

## Assignment 4

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### 1. What is RDBMS?

**RDBMS** stands for **Relational Database Management System**. It is a type of database management system that stores data in a structured format, using rows and columns. The data is organized into tables, and relationships between the data are maintained using keys.

### 2. What is SQL?

**SQL** (Structured Query Language) is a standardized programming language used to manage and manipulate relational databases.

- 1 create database and tables
- 2 insert data into tables
- 3 Query data into select statement
- 4 Update existing data
- 5 delet data
- 6 Control access to data
- 7 Create relationships between different tables.

### 3. Write SQL commands

There different types of command.

- 1 SELECT- Retrives data from a database
- 2 INSERT- Adds new data into a table
- 3 UPDATE- Modifies existing data
- 4 DELETE- Removes data from a table
- 5 CREATE-Create a new tables or database
- 6 DROP- Delete tables or database
- 7 ALTER-Modifies a table

### 4. What is join?

In structured query languages a JOIN is used to combine rows from two or more tables based on a related column between them.

### 5. Write types of join

- 1 INNER JOIN: returns rows when there is a match in both tables.
- 2 LEFT JOIN: returns all rows from the left table, even if there are no matches in the right table.

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3 RIGHT JOIN: returns all rows from the right table, even if there are no matches in the left table.

4 FULL JOIN: returns rows when there is a match in one of the tables.

### 6. How Many constraint and describes it self

In **SQL**, constraints are rules applied to table columns to enforce data integrity and ensure that the data stored in the database is accurate and reliable. There six types of constraint.

1 NOT NULL- Ensures that a column cannot have NULL values

2 UNIQUE- Ensures that all values in a column are unique

3 PRIMARY KEY- Uniquely identifies each record in a table (combines NOT NULL + UNIQUE)

4 FOREIGN KEY- Ensures referential integrity by linking one table's column to another table's PRIMARY KEY

5 CHECK- Ensures that all values in a column meet a specific condition

6 DEFAULT- Sets a default value for a column when no value is specified

### 7. Difference between RDBMS vs DBMS

DBMS	RDBMS
1 Stores data as files	Stores data in tables (rows & columns)
2 no relationship between data	Relationships using foreign keys
3 Does not support constraints well	Supports constraints (PK, FK, CHECK, etc.)
4 Normalization not support	Supports normalization (removes redundancy)
5 Multi user access limited	Allows multi-user access
6 Microsoft Access (basic), File System DB	MySQL, Oracle, PostgreSQL, SQL Server

### 8. What is an SQL alias?

An alias in SQL is a temporary name you give to a table or column in a query to make it easier to read or reference.

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

Create table students (

Id int(10) Primary key auto\_increment),

name varchar(255),

email varchar(255),

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```
password varchar (255),  
registration_date);
```

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

```
Insert into student ( name,contact,address,email,password,registration_date)
```

```
Values ('nimisha',8140611428,'ahmedabad', nimisha@gmail.com, 'nimisha@123'  
'2025-05-16');
```

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

```
Update students set address = 'delhi',  
Password='nimisha@123' where id =2;
```

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

```
Delet from students where id=1;
```

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

```
ALTER TABLE employee  
ADD email varchar(100);
```

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

```
DROP TABLE employee
```

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

```
Select  
MAX(age) AS max age,  
MIN (age) AS min age,  
MAX (salary) AS max_salary,  
MIN(salary) AS min_salary,  
FROM employees;
```

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

```
CREATE TABLE Seller (  
seller_id INT PRIMARY KEY,  
seller_name VARCHAR(100),  
location VARCHAR(100)  
);
```

- Product table

```
CREATE TABLE Product (  
product_id INT PRIMARY KEY,  
product_name VARCHAR(100),  
price DECIMAL(10,2),  
seller_id INT,
```

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```
FOREIGN KEY (seller_id) REFERENCES Seller(seller_id)
);
```

- Fetch data using inner joins

```
SELECT
    P.product_id, P.product_name, P.price,
    S.seller_name, S.location
FROM Product P
INNER JOIN Seller S ON P.seller_id = S.seller_id;
```

- Fetch data using left join

```
SELECT
    P.product_id, P.product_name, P.price,
    S.seller_name, S.location
FROM Product P
LEFT JOIN Seller S ON P.seller_id = S.seller_id;
```

- Fetch data using right join

```
SELECT
    P.product_id, P.product_name, P.price,
    S.seller_name, S.location
FROM Product P
RIGHT JOIN Seller S ON P.seller_id = S.seller_id;
```

### 17. What is API Testing ?

API Testing is a type of software testing that focuses on verifying that Application Programming Interfaces (APIs) work as expected.

### 18. 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.

### 19. 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 .

Responsive Testing is a type of software testing used to verify that a website or web application displays and functions correctly across different screen sizes, devices, and orientations.

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

- LT Browser
- Lambda Testing
- Google Resizer
- I am responsive
- Pixel tuner

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

iOS App Store Package (or iOS App file).

android package kit.

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

To enable developer options on an Android device, navigate to Settings, then About phone or About device. Locate the Build number and tap it seven times. After tapping, a message will indicate you've unlocked developer options, and you can access them in your settings menu.

Detailed Steps:

1. Open Settings: Navigate to the settings menu on your Android device.
2. Go to About Phone/Device: Scroll down and select "About phone" or "About device".
3. Find Build Number: Scroll down until you find the "Build number" entry.
4. Tap Seven Times: Rapidly tap the "Build number" entry seven times.
5. Enable Developer Mode: After tapping, you should see a message confirming that developer options are now unlocked.