Software Testing Assignment

Module -3

1. **What is RDBMS?**
   - **RDBMS: (Relational Database Management System)**
   - The software used to store, manage, query, and retrieve data stored in a relational database is called a relational database management system (RDBMS).
   - The RDBMS provides an interface between users and applications and the database, as well as administrative functions for managing data storage, access, and performance.
   - Relational Database Management System (RDBMS) is a more advanced version of a DBMS system that allows access to data in a more efficient way. It is used to store or manage only the data that are in the form of tables.

2. **What is SQL?**
   - **SQL: (Structured Query Language)**
   - SQL is a standard language for storing, manipulating and retrieving data in databases. 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.

3. **Write SQL Commands.**
   - SQL stands for Structured Query Language.
   - SQL is a standard language for storing, manipulating and retrieving data in databases. 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 Commands are mainly categorized in to five categories:
     1. DDL – Data Definition Language
     2. DQL – Data Query Language
     3. DML – Data Manipulation Language
     4. DCL – Data Control Language
     5. TCL – Transaction Control Language

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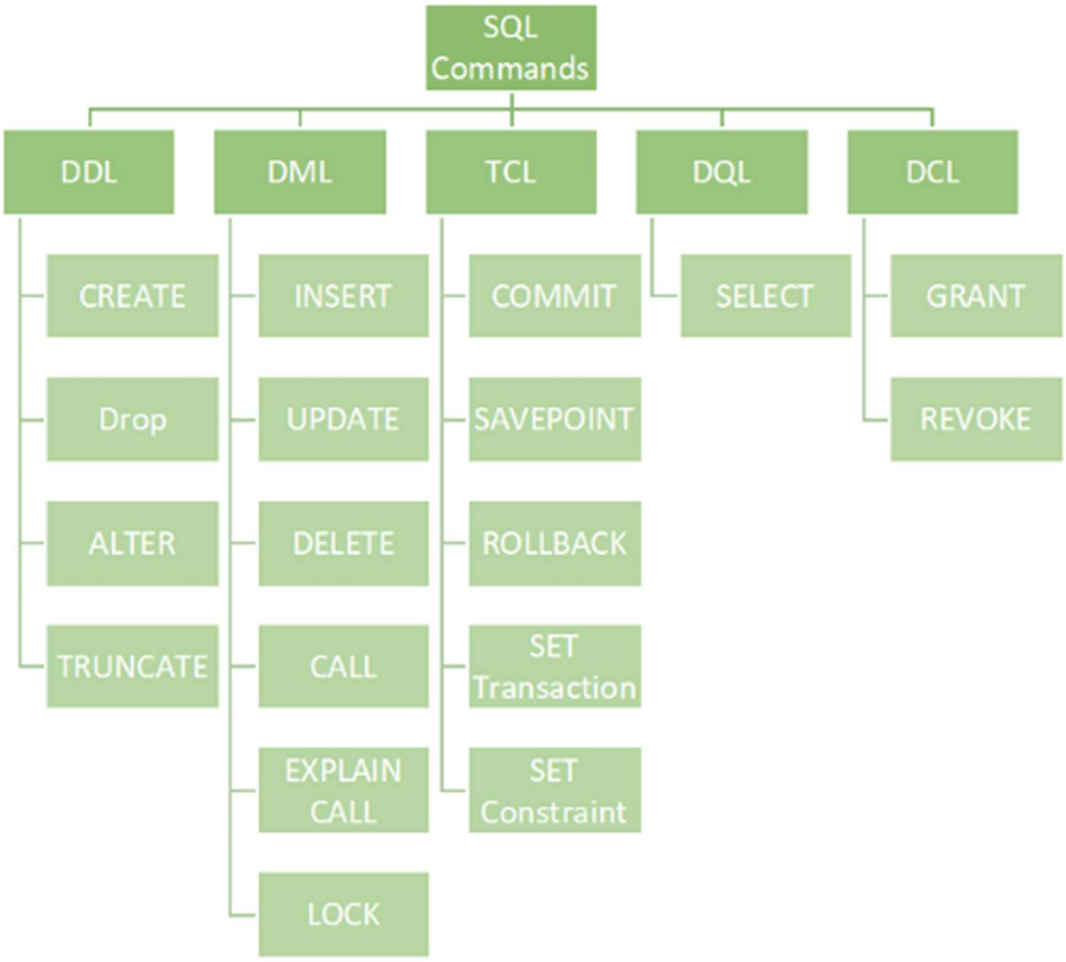

4. **What is join?**
   - A JOIN clause is used to combine rows from two or more tables, based on a related column between them.
   - The join keyword merges two or more tables and creates a temporary image of the merged table.
   - Then according to the conditions provided, it extracts the required data from the image table, and once data is fetched, the temporary image of the merged tables is dumped.

