1. **Which components have you used in Load Runner?** 
   * Load runner has 4 components: -
     + Virtual Generator
     + Controller
     + Analyzer
     + Load Generator
   * Vrug(Virtual User Generator):By using these we can record the script and enhancement the script those are do the parametrization and correlation.
   * Load runner controller: Where we can configure and do load test scenarios using the recorded script from Vuug.
   * Load runner analyzer: These can be used for analysis and generating the reports at the controller after test execution.

* Remaining having two components, those are load generator and agent processor
  + Load generator: Load generator which is generates the load from controler and having between the servers and agent processer.
  + Agent processer: Which is between load controller and load generator, by using these we can generate the load.

1. **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.

1. **What is Correlation?**

* Correlation refers to a process for establishing the relationships between two variables. You learned a way to get a general idea about whether or not two variables are related, is to plot them on a “scatter plot”.
* Correlation describes the strength of an association between two variables, and is completely symmetrical, the correlation between A and B is the same as the correlation between B and A. However, if the two variables are related it means that when one changes by a certain amount the other changes on an average by a ...

1. **What is the process for developing a Vuser Script?**
   * A vuser script may be created in four steps.

Step 1- Record the Vuser Script.

Step 2- Playback and improve the recorded vuser script.

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

Step 4- Use the script in a Load Runner scenario.

1. **How Load Runner interacts with the application?** 
   * Load Runner 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.
2. **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're making 30,000 requests per minute, which equals 500 requests per second.
   * For this purpose:
     + Comment out the “Logout” transaction of the VUGen script.
     + Run the test for a few minutes. ...
     + Collate the result.
     + Open the result file in Load Runner Analysis Tool.
     + Open the “Connections” graph. ...
     + Note down the number of connections established during the one user test (No.
3. **What is the relationship between Response Time and Throughput?**
   * Throughput: -
     + Basically it is a response data size/second.
   * Response Time: -
     + Response time is the time it takes from when a user inputs data into the application until the application outputs a response to that input.
4. **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, and Graph)**

* <https://drive.google.com/drive/folders/19oYubquCfSLhD3XFC8B8TIWwn0r3EdjS?usp=sharing>

1. **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.
     + In addition it may not be effective in finding certain classes of defects.
     + Test automation is a process of writing a computer program to do testing that would otherwise need to be done manually.
     + Once tests have been automated, they can be run quickly.
     + This is often the most cost effective method for software products that have a long maintenance life, because even minor patches over the lifetime of the application can cause features to break which were working at an earlier point in time.
   * Approach to test automation:
     + Code-driven testing
     + Graphical user-interface testing
   * Factors of automation test tool:
     + Test repeatability
     + Criticality/risk of applications
     + Operational simplicity
     + Ease of automation
     + Level of documentation of the function (requirements, etc.)
2. **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.
3. **What are the benefits of Automation Testing?** 
   * This are the benefits of Automation Testing: -
     + 70% faster than the manual testing
     + Wider 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
4. **What are the advantages of Selenium?** 
   * This are the advantages of selenium: -
     + Selenium is pure open source, freeware and portable tool.
     + Selenium supports variety of languages that include Java, Perl, Python, C#, Ruby, Groovy, Java Script, and VB Script. etc.
     + Selenium supports many operating systems like Windows, Macintosh, Linux, Unix etc.
     + Selenium supports many browsers like Internet explorer, Chrome, Firefox, Opera, and Safari etc.
     + Selenium can be integrated with ANT or Maven kind of framework for source code compilation.
     + Selenium can be integrated with TestNG testing framework for testing our applications and generating reports.
     + Selenium can be integrated with Jenkins or Hudson for continuous integration.
     + Selenium can be integrated with other open source tools for supporting other features.
     + Selenium can be used for Android, IPhone, Blackberry etc. based application testing.
     + Selenium supports very less CPU and RAM consumption for script execution.
5. **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.
   * Selenium can execute tests in parallel.
   * QTP can only execute in parallel but using Quality Center which is again a paid product.
6. **To validate the tops technologies website Contact us page and enter your friend detail at last “Login and sidemenu”** [**https://www.saucedemo.com/**](https://www.saucedemo.com/)
   * <https://drive.google.com/drive/folders/19oYubquCfSLhD3XFC8B8TIWwn0r3EdjS?usp=sharing>