**What is RDBMS?**

**Ans: -** RDBMS means Relational Database Management System. It’s a software that organize data into tables consisting of Row and Columns. This structure facilitates efficient data storage, retrieval, and management.

**What is SQL?**

**Ans: -** SQL means Software Query Language. This language used to store, manage, and get data from databases.

**Write SQL Commands**

**Ans: -** 1.For Create table :

CREATE TABLE users (

id INT,

name VARCHAR(50),

age INT

);

2.For Add Data : - INSERT INTO users (id, name, age)

VALUES (1, 'Alice', 25);

3.Select data: - SELECT \* FROM users;

4.Change Data :- UPDATE users

SET age = 26

WHERE id = 1;

5.Delete or Remove Data: - DELETE FROM users

WHERE id = 1;

**What is join?**

**Ans: -** A JOIN in SQL is used to combine data from two or more tables based on a related column.

**Write type of joins.**

**Ans: -** There are Four type of Joins in Sql:

1.Inner Join

2.Left Join

3.Right Join

4.Full Join

**How Many constraint and describes it self**

**Ans: -** There are six Constraint:

1. NOT NULL :- Column must have a value
2. PRIMARY KEY :- Uniquely identifies a row, no NULLs
3. FOREIGN KEY :- Connects to primary key in another table
4. UNIQUE :- All values must be different
5. CHECK :- Must meet a specific condition
6. DEFAULT :- Provides a default value

**Difference between RDBMS vs DBMS**

**Ans: -**

|  | **DBMS** | **RDBMS** |
| --- | --- | --- |
| Full Form | Database Management System | Relational Database Management System |
| Data Storage | Stores data in files or hierarchical formats | Stores data in tables (rows & columns) |
| Relationship Support | Does not support relationships between data | Supports relationships using foreign keys |
| Normalization | Not mandatory | Uses normalization to reduce redundancy |
| Data Integrity | Less focus on integrity | Maintains data integrity & constraints |
| Query Language | May not support SQL | Uses SQL (Structured Query Language) |
| Multi-user | Mostly single-user systems | Supports multi-user access |
| Examples | File System, XML DB, Microsoft Access (basic) | MySQL, PostgreSQL, Oracle, SQL Server, etc. |
| Security | Limited | Advanced security features |

**What is an SQL alias?**

**Ans: -** An SQL alias is a temporary name given to a table or column in a query. It makes your query shorter, clearer, or more readable.

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

**Ans: -** CREATE TABLE employees (

emp\_id INT PRIMARY KEY,

first\_name VARCHAR(50) NOT NULL,

last\_name VARCHAR(50),

email VARCHAR(100) UNIQUE,

salary DECIMAL(10, 2) CHECK (salary > 0),

department\_id INT,

hire\_date DATE DEFAULT CURRENT\_DATE

);

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

**Ans: -** INSERT INTO table\_name (column1, column2, ...)

VALUES (value1, value2, ...);

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

**Ans: -** UPDATE employees

SET salary = salary \* 1.10

WHERE emp\_id = 101 AND salary < 60000;

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

**Ans: -** DELETE FROM employees

WHERE emp\_id = 104 AND salary < 30000;

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

**Ans: -** ALTER TABLE employees

ADD phone\_number VARCHAR(15);

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

**Ans: -** DROP TABLE table\_name; (for delete table)

DROP DATABASE database\_name; (for delete database)

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

**Ans: -** SELECT MAX(column\_name) AS max\_value, MIN(column\_name) AS min\_value

FROM table\_name;

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

**Ans: -**

1.Create seller Table

CREATE TABLE Seller (

seller\_id INT PRIMARY KEY,

seller\_name VARCHAR(100) NOT NULL,

city VARCHAR(50)

);

2.Create Product Table with foreign key to seller

CREATE TABLE Product (

product\_id INT PRIMARY KEY,

product\_name VARCHAR(100) NOT NULL,

price DECIMAL(10, 2),

seller\_id INT,

FOREIGN KEY (seller\_id) REFERENCES Seller(seller\_id)

);

3.Insert seller data

INSERT INTO Seller (seller\_id, seller\_name, city) VALUES

(1, 'Alice', 'New York'),

(2, 'Bob', 'Los Angeles'),

(3, 'Charlie', 'Chicago');

4.Insert Product data

INSERT INTO Product (product\_id, product\_name, price, seller\_id) VALUES

(101, 'Laptop', 750.00, 1),

(102, 'Smartphone', 500.00, 2),

(103, 'Tablet', 300.00, 1),

(104, 'Monitor', 200.00, NULL); -- No seller assigned

5.Fetch data using inner join

SELECT p.product\_name, p.price, s.seller\_name, s.city

FROM Product p

INNER JOIN Seller s ON p.seller\_id = s.seller\_id;

6.fetch data using Left Join

SELECT p.product\_name, p.price, s.seller\_name, s.city

FROM Product p

LEFT JOIN Seller s ON p.seller\_id = s.seller\_id;

7.Fetch data using Right Join

SELECT p.product\_name, p.price, s.seller\_name, s.city

FROM Product p

RIGHT JOIN Seller s ON p.seller\_id = s.seller\_id;

8.Fetch data with Full Outer Join

SELECT p.product\_name, p.price, s.seller\_name, s.city

FROM Product p

FULL OUTER JOIN Seller s ON p.seller\_id = s.seller\_id;

**What is API Testing?**

**Ans: -** API Testing is a type of software testing that checks if APIs are working correctly, securely, and returning the expected results.

**Types of API Testing**

**Ans: -** There are mainly three types of API Testing

1.Open API

2.Partener API

3.Internal API

**What is Responsive Testing?**

**Ans: -** Responsive Testing ensures that a website or web application works properly and looks good on different devices and screen sizes, such as desktops, tablets, and smartphones.

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

**Ans: -** 1.LT Browser

2.Lembda Testing

3.Google Resizer

4.I am Responsive

5.Pixel Tuner

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

**Ans: -**1. .ipa – iOS App Store Package

2. .apk – Android Package Kit

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

**Ans: -**For android:

1.Go to setting> About Phone > Find Build Number > Tap 7 times on Build Number > enter device PIN > Developer option enabled