

## **Software Testing Assignment –3**

### **1] What is RDBMS?**

- RDBMS stands for Relational Database Management System.
- RDBMS is a program used to maintain a relational database.
- RDBMS is the basis for all modern database systems such as MySQL, Microsoft SQL Server, Oracle, and Microsoft Access.
- RDBMS uses SQL queries to access the data in the database.

### **2] What is SQL?**

- SQL stands for Structured Query Language
- SQL lets you access and manipulate databases

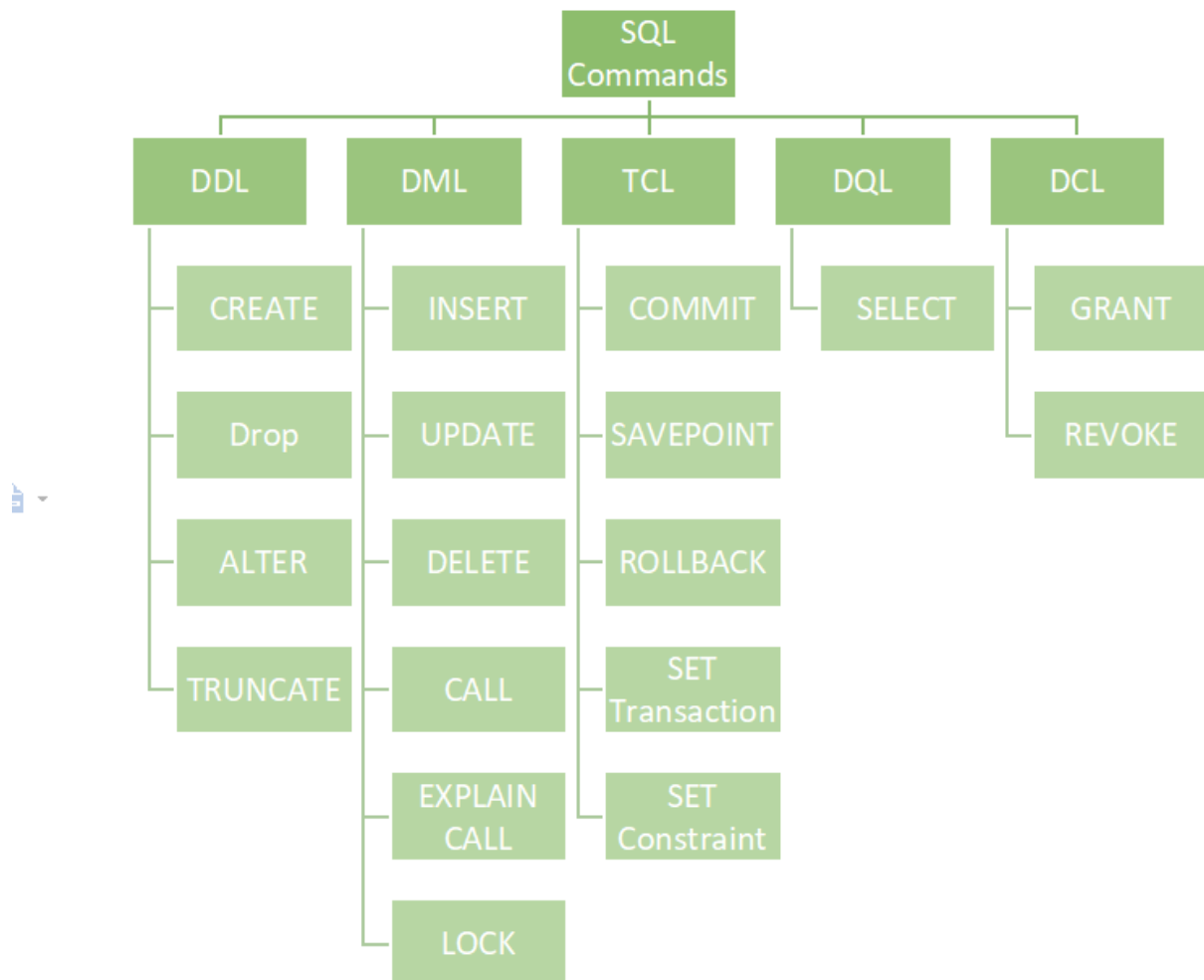
#### ***SQL can do...***

- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert records in a database
- SQL can update records in a database
- SQL can delete records from a database
- SQL can create new databases
- SQL can create new tables in a database
- SQL can create stored procedures in a database
- SQL can create views in a database
- SQL can set permissions on tables, procedures, and views

### 3] Write SQL Command

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 – Transaction Control Language



### 4] What is join? Write type of joins.

**SQL Join** statement is used to combine data or rows from two or more tables based on a common field between them. Different types of Joins are as follows:

- INNER JOIN
- LEFT JOIN
- RIGHT JOIN
- FULL JOIN
- NATURAL JOIN

## 5] How many Constraints and describe itself.

Database Constraints can be categorized into 3 main categories:

- Constraints that are applied in the data model are called **Implicit Constraints**.
- Constraints that are directly applied in the schemas of the data model, by specifying them in the [DDL\(Data Definition Language\)](#). These are called **Schema-Based Constraints or Explicit Constraints**.
- Constraints that cannot be directly applied in the schemas of the data model. We call these Application-based or **Semantic Constraints**.

