**ASSIGNMENT-5**

**MODULE-4 Automation core testing (Load Runner Up and selenium IDE)**

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

**ANS..**  Virtual User Generator(VuGen)

Controller

Load Generators

Analysis

LoadRunner Agents

**Q-2 How can you set the number of Vusers in load runner?**

**ANS..** Recording the script

Creating load test

Defining Vuser Groups

Setting Vuser Properties

Running the test

Monitoring and analyzing results

**Q-3 What is Correlation?**

**ANS..** Test Case Correlation

Defect Correlation

Traceability Matrix

Automation Script Correlation

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

**ANS..** recording the vuser script .  
  
edit the vuser script.  
  
runtime setting .  
  
run the vuser script in stand-alone mode.  
  
incorporate the vuser script into a load runner 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.

Virtual User Generator(VuGen)

Scripting

Protocols

Controller

Load Generarors

Monitoring and Analysis

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

**ANS..**  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're making 30,000 requests per minute, which equals 500 requests per second.

Peak Hour Page Views. [Expected]

Session Length in Seconds. [ =Page Load Time + User Think Time]

Test Duration in Minutes.

Concurrent Users.

**Q-7 What is the relationship between response time and throughput?**

**ANS.. Response Time:** Response time, also known as latency, is the time taken for a system to respond to a request. It measures how quickly the system can process a single transaction or request. In automation core testing, response time is typically measured for various types of operations or transactions to ensure that the system is responsive and meets performance requirements. A lower response time is generally desired as it indicates better system performance and user experience.

**Throughput:** Throughput, on the other hand, measures the number of transactions or requests processed by the system within a given time period. It represents the system's capacity to handle a certain workload efficiently. In automation core testing, throughput is often assessed by simulating a certain load on the system and measuring how many transactions it can handle within a specific timeframe. Higher throughput indicates better system scalability and capacity to handle concurrent users or transactions

**Q-8 To test the performance testing on “Tops Technologies website”:- <http://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)**

**ANS..**  Action()

{

web\_url("gts1c3.der",

"URL=http://pki.goog/repo/certs/gts1c3.der",

"Resource=1",

"RecContentType=application/pkix-cert",

"Referer=",

"Snapshot=t5.inf",

LAST);

web\_url("gtsr1.der",

"URL=http://pki.goog/repo/certs/gtsr1.der",

"Resource=1",

"RecContentType=application/pkix-cert",

"Referer=",

"Snapshot=t6.inf",

LAST);

web\_url("gts1c3.der\_2",

"URL=http://pki.goog/repo/certs/gts1c3.der",

"Resource=1",

"RecContentType=application/pkix-cert",

"Referer=",

"Snapshot=t7.inf",

LAST);

web\_url("gtsr1.der\_2",

"URL=http://pki.goog/repo/certs/gtsr1.der",

"Resource=1",

"RecContentType=application/pkix-cert",

"Referer=",

"Snapshot=t8.inf",

LAST);

web\_url("RapidSSLTLSRSACAG1.crt",

"URL=http://cacerts.rapidssl.com/RapidSSLTLSRSACAG1.crt",

"Resource=1",

"RecContentType=application/pkix-cert",

"Referer=",

"Snapshot=t9.inf",

LAST);

return 0;

}

**Q-9 Create a normal script of above website with correlate using hp default website.**

**ANS..** Action()

{

web\_url("index.htm",

"URL=http://127.0.0.1:1080/WebTours/index.htm",

"Resource=0",

"Referer=",

"Snapshot=t1.inf",

"Mode=HTML",

LAST);

web\_url("header.html",

"URL=http://127.0.0.1:1080/WebTours/header.html",

"Resource=0",

"Referer=http://127.0.0.1:1080/WebTours/index.htm",

"Snapshot=t2.inf",

"Mode=HTML",

LAST);

web\_url("welcome.pl",

"URL=http://127.0.0.1:1080/cgi-bin/welcome.pl?signOff=true",

"Resource=0",

"RecContentType=text/html",

"Referer=http://127.0.0.1:1080/WebTours/index.htm",

"Snapshot=t3.inf",

"Mode=HTML",

EXTRARES,

"Url=http://pki.goog/repo/certs/gts1c3.der", "Referer=", ENDITEM,

"Url=http://pki.goog/repo/certs/gtsr1.der", "Referer=", ENDITEM,

LAST);

lr\_save\_string(lr\_decrypt("6620c77998a0b4f6"), "PasswordParameter");

web\_submit\_data("login.pl",

"Action=http://127.0.0.1:1080/cgi-bin/login.pl",

"Method=POST",

"RecContentType=text/html",

"Referer=http://127.0.0.1:1080/cgi-bin/nav.pl?in=home",

"Snapshot=t4.inf",

"Mode=HTML",

ITEMDATA,

"Name=userSession", "Value=138794.996921831HVDQczHpzftVzzzHtciDfpzAfQcf", ENDITEM,

"Name=username", "Value=jojo", ENDITEM,

"Name=password", "Value={PasswordParameter}", ENDITEM,

"Name=login.x", "Value=47", ENDITEM,

"Name=login.y", "Value=8", ENDITEM,

"Name=JSFormSubmit", "Value=off", ENDITEM,

LAST);

return 0;

}

**Q-10 What is Automation Testing?**

**ANS..**  refers to the practice of using software tools and scripts to automate the execution of tests in software development and quality assurance processes. It involves creating scripts or test cases that can be run automatically, rather than requiring manual effort. Test automation aims to increase the efficiency and effectiveness of testing by reducing human errors, saving time, and improving test coverage.

While all testing, including regression testing, can be done manually, there are often greater benefits to doing much of it automatically. Automation testing offers flexibility.

You can run tests at any time,

It is faster

It is cost-effective

enables quality engineers to handle a higher test volume than manual testing

**Q-11 Which Are The Browsers Supported By Selenium Ide?**

**ANS..** Google Chrome

Mozilla Firefox

Microsoft Edge (Chromium based)

Microsoft Edge (Legacy Edge)

Safari

Internet Explorer

**Q-12 What are the benefits of Automation Testing?**

**ANS..** Saving Costs.

Faster Feedback Loop.

Better Allocation of Resources.

Guarantees Higher Accuracy.

Increased Test Coverage.

Detects bugs earlier.

Test at Scale.

Maximizes ROI.

**Q-13 What are the advantages of Selenium?**

**ANS..** Cross-Browser Compatibility

Platform Independence

Support for Multiple Programming Languages

Large Community and Resources

Integration with Other Tools

Flexibility and Extensibility

Support for Parallel Execution

Open Source Availability. Open source availability is one of the many advantages of using Selenium. ...

Flexible Test Management. ...

Multi-Browser Use. ...

Easy Cross-Device Testing. ...

Reusable Automation Test Suites. ...

Simple Framework for Users. ...

Enhanced Collaboration.

**Q-14 Why testers should opt for Selenium and not QTP?**

**ANS..** 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.

Open Source vs. Commercial Tool

Platform Independence

Programming Language Support

Community Support and Flexibility

Integration with Testing Frameworks

Integration with Testing Frameworks

Web Application Testing Focus

Cost Considerations