5. **Write type of joins.**

   - **Four Types of Joins:**
     1. INNER JOIN
     2. LEFT OUTER JOIN
     3. RIGHT OUTER JOIN
     4. FULL OUTER JOIN

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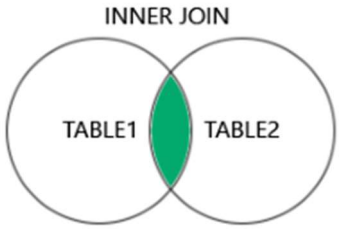
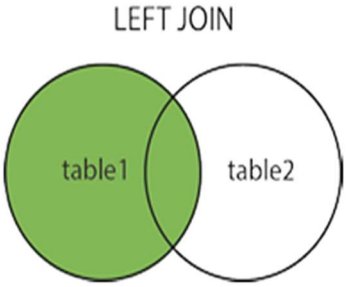
(1) INNER JOIN:

- The INNER JOIN keyword selects records that have matching values in both tables.



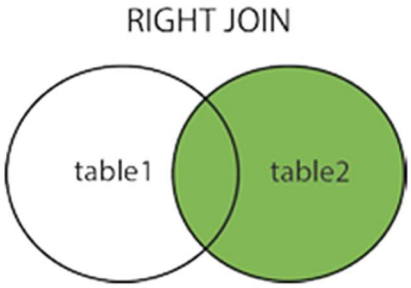
(2) LEFT OUTER JOIN:

- Rows belonging to the left-hand table as well as records available in both the tables, and not having values from the right-hand table are presented.



(3) RIGHT OUTER JOIN:

- Rows belonging to the right-hand table as well as records available in both the tables and not having values from the left-hand table are presented.



(4) FULL OUTER JOIN:

- The full outer join (a.k.a. SQL Full Join) first adds all the rows matching the stated condition in the query and then adds the remaining unmatched rows from both tables. We need two or more tables for the join.

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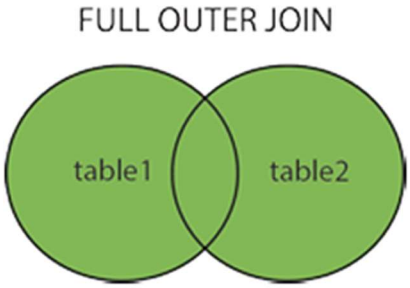

6. **How Many constraint and describes itself.**
   - SQL constraints are used to specify rules for the data in a table.
   - Constraints are used to limit the type of data that can go into a table. This ensures the accuracy and reliability of the data in the table. If there is any violation between the constraint and the data action, the action is aborted.
   - Constraints can be column level or table level. Column level constraints apply to a column, and table level constraints apply to the whole table.

   The following constraints are commonly used in SQL:

   - NOT NULL - Ensures that a column cannot have a NULL value.
   - UNIQUE - Ensures that all values in a column are different.
   - PRIMARY KEY - A combination of a NOT NULL and UNIQUE. Uniquely identifies each row in a table.
   - FOREIGN KEY - Prevents actions that would destroy links between tables.
   - CHECK - Ensures that the values in a column satisfies a specific condition.
   - DEFAULT - Sets a default value for a column if no value is specified.
   - CREATE INDEX - Used to create and retrieve data from the database very quickly.

7. **Difference between RDBMS v/s DBMS.**

RDBMS	DBMS
Data stored is in table format.	Data stored is in the file format.
Multiple data elements are accessible together.	Individual access of data elements.
Support distributed database.	No support for distributed database.
Data is stored in a large amount.	Data stored is a small quantity.
RDBMS supports multiple users.	DBMS supports a single user.
Data in the form of a table are linked together.	No connection between data.
The software and hardware requirements are higher.	The software and hardware requirements are low.
Example: Oracle, SQL Server.	Example: XML, Microsoft Access.

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8. What is API Testing? (Application Programming Interface)

- API Testing is to check the functionality, reliability, performance, and security of the programming interfaces.
- API is a Software Interface that allows two applications to interact with each other without any user intervention.
- API is the mediator which helps to applications to communicate with each other. It is kind of logic written by developers using any programming language to perform something.

9. Types of API Testing.

- 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?

- To check the responsiveness of our website on multiple devices is simply called responsive testing.
- Responsive testing involves how a website or web application looks and behaves on different devices, screen sizes, and resolutions.
- The goal of responsive testing is to ensure that the website or web application can be used effectively on various devices, including desktops, laptops, tablets, and smartphones.

11. Which types of tools are available for Responsive Testing?

Types of Responsive Testing:

- Visual Regression Testing
- Visual Layout Testing
- Cross browser testing
- Functional Testing:
- Performance Testing
- Usability Testing

Tools Of responsive Testing:

- LT Browser
- Lambda Testing

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- Google Resizer
- am I responsive
- Pixel tuner

12. What is the full form of .ipa, .apk

- **.ipa:** (International Phonetic Alphabet).
- **.apk:** (Android Application Package).

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

- Step 1: Go to Settings >my Phone.
- Step 2: Tap Software Info > Build Number.
- Step 3: 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 4: Once developer options are activated, you will see a message that reads you are now a developer.
- Step 5: Go back to the Settings pane, where you will now find Developer options as an entry.
- Step 6: 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.