**Module-4 Database**

**1) What is RDBMS?**

* its store data in the form of tables(rows and columns), with most commercial relational database management systems using Structured Query Language (SQL) to access the database.

**2) What is SQL?**

* is a domain-specific language used in programming and designed for managing data held in a relational database management system (RDBMS).

**3) Write SQL Commands**

* DDL – Data Definition Language
* DML – Data Manipulation Language
* DCL – Data Control Language
* DQL – Data Query Language

**4) What is join?**

* A JOIN clause is used to combine rows from two or more tables, based on a related column between them.

**5) Write type of joins.**

* INNER JOIN: returns rows when there is a match in both tables.
* LEFT JOIN: returns all rows from the left table, even if there are no matches in the right table.
* RIGHT JOIN: returns all rows from the right table, even if there are no matches in the left table.
* FULL JOIN: returns rows when there is a match in one of the tables.

**6) How Many constraint and describes it self**

* **NOT NULL: -** Ensures that a column **cannot have NULL values**.
* **UNIQUE: -** Ensures all values in a column are **unique (no duplicates)**.
* **PRIMARY KEY: -** A combination of **NOT NULL + UNIQUE**.
* Identifies each row in a table uniquely.
* **FOREIGN KEY: -** Creates a link between two tables.
* Ensures the value in one table matches a value in another table’s primary key.
* **CHECK: -** Ensures that values in a column satisfy a **specific condition**.
* **DEFAULT: -** Provides a **default value** for a column if no value is given.
* **INDEX: -** (not always counted as a constraint, but often mentioned)
* Improves speed of data retrieval.

**7) Difference between RDBMS vs DBMS**

|  |  |  |
| --- | --- | --- |
| **SRNO** | **RDBMS** | **DBMS** |
| **1** | Stores data in tables (relations) | Stores data as files |
| **2** | Supports relationships via keys | No relationships between data |
| **3** | Suitable for large-scale data | Suitable for small amounts of data |
| **4** | MySQL, Oracle, SQL Server, PostgreSQL | dBase, File System, Access |

**8) What is an SQL alias?**

* An **SQL alias** is a temporary name given to a **table or column** in a SQL query to make it **shorter, clearer, or more readable.**

**9) Write a query to create the table in Structured Query Language.**

* CREATE TABLE table name( column1 datatype, column2 datatype, column3 datatype, ..... , column datatype, PRIMARY KEY(one or more columns)

**10) Write a query to insert data into table.**

* INSERT INTO table name( column1, column2....column) VALUES ( value1, value2....valuen);

**11) Write a query to update data into table with validations.**

* UPDATE table name SET column1 = value1, column2 = value2....column=value ➢ [ WHERE CONDITION];

**12) Write a query to delete data from table with validations.**

* DELETE FROM table\_name WHERE {CONDITION};

**13) Write a query to insert new column in existing table.**

* ALTER TABLE table\_name
* ADD column\_name datatype;

**14) Write a query to drop table and database.**

* DROP DATABASE database\_name;

**15) Write a query to find max and min value from table.**

* SELECT MAX(column\_name) AS MaxValue,
* MIN(column\_name) AS MinValue
* FROM table\_name;

**16) What is API Testing**

* Application Programming Interface (API) is a software interface that allows two applications to interact with each other without any user intervention

**17) Types of API Testing**

* **Open APIs**: These types of APIs are publicly available to use like OAuth APIs from Google. It has also not given any restriction to use them. So, they are also known as Public APIs.
* **Partner APIs**: Specific rights or licenses to access this type of API because they are not available to the public.
* **Internal APIs**: Internal or private. These APIs are developed by companies to use in their internal systems. It helps you to enhance the productivity of your teams.

**18) What is Responsive Testing?**

* A responsive web design involves creating a flexible web page that is accessible from any device, starting from a mobile phone to a tablet

**19) Which types of tools are available for Responsive Testing**

* LT Browser
* Lembda Testing
* Google Resizer
* I am responsive
* Pixel tuner

**20) What is the full form of .ipa, .apk**

* **Ipa :-** iOS App Store Package
* **Apk :-** Android application Package

**21) How to create step for to open the developer option mode ON?**

* **Open Settings** on your phone.
* Scroll down and **tap “About phone”**
* Find **version no**
* **Tap version no 7 times** quickly.
* You may need to enter your **lock screen PIN/Password.**
* A message will appear: “You are now a developer!”