Module -3

1. What is RDBMS?

Ans:- 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.

2. What is SQL?

Ans:- **SQL** is the standard language for dealing with Relational Databases. SQL can be used to insert, search, update, and delete database records. SQL can do lots of other operations, including optimizing and maintenance of databases.

3. Write SQL Command?

Ans:-

DDL – Data Definition Language

DML – Data Manipulation Language

DCL – Data Control Language

DQL – Data Query Language

4.What is join?

Ans:- This is a keyword used to query data from more tables based on the relationship between the fields of the tables. Keys play a major role when JOINs are used.

5. Write types of join?

Ans:- There are four types of join types given below

Inner join

Left join

Right join

Full join

6. How Many constraint and describes it self

Ans:-

NOT NULL.

CHECK.

DEFAULT.

UNIQUE.

PRIMARY KEY.

FOREIGN KEY.

7. Difference between RDBMS vs DBMS?

Ans:- DBMS stores data as a file whereas in RDBMS, data is stored in the form of tables. DBMS supports single users, while RDBMS supports multiple users. DBMS does not support client-server architecture but RDBMS supports client-server architecture.

8. What is API Testing?

Ans:- **API Testing** is a software testing type that validates Application Programming Interfaces (APIs). The purpose of API Testing is to check the functionality, reliability, performance, and security of the programming interfaces. In API Testing, instead of using standard user inputs(keyboard) and outputs, you use software to send calls to the API, get output, and note down the system’s response. API tests are very different from GUI Tests and won’t concentrate on the look and feel of an application. It mainly concentrates on the business logic layer of the software architecture.

9. Types of API Testing?

Ans:- There are mainly three types of API Testing

Open API

Partner API

Internal API

10. What is Responsive Testing?

Ans:- Responsive testing is a process that ensures your website works well on multiple devices by using CSS media queries based on the user's device where the website is accessed.

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

Ans:- There are many tools available for Responsive testing given below

LT Browser

Lembda Testing

Google Resizer

I am responsive

Pixel tuner

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

Ans:- APK: Android Application Package

IPA: iOS App Store Package

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

Ans:- 1.Go to Settings > About phone.

2.Scroll down to Build number.

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.

14. What is priority?

Ans. Priority is the order in which the developer should resolve a defect

15. What is severity?

Ans. Severity is the degree of impact that a defect has on the operation of the product.

16. Bug categories are…?

Ans. Bug categories are Functional bug , content bug , visual bug , Usability suggestion , Spelling bugs , Security bug .etc…

17. Advantage of Bugzila .?

Ans. The Advantages of Bugzilla are:

it is an open-source widely used bug tracker;

it is easy in usage and its user interface is understandable for people without technical knowledge;

it easily integrates with test management instruments;

it integrates with an e-mailing system;

it automates documentation.

18. Difference between priority and severity?

Ans.

| **Priority** | **Severity** |
| --- | --- |
| Defect Priority has defined the order in which the developer should resolve a defect | Defect Severity is defined as the degree of impact that a defect has on the operation of the product |
| Priority is associated with scheduling | Severity is associated with functionality or standards |
| Priority indicates how soon the bug should be fixed | Severity indicates the seriousness of the defect on the product functionality |
| Priority of defects is decided in consultation with the manager/client | QA engineer determines the severity level of the defect |
| Priority is driven by business value | Severity is driven by functionality |
| Its value is subjective and can change over a period of time depending on the change in the project situation | Its value is objective and less likely to change |

19. What are the different Methodologies in Agile Development Model?

Ans. The most widely used Agile methods include the following:

* [Scrum](https://www.techtarget.com/searchsoftwarequality/definition/Scrum-sprint)
* [Lean software development](https://www.techtarget.com/searchsoftwarequality/definition/lean-programming)
* Extreme programming
* Crystal
* [Kanban](https://www.techtarget.com/whatis/definition/kanban)
* Dynamic systems development method
* [Feature-driven development](https://www.techtarget.com/searchsoftwarequality/definition/feature-driven-development)

20. Explain the difference between Authorization and Authentication in Web testing. What are the common problems faced in Web testing?