## 6] Difference between RDBMS vs DBMS

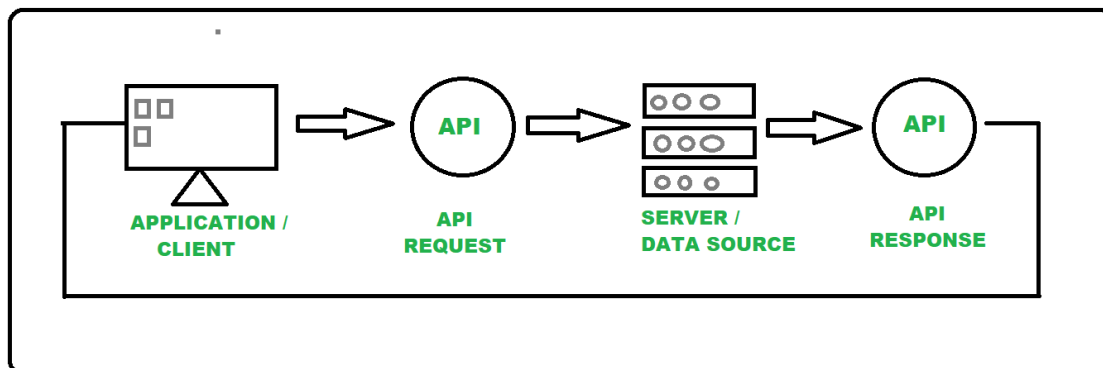
DBMS	RDBMS
<a href="#">DBMS</a> stores data as file.	<a href="#">RDBMS</a> stores data in tabular form.
Data elements need to access individually.	Multiple data elements can be accessed at the same time.
No relationship between data.	Data is stored in the form of tables which are related to each other.

Normalization is not present.	Normalization is present.
DBMS does not support distributed database.	RDBMS supports distributed database.
It stores data in either a navigational or hierarchical form.	It uses a tabular structure where the headers are the column names, and the rows contain corresponding values.
It deals with small quantity of data.	It deals with large amount of data.
Data redundancy is common in this model.	Keys and indexes do not allow Data redundancy.
It is used for small organization and deal with small data.	It is used to handle large amount of data.
Not all Codd rules are satisfied.	All 12 Codd rules are satisfied.
Security is less	More security measures provided.
It supports single user.	It supports multiple users.
Data fetching is slower for the large amount of data.	Data fetching is fast because of relational approach.
The data in a DBMS is subject to low security levels with regards to data manipulation.	There exists multiple levels of data security in a RDBMS.

Low software and hardware necessities.	Higher software and hardware necessities.
Examples: <a href="#">XML</a> , Window Registry, Forxpro, dbaseIIIplus etc.	Examples: <a href="#">MySQL</a> , <a href="#">PostgreSQL</a> , <a href="#">SQL Server</a> , Oracle, Microsoft Access etc.

## 7] What is API Testing and Types of API Testing

API (Application Programming Interface) testing is a type of software testing that focuses on the functionality, reliability, and performance of application programming interfaces (APIs). APIs act as a bridge between different software systems, allowing them to communicate and exchange data with each other.



**API testing Types:** There are multiple types of testing which are most often used as form of API testing which means during multiple types of testing simultaneously API can be tested. So the below list represents the types of API testing i.e.

6. Unit Testing
7. Integration Testing
8. End-to-End Testing
9. Performance Testing

- 10. Functional testing
- 11. Security Testing
- 12. Load testing
- 13. Penetration testing
- 14. Reliability testing
- 15. Fuzz testing

**What exactly we check during API testing :**

- Data accuracy.
- Response time.
- Duplicate or missing functionality.
- Authorization checks.
- Multithreaded issues.
- Security and performance issues.
- Error codes if API returns.
- Reliability issues.

**8] What is Responsive Testing? Which types of tools are available for Responsive Testing?**

- The term responsive testing is a range of activities that involve it to check whether the website or any application is behaving in the right way after it is launched on different gadgets and screen sizes.
- The tests used to check whether the user interface changes dynamically in response to different screen resolutions, device orientations, and capabilities act as one of the major aims of testing.
- As we are dealing with the spread of mobile devices as well as different variations regarding screen sizes and resolutions, it is now almost impossible to content the users with the same perfect screen experience – let alone the additional type of devices with nature-based handcrafted user interfaces.

