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

Q.1 Which components have you used in Load Runner?
Ans:-
 The following components are used for Load Runner.
1) **Vuser generator** – For generating Scripts
2) **Controller** – For creating and executing scenarios
3) **Analyzer** – To analyze results.

Q.2 How can you set the number of Vusers in Load Runner?
Ans:-
When Creating Scenario in Controller we have to add the particular script which we want to run. There we have to set the number of Vusers to run for that script. but you have to add Vusers depending on the your LoadRunner license for how many Vusers it supports.

Q.3 What is Correlation?
Ans :-
A correlation is a statistical measure of the relationship between two variables. The measure is best used in variables that demonstrate a linear relationship between each other. The fit of the data can be visually represented in a scatterplot. Using a scatterplot, we can generally assess the relationship between the variables and determine whether they are correlated or not.

Q.4 What is the process for developing a Vuser Script?
Ans :-
There are 5 steps for developing a vuser script.
1) Recording the vuser script .
2) Edit the vuser script.
3) Runtime setting .
4) Run the vuser script in stand-alone mode.
5) Incorporate the vuser script into a LoadRunner scenario.

Q.5 How Load Runner interacts with the application?
Ans:-
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.

Q.6 How many VUsers are required for load testing?
Ans :-
Some years back, HP suggested an approach to calculate the required number of LG for a LoadRunner test. The same approach has been formulated in the calculator. As the Load Generator calculator requires some inputs it leads to running some small tests before getting the number of required LG for the test. Follow the below steps to get the input values:

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First VUser Memory: "First VUser Memory" is the memory consumed by one VUser. To determine this value check the available memory on the LG and note it down. Then, execute a test with 1 VUser for 15 minutes. There must be some decrease in available memory.

Note down the difference between currently available memory and initially available memory. Example: Before starting the test the available memory was 51440 MB memory. The available memory was reduced to 51428 MB during the test. So, the First VUser Memory value is 12 MB (=51440-51428).

Each Additional VUser Memory: Run the same test for 5 VUsers. Keep the same delay at the start and have each user start one minute apart. Monitor the load generators available MB of RAM and note the drop in free RAM space as each user starts. Average the amount of RAM that the second virtual user on up uses and this is the "Each Additional VUser Memory". Example: The initially available memory was 51440 MB. During the test, it reduced to 51428 MB, 51418 MB, 51409 MB, 51399 MB and 51388 MB. Hence the average of differences is 10.4 MB (=(12+10+9+10+11)/5).

Total LG RAM: Determine the total RAM on the load generator. Example: 131059 MB
LG RAM used by OS: Determine the RAM used by the Operating System on the load generator. Example: 79564 MB

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

The average transaction's response time tends to decrease as overall throughput increases. However, by allocating a disproportionate amount of resources to a specific query, you can reduce response time at the expense of overall throughput.

That's all there is to it! When we test websites and apps to ensure they work well for a large number of people, we pay close attention to throughput and response time. Just as we want our roads to be able to handle a large number of cars without becoming too congested, we want our websites and apps to be able to handle a large number of users without becoming too slow or frustrating.

Load Focus is an all-in-one cloud testing platform that allows you to easily perform load and performance tests to ensure that your website, application or API can handle high traffic volume and usage. One of the key metrics that you can measure with LoadFocus is response time and throughput.