Ans.

| **Authentication** | **Authorization** |
| --- | --- |
| In the [authentication](https://www.geeksforgeeks.org/authentication-in-computer-network/) process, the identity of users are checked for providing the access to the system. | While in [authorization](https://www.geeksforgeeks.org/what-is-aaa-authentication-authorization-and-accounting/) process, a the person’s or user’s authorities are checked for accessing the resources. |
| In the authentication process, users or persons are verified. | While in this process, users or persons are validated. |
| It is done before the authorization process. | While this process is done after the authentication process. |
| It needs usually the user’s login details. | While it needs the user’s privilege or security levels. |
| Authentication determines whether the person is user or not. | While it determines **What permission does the user have?** |
| Generally, transmit information through an ID Token. | Generally, transmit information through an Access Token. |

**Module-4 Automation Core Testing (Load Runner Up and Selenium IDE)**

1. Which components have you used in Load Runner?

Ans:-

 Load Generator generates the load against the application by following scripts.

 VuGen (Virtual User Generator) for generating and editing scripts.

 Controller controls, launches and sequences instances of Load Generator - specifying which script to use, for how long etc.

2. How can you set the number of Vusers in Load Runner?

Ans:- You can set the number of Vusers in the controller section while creating your scenarios. Many other advanced options like ramp-up, ramp-down of Vusers are also available in the Controller section.

3. What is Correlation?

Ans:- Correlation is a statistical measure that indicates the extent to which two or more variables fluctuate in relation to each other. A positive correlation indicates the extent to which those variables increase or decrease in parallel; a negative correlation indicates the extent to which one variable increases as the other decreases.

4. What is the process for developing a Vuser Script?

Ans:-

 Step 1- Record the Vuser Script.

 Step 2- Playback and improve the recorded vuser script.

 Step 3- Define and test the different run-time parameters.

 Step 4- Use the script in a LoadRunner scenario

5. How Load Runner interacts with the application?

Ans:-

LoadRunner simulates user activity by generating messages between application components or by simulating interactions with the user interface such as key presses or mouse movements. The messages and interactions to be generated are stored in scripts.

6. How many VUsers are required for load testing?

Ans:- Concurrent virtual user calculationFor example, if you run a load test with 10,000 virtual users, each making a request every 20 seconds (3 requests per minute), then you're making 30,000 requests per minute, which equals 500 requests per second.

7. What is the relationship between Response Time and Throughput?

Ans:- Response time and throughput are related. The response time for an average transaction tends to decrease as you increase overall throughput. However, you can decrease the response time for a specific query, at the expense of overall throughput, by allocating a disproportionate amount of resources to that query.

8. What is the difference between hits/second and requests/second?

Ans:- Hits per sec is the number of calls to the Webserver per second. And Request per sec is the number of request made to the webserver per second. Point to be notice here is "one Request may have many calls(Hits)".

9. What is Automation Testing?

Ans:- **Automation Testing** is a software testing technique that performs using special automated testing software tools to execute a test case suite. On the contrary, Manual Testing is performed by a human sitting in front of a computer carefully executing the test steps.

10. Which Are The Browsers Supported By Selenium Ide?

Ans:- The supported browsers include Mozilla Firefox, Google Chrome, Microsoft Edge, Safari, and Opera, among others. Selenium WebDriver allows you to write tests in various programming languages (including Java, C#, Python, and more) and execute them on different browsers using the corresponding WebDriver implementations.

11. What are the benefits of Automation Testing?

Ans:-

 Benefits of automation testing. The advantages of automation testing are given as follows -

 Saves time.

 Productivity improvement.

 Accuracy improvement.

 Test suite reusability.

 Ability to test on various platforms.

 Running tests 24/7

 Early bug detection.

12. What are the advantages of Selenium?

Ans:-

 Language and Framework Support.

 Open Source Availability.

 Multi-Browser Support.

 Support Across Various Operations.

 Ease of Implementation.

 Reusability and Integrations.

 Flexibility.

 Parallel test execution and faster market launch.

13. Why testers should opt for Selenium and not QTP?

Ans:- Selenium, however, supports a wide range of programming languages. QTP/UFT test scripts run only on the Windows environment. They cannot be run across all browsers. On the other hand, Selenium is OS independent and allows test scripts to run across all browsers.