**Software Testing Assignment**

# Module – 5 Advance (Selenium IDE)

* + 1. **What is Automation Testing?**
* Automated testing is a software testing technique that automates the process of validating the functionality of software and ensures it meets requirements before being released into production.
* With automated testing, an organization can run specific software tests at a faster pace without human testers.
* "Automation testing refers to the automatic testing of the software in which developer or tester write the test script once with the help of testing tools and framework and run it on the software. The test script automatically tests the software without human intervention and shows the result.”
* Automation testing needs manual effort when creating initial scripts, and further process is performed automatically to compare the actual testing result with expected results. This can be performed at these levels a) unit-level automation, b) API testing c) user interface.
  + 1. **Which Are the Browsers Supported by Selenium Ide?**
* Currently, Firefox, Chrome, Edge, IE, and Safari are supported by Selenium IDE.
  + 1. **What are the benefits of Automation Testing?**

## Advantages of automation testing are as below:

1. It saves time and cost in testing and provides an increment in the efficiency of testing.
2. Automation testing improves the accuracy of testing
3. With automation, more cycles can be achieved
4. It also ensures consistency in testing
5. It is testing scripts can be reusable
6. Ability to cover the test application features widely
7. Automation testing results are reliable
8. In this testing, human intervention is not required
9. Speedily executes the testing process frequently and thoroughly
   * 1. **What are the advantages of Selenium?**

## The benefits of using Selenium as an automation testing tool are listed below –

1. It is open-source and comes free without licensing cost.
2. It can used be used with more than one programming languages like C#, Java, Python, JavaScript, and so on.
3. It can be used in more than one platform like Windows, Mac, Linux, and so on.
4. It can be used for testing an application in more than one browser like Chrome, Firefox, IE, Safari, and so on.
5. It has a big community assistance for resolving users' queries.
6. It can support record and playback features with the help of Selenium IDE.
7. It can reduce use of resources and time consumption by executing tests in headless mode.
8. It can execute tests in more than one operating system and browsers simultaneously by dispersing tests in multiple machines with the help of Selenium Grid.
9. It can be integrated easily with various test management, reporting, build and continuous integration tools, third party APIs and test frameworks.
10. It can be used for testing multiple devices like Blackberry, iPhones, Android.
11. It has easy and friendly APIs.
12. It supports simulation of mouse and keyboard actions.
13. It comprises various test tools – Selenium Grid, Selenium IDE, and Selenium RC, hence often called as a suite. Each of these tools are used for a specific purpose.
14. It is flexible since it can be used with multiple frameworks like TestNG, JUnit and so on.
15. It gives reusability of tests since the same tests developed can be validated against multiple browsers.
16. It can be used for a wide range of testing which includes functional, regression, end-to-end, cross browser, smoke, sanity, acceptance, integration, and so on.
    * 1. **Why testers should opt for Selenium and not QTP?**

* Selenium is an open-source test automation framework that can automate web applications. It is a popular choice for testers because it is free to use and supports many programming languages, including Java, Python, Ruby, and C#. Selenium allows scripting as well as record-and-playback via selenium IDE.
* While QTP only supports the VBScript programming language. Test scripts cannot be written in any other language. Also QTP test scripts run only on the Windows environment. They cannot be run across all browsers.
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