**There are 7 types of tools are available for Responsive Testing:**

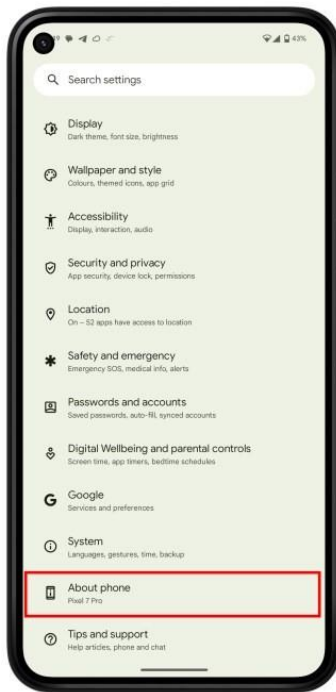
- 1. Testsigma**
- 2. Responsinator**
- 3. Screenfly**
- 4. LambdaTest**
- 5. Am I Responsive?**
- 6. CrossBrowserTesting**
- 7. Browserstack**

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

- **.ipa** stands for **iOS package App Store (IPA)** is a file containing a specific application's compressed data in a ZIP file.
- **.apk** stands for **Android Application PackageAPK**. An APK file is the file format used to install the applications on the android operating system. A program in android is first compiled, and then all of its parts are packaged into one single file to make it an APK file.

## **10] How to create step for to open the developer option mode ON? To check**

**Step 1:** Go to *Settings > About phone*.



**Step 2:** Scroll down to *Build number*.



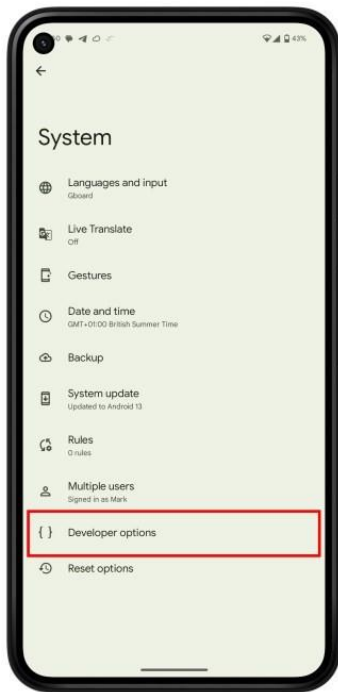


**Step 3:** Tap *Build number* seven times. After the first few taps, you should see the steps counting down until you unlock the developer options. You may also have to tap in your PIN for verification.

**Step 4:** Once developer options are activated, you will see a message that reads, *You are now a developer.*

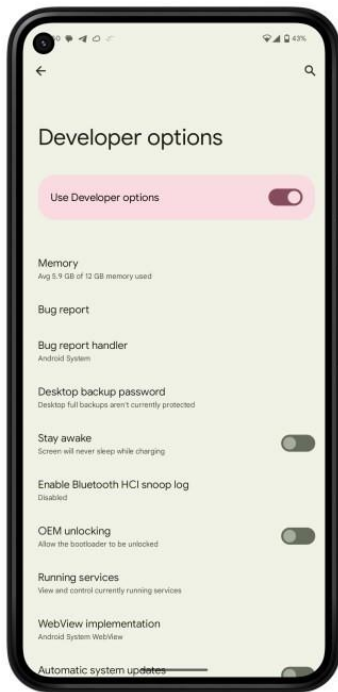


**Step 5:** Go back to the *Settings* pane and head to *System*, where you will now find *Developer options* as an entry.



**Step 6:** Tap it and toggle the switch on if it is not already, and from there, you can proceed to adjust your phone.

You can unlock the developer options on any Android smartphone or tablet by locating the build number in your *Settings* menu and tapping it multiple times. However, the exact location of the build number may differ depending on your phone's manufacturer.



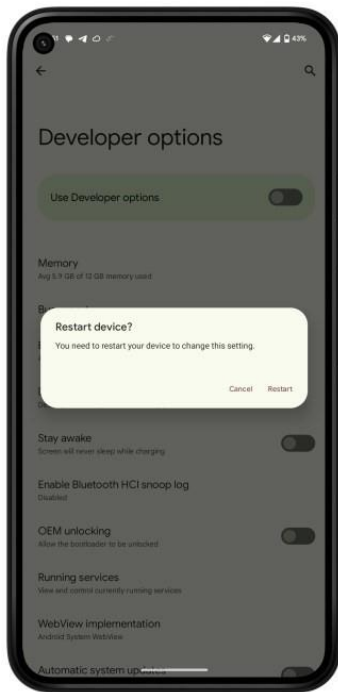
## How to deactivate developer options

It's simple to deactivate developer options straight from your *Settings* menu if you don't need to access them anymore.

**Step 1:** Head over to *Settings* > *System* and click *Developer options*.

**Step 2:** Hit the toggle to *Off*. After a restart, you're done.

Yes, really. That's all there is to it. After you've completed this step, you will no longer be able to access *Developer options* from the *Settings* menu. You can still modify these settings later if you change your mind and want to return them to their initial state. Simply follow the directions mentioned above.



Remember that developer mode was initially intended for app debugging and manipulating system responses and functionality. The selections within developer mode typically include debugging, networking, input, hardware-accelerated rendering, media, monitoring, and applications. It's up to you how you want to customize the settings, as you can categorize them according to your specific preferences.