Module-4 Automation Core Testing

(Load Runner Up and Selenium IDE)

Q-1 Which components have you used in Load Runner?

Virtual user generator(VUGEN): -
- Itrecords Vuser scripts thatemulate the step of real users using the applicaton.

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 corelate system information and identify both bottlenecks and performance issues.

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

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

Q-3 What is Correlation?

- Correlation is used to obtain data which is unique for each run of your test script. While recording, these dynamic values are hard-coded in your script causing the script to fail during playback. Correlation is a technique where dynamic values are not hard-coded in your script but are extracted at run-time to avoid failure.

Q-4 What is the process for developing a Vuser Script?

1. **Record the Script**: Usually, this is the first step of scripting where every user action is recorded into a script.

2. **Replay and Verify**: Once the script is recorded, reply the script to ensure its working right. Verify any impact through application frontend or database.

3. **Enhance the Script**: Once recording has been verified, enhance script by adding checkpoints, validating data, adding transactions and rendezvous points.

4. **Replay and Verify:** As earlier, re-paly your script and verify that everything is working as intended.

5. **Configure Runtime** Settings: Configure and control pacing duration, think time variation, proxy setting and whether you wish to ignore any external resources.

6. **Use for Load Scenarios:** Formulate load scenarios based on test objectives. Use load distribution and geo-wide agents to make real like scenarios.

Q-15 How Load Runner interacts with the application?

- Protocol is used in Load Runner to interact with the applicaton.

Q-6 How many VUsers are required for load testing?

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

Q-7 What is the relationship between Response Time and Throughput?

- The Throughput graph shows the amount of data in bytes that the Vusers received from the server in a second. When we compare this with the transaction response time, we will notice that as throughput decreased, the response time also decreased. Similarly, the peak throughput and highest response time would occur approximately at the same time.

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

- Hits per second mean the number of hits the server receives in one second from the vuser. Request per second is the number of request the vuser will request from the server

Q-9 What is Automation Testing?

- Test automation is the use of software to control the execution of tests, the comparison of actual outcomes to predicted outcomes, the setting up of test preconditions, and other test control and test reporting functions.
- Commonly, test automation involves automating a manual process already in place that uses a formalized testing process.
- Although manual tests may find many defects in a software application, it is a laborious and time consuming process.

Q-10 Which Are The Browsers Supported By Selenium Ide?

- Selenium IDE has add-ons for Firefox and Chrome browsers. Selenium IDE comes with a rich set of commands that are powered by Selenese, and it allows you to record and test different interactions of a web application with the browser.

Q-11 What are the benefits of Automation Testing?

- 70% faster than the manual testing
- 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

Q-12 What are the advantages of Selenium?

- Very easy to use and install.
- No programming experience is required, through kno wledge of HTML and DOM are needed
- Can export tests to formats usable in Selenium RC and WebDriver
- Has built-in help and test results reporting module.
- Provides support for extensions.

Q-13 Why testers should opt for Selenium and not QTP?

- Selenium is more popular than QTP as
  - Selenium is an open source whereas QTP is a commercial tool
  - Selenium is used specially for testing web based applications while QTP can be used for testing client server application also
  - Selenium supports Firefox, IE, Opera, Safari on operating systems like Windows, Mac, Linux etc. however QTP is limited to Internet Explorer on Windows.
  - Selenium supports many programming languages like Ruby, Perl, Python whereas QTP supports only VB script.

Q-14 What is the full form of .ipa, .apk

- iPA: ios app store package

- APK: Android Application Package file