MODULE-4

(Automation core testing)

1. Which components have you used in automation testing?

→ **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. During runs the Controller receives real-time monitoring data and displays status.

2. How can you set the number of vusers in load runner?

→ while running the test, go to Vuser - add users and it pop up another screen - here you have your selected script with LG and quantity to add user. go ahead and add the user. those user will be in DOWN status. you need to start the user from the VUSER

screen.... make sure you have DATA in your scripts so that it support 150 more user.

3. What is correlation?

→ Correlation is used to obtain data which are unique for each run of the script and which are generated by nested queries. Correlation provides the value to avoid errors arising out of duplicate values and also optimizing the code (to avoid nested queries). Automatic correlation is where we set some rules for correlation. It can be application server specific. Here values are replaced by data which are created by these rules. In manual correlation, the value we want to correlate is scanned and create correlation is used to correlate.

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

There are 5 steps for developing a vuser script:

→ recording the vuser script .
→ edit the vuser script.
→ runtime setting .
→ run the vuser script in stand-alone mode.

→ incorporate the vuser script into a LoadRunner scenario.

5. How load runner interact with the application?

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

6. How many Vusers are required for load testing?

→ For 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 time?

Response time-
Response time is the amount of time from the moment that a

user sends a request until the time that the application indicates that the request has completed.

Through put-
indicates the number of transactions per second an application can handle, the amount of transactions produced
over time during a test.

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

→ hits per second means no of hits made by the client to the server. request/sec means how many requests that made by the client in one second.

Selenium IDE

1.What is automation testing?

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.

2.Which are the browser supported by selenium IDE?

1. Firefox browser

2.Chrome browser

3. What are the benefits of automation testing?

Saves time

Automating the testing process helps the testing team to use less time to validate newly created features. For instance, in manual testing, there is a need to write thousand test cases for a calculator application, but automation makes the process much faster.

Productivity improvement

As during execution, automation tests do not require human intervention, so testing an application can be done late at night, and we can get the results next morning. Software developers and testers require less time on automation testing.

Accuracy improvement

In manual testing, there is a chance of mistakes whether you are an experienced testing engineer. The chances of errors may increase when testing a complex use case. But Automation testing reduces the chances of errors. There is good accuracy, as we will get the same result each time on performing the same test cases.

4. What are the advantages of selenium?

Open Source

One of the most important benefits of Selenium test automation is its Open Source Accessibility. As it is an open-source tool, anyone can download and use the source code. It can also be refactored based on project requirements. This improves the functionality of predefined functions and classes. Selenium has become the most dependable web automation tool because of the ease of developing test scripts to validate the functionality.

Multi-Language Support

This must be the absolute and most imperative factor for any skilled software individual to enter the Automation Testing domain. Testers normally use the most common languages for writing Selenium test automation code: C #, Java, PHP, Perl, Python, and Ruby. In most cases,

enterprises may prefer to stick with the language already used by testers, thereby eliminating the need to learn a new language. But it is convenient to opt for a new language in several instances. Selenium test automation is invaluable in such situations. For instance, if the team is new or the software is being revamped, and the legacy language is now obsolete, Selenium allows the option to opt for a new and easier language for testing.