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

**• Which components have you used in Load Runner?**

* **Virtual user generator (VUGEN)**  
  Itrecords Vuser scripts that emulate the step of real users using the application.
* **Controller**  
  it is an administrative center for creating ,maintaining  ,and executing scenarios .starts and stops load tests, and perform other administrative tasks
* **Analyser**

uses the load test results to create graphs and reports that are used to correlate system information and identify both bottlenecks and performance issues.

**• How can you set the number of Vusers in Load Runner?**

* In that grid there's also a column for "Vusers". For your script the value will be set to 1 by default. If you want to increase that number, just double-click on the grid to edit the value.

**• What is Correlation?**

* Correlation is the fundamental concept and the first challenge faced by the performance testers while scripting the business processes for load testing. Correlation is used to capture the dynamic values returned by the server

**• What is the process for developing a Vuser Script?**

1. Step 1- Record the Vuser Script.
2. Step 2- Playback and improve the recorded vuser script.
3. Step 3- Define and test the different run-time parameters.
4. Step 4- Use the script in a LoadRunner scenario.

**• How Load Runner interacts with the application?**

* 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

**• How many VUsers are required for load testing?**

* Time taken for 1 user to complete 1 transaction: [a] + [b] + [c] = 6 second In 1 hour a user can do: 60\*60/6 = 600 transactions To do 280,000 transactions per hour, we need: 280,000/600 = 467 VUsers After identifying the scripts and the total VUsers, plan the LoadRunner test scenario for the same.

**• What is the relationship between Response Time and Throughput?**

* 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.
* **What is Automation Testing?**
* Automated testing is the implementation of an automation tool to execute test cases.

This is well-suited for projects that are large or require testing to be repeated multiple times. It also could be applied to projects that already have been through an initial manual testing process.

**• Which Are The Browsers Supported By Selenium Ide?**

* Currently, Firefox, Chrome, Edge, IE, and Safari are supported and the Selenium IDE has great documentation on how to configure your environment.

**• What are the benefits of Automation Testing?**

* Saving Costs.
* Faster Feedback Loop.
* Better Allocation of Resources.
* Guarantees Higher Accuracy.
* Increased Test Coverage.
* Detects bugs earlier.
* Test at Scale.
* Maximizes ROI.

**• What are the advantages of Selenium?**

* 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.

**• Why testers should opt for Selenium and not QTP?**

* 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.