Module-4 Automation Core Testing

(Load Runner Up and Selenium IDE)

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

* 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

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

1. Add new Vusers to Down state. Add the desired number of Vusers to the Down state.
2. Add new VUDs to Down state. Add the desired number of VUDs to the Down state.
3. Initialize Vusers from Down. ...
4. Run Vusers from Down. ...
5. Run Vusers from Ready. ...
6. Stop Vusers. ...
7. Reset Vusers.

**• What is Correlation?**

Correlation in performance testing is used to account for dynamic values. Many web applications have dynamic data that changes every time the user runs that web application.

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

**A vuser script may be created in four steps.**

* 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.

**• 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 a software testing technique that automates the process of validating the functionality of software and ensures it meets requirements before being released into production. With automated testing, an organization can run specific software tests at a faster pace without human testers.

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

**Here are some popular IDEs that are well-suited for Selenium automation testing:**

* Eclipse (for Java)
* IntelliJ IDEA (for Java)
* Visual Studio (for C#)
* PyCharm (for Python)
* Visual Studio Code (for Java, Python, JavaScript, etc.)
* Sublime Text or Atom
* Jupyter Notebook (for Python)
* NetBeans (for Java)

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

**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?**

* Open Source Availability. Open source availability is one of the many advantages of using Selenium.
* Support for Major Languages.
* Flexible Test Management.
* Multi-Browser Use.
* Easy Cross-Device Testing.
* Reusable Automation Test Suites.
* Simple Framework for Users.
* Enhanced Collaboration.

**• 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.