Software Testing Assignment

Module: -3

(1) What is RDBMS?

- RDBMS stands for Relational Database Management System.
- RDBMS is a software system that enables users to manage, organize, and manipulate structured data based on the relational model.
- RDBMS is the basis for SQL, and for all modern database systems like MS SQL Server, IBM DB2, Oracle, MySQL, and Microsoft Access.

(2) What is SQL?

- SQL stands for Structured Query Language.
- SQL is a standard language for storing, manipulating and retrieving data in databases.
- It is the standard language used to communicate with and extract date from relational database management systems(RDBMS).
- SQL allows you to access and manipulate the databases. To use SQL in MySQL, SQL Server, MS Access, Oracle, Sybase, Informix, Postgres, and other database systems.
- SQL allows users to perform various operations on databases, including: querying data, inserting data, updating data, deleting data, creating and modifying database structures etc.

(3) Write SQL Commands.

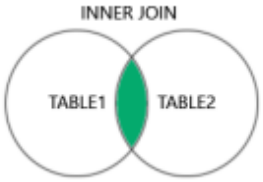
- SQL commands are mainly categorized into five categories:
  1. DDL - Data definition language
  2. DQL - Data query language
  3. DML - Data manipulation language
  4. DCL - Data control language
  5. TCL - Transection control language

(4) What is join?

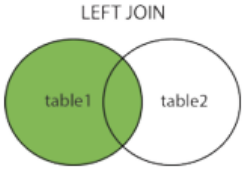
- A join in SQL is a mechanism used to combine rows from two or more tables based on related columns, creating a new result set.
- The join keyword merges two or more tables and creates a temporary image of the merged table. Then according to the conditions provided, it extracts the required data from the image table, and once data is fetched, the temporary image of the merged tables is dumped.

(5) Write type of join.

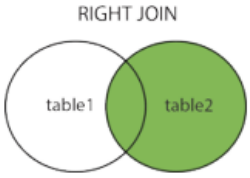
- **Inner Join**: Returns rows that have matching values in both tables being joined.



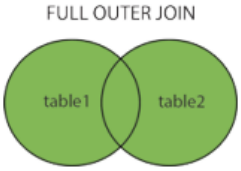
- **Left Join (Outer Join)**: Returns all rows from the left table and the matched rows from the right table. If there's no match, NULL values are returned for the right table's columns.



- **Right Join (Outer Join)**: Returns all rows from the right table and the matched rows from the left table. If there's no match, NULL values are returned for the left table's columns.



- **Full Join (Outer Join)**: Returns all rows when there is a match in either left or right table. If there's no match, NULL values are returned for missing columns.



(6) How many constraint and describes itself.

- There are 7 constraints are commonly used in SQL.

1. **Primary Key Constraint**: Ensures that each row in a table is uniquely identified. It uniquely identifies each record in the table and cannot contain NULL values.
2. **Foreign Key Constraint**: Enforces referential integrity between two tables. It ensures that the values in a column (or a set of columns) of one table match the values in a column in another table.
3. **Unique Constraint**: Ensures that all values in a column (or a set of columns) are unique, meaning no duplicate values are allowed.
4. **Check Constraint**: Validates the data being entered into a column based on a specific condition or set of conditions. It allows you to define rules that the data must adhere to.

5. **Not Null Constraint**: Ensures that a column cannot contain NULL values, meaning it requires every row to have a value for that column.
6. **Default Constraint**: Specifies a default value for a column. If no value is provided for the column during an INSERT operation, the default value is used.
7. **Create Index**: Used to create and retrieve data from the database very quickly.

(7) Difference between RDBMS vs DBMS.

RDBMS	DBMS
RDBMS stands for relational database management system.	DBMS stands for database management system.
Data model organizes data into tables.	Data model can handle different data structures.
Establishes relationships between tables.	Limited support for connecting data.
Enforces strict integrity rules.	Basic integrity checks.
Examples of RDBMS include systems like MySQL, PostgreSQL, Oracle, SQL Server.	Examples of DBMS include systems like MongoDB, Redis, Couchbase.

(8) 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.
- It is a computing interface which enables communication and data exchange between two separate software systems.
- The purpose of API Testing is to check the functionality, reliability, performance, and security of the programming interfaces.

(9) Types of API Testing.

- There are three types of API testing:

1) 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.

2) Partner APIs: Specific rights or licenses to access this type of API because they are not available to the public.

3) 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.

(10) 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 the evaluation of a website or web application's ability to adjust and display correctly across various devices and screen sizes, ensuring a consistent and user-friendly experience.

(11) Which types of tools are available for Responsive Testing?

- **Types of Responsive Website Testing:**
    1) Visual Regression Testing
    2) Visual Layout Testing
    3) Cross browser testing
    4) Functional Testing:
    5) Performance Testing
    6) Usability Testing

- **Responsive Testing Tools:**
    1) LT Browser
    2) Lambda Testing
    3) Google Resizer
    4) am I responsive
    5) Pixel tuner

(12) What is the full form of .ipa, .apk?

.ipa full form	iOS package App, international phonetic alphabet
.apk full form	Android Application Package

(13) How to create step for to open the developer option mode ON?

Step 1: **Unlock Your Device**: Ensure your Android device is unlocked and on the home screen.
Step 2: **Open Settings**: Tap on the "Settings" app icon.

Step 3: **Tap About Phone (or About Device)**: Scroll down the Settings menu and tap on "About phone" or "About device."
Step 4: **Tap Build Number seven times: After** the first few taps, you should see the steps counting down until you unlock the developer options. You may also have to tap in your PIN for verification.
Step 5: **Access Developer Options**: After enabling Developer Options, go back to the main Settings menu. You should now see a new option called "Developer options" listed above or below "About phone" or "About device." Tap on "Developer options" to access the menu.
Step 6: **Go back to the Settings pane:** where you will now find Developer options as an entry.
Step 7: **Configure Developer Options (Optional)**: Tap it and toggle (USB debugging) the switch on if it is not already, and from there, you can proceed to make adjustments to your phone.