

-UNIQUE

-PRIMARY KEY

-FOREGN KEY

-CHECK

-DEFAULT

-CREATE INDEX

**\*EX. OF NOT NULL CONSTRAINT:**

-CREAT TABLE person

(

ID int NOT NULL,

Last Name varchar (40),

First Name varchar (40),

AGE int

);

**Q.9) What is save Point? How to create a save Point write a Query?**

**ANS:**

-Save Point offer a mechanism to rollback portion of transactions.

-You can create savepoint by using the SAVE TRANSACTION savepoint\_name statement.

-Later you run a ROLLBACK TRANSACTION savepoint \_name statement to rollback to the savepoint instead of rolling back to the start of the transaction.

-Savepoints are useful in situations where errors are unlikely to occur.

**Q.10) What is trigger and how to create a Trigger in SQL?**

**ANS:**

-Trigger is a special type of stored procedure that automatically runs when an event occurs in the database server.

-DML trigger run when a user tries to modify data through a Data Manipulation Language (DML) event.

-DML events are INSERT, UPDATE, or DELETE statements on a table or view.

**\*SYNTEX**:

DELIMETER $$

CREATE trigger demo AFTER INSERT on table1

For EACH ROW

BEGIN

Insert into viewtable (id, name, action)

VALUES (new.id, new. Name, ‘Record Inserted’);

END