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

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

**1. virtual user generator :** used to record and create scripts that simulate user ineraction with applications under load .

**2. Controller:** Manages and controls the load testing scenarios. It orchestrates the actions of virtual users , monitors system resources and generates load on the system.

**3. load generator:** Executes the scripts created in VuGen to generate virtual user load on the system being tested.

**4. Analysis:** Analyzes the results gathered during load testing. It provides various graphs ,reports and statistics to help indentify performance bottlenecks and areas for optimization.

**5. Monitoring:** Provides real -time monitoring of system resources during the load test , allowing testers to identify any performance issues as they occur.

**6. Integrated Development Environment (IDE):** provides a user friendly interface for scripting , executing and analyzing load tests.

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

**Q.3 What is Correlation?**

**A correlation is a statistical measure that indicates the extent to which two or more variables fluctuate in relation to each other. A positive correlation indicates the extent to which those variables increase or decrease in parallel; a negative correlation indicates the extent to which one variable increase as the other decreases.**

**For example: A number of studies report a positive correlation between the amount of television children watch and the likelihood that they will become bullies. Media coverage often cites such studies to suggest that watching a lot of television causes children to become bullies. However, the studies only report a correlation, not causation. It is likely that some other factor- such as a lack of parental supervision – may be the influntial factor.**

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

**A vusers scripted may be created in four steps.**

**Step-1 Record the vusers Script.**

**Step-2 Playback and improve the recorded vusers script.**

**Step-3 Define and test the different run time parameters.**

**Step-4 Use the script in a load runner scenario.**

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

**Load runner simulates user activity by generating message 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.**

**Load runner can generate the scripts by recording them, such as logging HTTP requests between a client web browser and an applications web server.**

**Q.6 How many Vusers are required for load testing?**

**Concurrent virtual user calculation for example, if you run a load test with 10,000 virtual users, each making a request every 20 seconds ( 3 requests per minute), then you are making 30,000 requests per minute, which equals 500 requests per second.**

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

**Respose time and throughput are related. The response time for an average transcation 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 of that query. Conversely, you can maintain overall throughput by restricting the resources that the database allocates to a large query.**

**The trade off between throughput and response time becomes evident when you try to balance the ongoing need for high transcation throughput with an immediate need to perform a large decision support query.**

**Response time measures the performance of an individual transcation or query. Response time is typically treated as the elapsed time from the moment that a user enters a command or activates a function until the time that application indicates that the command or function has completed.**

**Response time and throughput**

**Response time and throughput are related. The response time for an average transcation tends to decrease as you increase overall throughput.**

**Response time measurement**

**To measure the response time for a query or application , you can use the timing commands and performance monitoring and timing functions that your operating system provides.**

**Q.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**