Module 5 : : Automation Core Testing (Load Runner Up and Selenium IDE)

1.   Which components have you used in Load Runner?

Ans.   The key components of Load Runner are:

Vuser generator – For generating Scripts

Controller – For creating and executing scenarios

Analyzer – To analyze results.

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.   LoadRunner identifies dynamic values (like session IDs) from server responses and captures them for use in subsequent requests, ensuring the script behaves as a real user would.

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

Ans.   There are four steps for developing a vuser script.

Step- 1: Record the Vuser Script.

Step- 2: Playback / Enhance the recorded vuser script.

Step- 3: Define the various run-time settings & check

Step- 4: Incorporate the script in a LoadRunner scenario

5.   How Load Runner interacts with the application?

Ans.   Protocol is used in Load Runner to interact with the application.

6.   How many VUsers are required for load testing?

Ans.   The number of VUsers required depends on your system under test, network configurations, hardware settings, memory, operating system, software applications objective of a performance test. There can not be any generic value for Vuser.

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

Ans.   The Throughput shows the amount of data in bytes that the Vusers received from the server in a second. When It is compared with transaction response time, throughput and response time get decreased.

The peak throughput and highest response time would occur approximately at the same time.

8.   What is Automation Testing?

Ans.   Automation testing refers to the automatic testing of the software in which developer or tester write the test script once with the help of testing tools and framework and run it on the software. The test script automatically test the software without human intervention and shows the result (either error, bugs are present or software is free from them).

9.   Which Are The Browsers Supported By Selenium Ide?

Ans.   Selenium IDE, the Integrated Development Environment (IDE) from Selenium, is available as a browser extension **for Google Chrome, Mozilla Firefox, Microsoft Edge, IE and safari.**

The Selenium IDE has great documentation on how to configure your environment.

10.   What are the benefits of Automation Testing?

Ans.   Following are the Automation benefits:
- 70% faster than the manual testing
- Wider test coverage of application features
- Reliable in results
- Ensure Consistency
- Saves Time and Cost
- Improves accuracy
- Human Intervention is not required while execution
- Increases Efficiency
- Better speed in executing tests
- Re-usable test scripts
- Test Frequently and thoroughly
- More cycle of execution can be achieved through automation
- Early time to market

11.   What are the advantages of Selenium?

Ans.   Following are the advantages of Selenium:
- **Open Source:** Selenium is free to use, which makes it accessible for individuals and organizations without the need for costly licenses.

- **Cross-Browser Testing:** It supports multiple browsers (Chrome, Firefox, Safari, Edge) and platforms, allowing tests to run on various environments.

- **Multiple Language Support:** Selenium allows users to write tests in several programming languages, including Java, C#, Python, Ruby, and JavaScript, making it flexible for different development teams.

- **Integration with Other Tools:** It can be easily integrated with other testing frameworks (like TestNG and JUnit) and CI/CD tools (like Jenkins), enhancing the automation workflow.

- **Support for Mobile Testing:** Selenium can be used in conjunction with tools like Appium for testing mobile applications, enabling a broader testing scope.

- **Active Community:** Being widely used, Selenium has a large community and extensive documentation, providing support and resources for users.

- **Reusable Code:** Test scripts can be reused across different tests, reducing redundancy and maintenance efforts.

- **User-Friendly:** Selenium IDE provides a simple way to create tests without extensive programming knowledge, making it accessible for non-developers.

12. **Why testers should opt for Selenium and not QTP?**
Ans.

In simple words,
Selenium is:
- Free
- Flexible
- Community-driven
- Easy to integrate

QTP is:
- Expensive
- Limited
- Difficult to learn
- Hard to integrate

Just Because of these reasons, Testers prefer Selenium for its flexibility, cost-effectiveness, and community support.