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

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

   Virtual user generator (VUGEN)
   It records 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.

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

   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?**

   Correlation is the capturing of dynamic values passed from the server to the client and back. We save this captured value into a LoadRunner parameter, and then use this parameter in the script in place of the original value.

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-play your script and verify that everything is working as intended.

   5. Configure Runtime Settings: Configure and control pacing duration, think time variation, proxy settings 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.

5. **How Load Runner interacts with the application?**

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

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, 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?**

   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. **To test the Performance testing on "Tops Technologies website" :- https://www.saucedemo.com/**

1. to Record all top level menu

2. to Record minimum 10 Vuser on this website

3. save all (Script,Design,Graph)

create a normal script of above website with correlate using hp default website.

9. **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.

10. **Which Are The Browsers Supported By Selenium Ide?**

The supported browsers include Mozilla Firefox, Google Chrome, Microsoft Edge, Safari, and Opera, among others.

11. **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.

12. **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.

13. **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.

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