1. **What is RDBMS ?**

* **RDBMS** stands for **Relational Database Management System**.  
  It is a type of database system that stores data in the form of tables (rows and columns), where each table is related to other tables using keys.
* RDBMS is the basis for SQL, and for all modern database systems like MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access
* A Relational database management system (RDBMS) is a database management system (DBMS) that is based on the relational model as introduced by E. F. Codd.

1. **What is SQL ?**

* SQL is stands for structured Query Language.
* SQL is a computer language for storing, manipulating and retrieving data stored in relational databases.

1. **Write SQL Commands.**

* **DQL** – Data Query Language (Select)
* **DML** – Data Manipulation Language (Insert, Update, Delete)
* **DCL** – Data Control Language (Grant, Revoke)
* **DDL** – Data Definition Language (Create, Alter, Drop)

1. **What is join ?**

* “A join statement is used to combine data of rows from two or more tables based on a common field between them.”

1. **Write type of joins.**

* **There are four types of joins:**

1. **INNER JOIN:** returns rows when there is a match in both tables.
2. **LEFT JOIN:** returns all rows form the left table, even if there are no matches in the right table.
3. **RIGHT JOIN:** return all rows form the right table, even if there are no matches in the left table.
4. **IN:** returns rows when there is a match in one of the tables.
5. **How many constraints and describes itself ?**

* **SQL** constraints are used to specify rules for the data in table.

1. **NOT NULL:**  Ensure that column cannot have null value.
2. **UNIQUE:** Ensures that values in column are different.
3. **PRIMARY KEY:** A combination of NOT NULL and UNIQUE. Uniquely identifies each row in table.
4. **FOREIGN KEY :** uniquely identifies a row/ record in another table.
5. **CHECK :** ensures that all values in a column satisfy a specific condition.
6. **DEFAULT :**  sets a default value for column when no value is specified.
7. **INDEX :** used to create and retrieve data from the database very quickly.
8. **Difference between RDBMS vs DBMS.**

|  |  |
| --- | --- |
| **RDBMS** | **DBMS** |
| DBMS stores data as a file. | Data is stored in the form of tables. |
| DBMS supports single user only. | RDBMS supports multiple users. |
| Low software and hardware needs. | High hardware and software needs. |
| Data elements need to access individually. | Multiple data elements can be accessed at the same time using SQL query. |
| Example of DBMS are a file system, XML, Windows Registry, etc. | Example of RDBMS is MySQL, Oracle, SQL Server, etc. |

1. **What is an SQL alias ?**

* SQL Alias is a temporary name that is used to give a table or a column a different name for the duration of a query.
* Aliases is a commonly used to make column names or table names more readable, concise, or to improve query quality, especially when working with complex queries or joins.

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

* CREATE DATABASE Testing;

USE Testing;

CREATE TABLE Student

(

SID INT (3) PRIMARY KEY,

SName VARCHAR(50),

City VARCHAR(50)

1. **Write a query to insert data into table.**

|  |  |
| --- | --- |
| **INSERT INTO Employees** | **VALUES** |
| Employee ID | 101 |
| FirstName | Amit |
| LastName | Sharma |
| Email, | amit.sharma@example.com |
| Phone Number, | 9876543210 |
| Hire Date, | 2023-06-15 |
| Salary | 45000 |

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

* UPDATE Employee SET City=”Pune” WHERE EName=”Amit”;

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

* DELETE FROM Employee WHERE SName=”Amit”

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

* ALTER TABLE Employee ADD Age INT(2);

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

* DROP TABLE Employee;

DROP DATABASE Testing;

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

* SELECT MAX(Age) FROM Employee;

SELECT MIN(Age) FROM Employee;

**16. Create two tables named Seller and Product apply foreign key in product table Fetch data from both tables using different joins.**

Step 1: Create Seller Table

CREATE TABLE Seller (  
 SellerID INT PRIMARY KEY,  
 SellerName VARCHAR(100),  
 ContactEmail VARCHAR(100)  
);

Step 2: Create Product Table with Foreign Key

CREATE TABLE Product (  
 ProductID INT PRIMARY KEY,  
 ProductName VARCHAR(100),  
 Price DECIMAL(10,2),  
 SellerID INT,  
 FOREIGN KEY (SellerID) REFERENCES Seller(SellerID)  
);

Step 3: Fetch Data Using Different Joins

-- INNER JOIN: Fetch products with matching sellers  
SELECT Product.ProductID, Product.ProductName, Seller.SellerName  
FROM Product  
INNER JOIN Seller ON Product.SellerID = Seller.SellerID;

-- LEFT JOIN: Fetch all products with their seller names (if available)  
SELECT Product.ProductID, Product.ProductName, Seller.SellerName  
FROM Product  
LEFT JOIN Seller ON Product.SellerID = Seller.SellerID;

-- RIGHT JOIN: Fetch all sellers and their products (if any)  
SELECT Product.ProductID, Product.ProductName, Seller.SellerName  
FROM Product  
RIGHT JOIN Seller ON Product.SellerID = Seller.SellerID;

**17. 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.

**18. Types of API Testing.**

* There are 3 types of API Testing:

1.Open APIs

2.Partner APIs

3.Internal APIs

**19.What is Responsive Testing ?**

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

**20. Which types of tools are available for Responsive Testing?**

* Type of tools are available for responsive testing:
* LT Browser
* Lambda Testing
* I am responsive
* Google Resizer
* Responsinator
* Pixel Tuner

**21. What is the full form of .ipa, .apk?**

* **.apk -** android application packages
* **.ipk** - (IOS) iphone application store package

**22. How to create step for to open the developer option mode ON?**

* Open your mobile phone **Setting.**
* Select **About Device** option.
* Also select **Version** option.
* Then 7 Tap on **Version no** option, thedeveloper option mode **ON.**