

MODULE 5 - ASSIGNMENT

Que: What is Automation Testing?

Automation testing 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. It 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.

Que: Which are the browsers supported by Selenium IDE?

The browsers supported by Selenium IDE are Google Chrome, Mozilla Firefox, and Microsoft Edge.

Que: What are the benefits of Automation Testing?

- Automation testing is 70% faster than the manual testing.
- It has wider test coverage of application features.
- The results received from automation testing are reliable.
- Ensure Consistency.
- Automation testing saves time and cost.
- It improves accuracy in testing.
- At the time of execution human intervention is not required.
- Increases Efficiency.
- Automation has a better speed in executing tests.
- Test scripts are re-usable.

- Automation test can be done Frequently and thoroughly.
- More cycle of execution can be achieved through automation.
- Early time to market.

Que: What are the advantages of Selenium?

The advantages of Selenium are as follows:

1) Open-source:

Selenium is an open-source automation testing framework, which makes it a freeware and portable testing tool. As it is an open-source framework, it doesn't involve any licensing cost, which is a significant advantage over other tools for any organization to save the cost while implementation.

2) Portable Script for Cross Browser Testing:

With Selenium, you can perform cross-browser testing across Firefox, Chrome, Internet Explorer, and Safari and you can do that with only one test script which you can use on almost every platform like Windows, Mac, and Linux. Users can use different devices and platforms to access the web application; selenium allows the testing team to enhance their test coverage with just one test script which can be used over all the devices and platforms.

3) Early Defects:

As a testing team member, you might aware of the importance of early defect detection which leads to cost-effective code rework. Selenium not only helps you to find defects earlier, but also it helps in maintaining the overall velocity of code development while ensuring that the functionality of the website is not compromised.

4) Efficient Testing:

Selenium automation is much faster than other automation testing techniques which make it the most efficient tool for web application testing.

5) Different Programming Language Support:

Selenium support multiple programming languages like Java, Perl, JavaScript, C#, Ruby, Python, and many more, which makes it is easy to integrate with the dev environment. Although it has its own script, it doesn't restrict you to that specific language. Testing teams and developers can use it with any language that they are proficient with.

6) Easy Implementation:

The user-friendly interface of selenium makes it easy for the testing team and developers to execute test cases across different platforms. The open-source features allow testing team members to write the script with their own proficiency so that it becomes easy to develop customized tests. Also, the test run report generation capability of selenium is one of the main reasons to choose it because it helps testers extract test results and take necessary action for improvements.

7) Suite of Tools:

Selenium is not a single entity. It consists of multiple testing tools, and that's why it is referred to as a suite. Each of the selenium testing tools is specifically designed for different testing requirements. For example, selenium has the capability to support Selenium IDE, Selenium Grid, Selenium Webdriver, and Selenium RC.

8) Integration with Other Tools:

Selenium follows its own set of standards which allow it to use with popular software development and testing tools easily. For example, it easily

integrates SC compilers such as Maven and ANT, cloud-grids like LambdaTest, and many other test management tools.

Que: Why testers should opt for Selenium and not QTP?

The testers should opt for Selenium as selenium tool suite has many advantages over QTP and they are mentioned below -

Selenium	QTP
Open source, free to use, and free of charge.	Commercial.
Highly extensible.	Limited add-ons.
Can run tests across different browsers.	Can only run tests in Firefox , Internet Explorer and Chrome.
Supports various operating systems.	Can only be used in Windows.
Supports mobile devices.	Supports mobile device using 3rd party Software.
Can execute tests while the browser is Minimized.	Needs to have the application under test to be visible on the desktop.
Can execute tests in parallel.	Can only execute in parallel but using Quality Center which is again a paid product.
Can test both web and desktop applications.	Can only test web applications.
Comes with a built-in object repository.	Has no built-in object repository.

Automates faster than Selenium because it is a fully featured IDE.	Automates at a slower rate because it does not have a native IDE and only third party IDE can be used for development.
Data-driven testing is easier to perform because it has built-in global and local data tables.	Data-driven testing is more cumbersome since you have to rely on the programming language's capabilities for setting values for your test data.

Que: To validate the Swaglab website Login and logout process page
<https://www.saucedemo.com>