Software Testing Assignment

Module: -5

(1) What is Automation Testing?

➢ Automation testing is a software testing approach that involves the use of specialized tools and scripts to perform tests on software applications automatically, without requiring manual intervention.

➢ These tests are typically designed to validate the functionality, performance, and reliability of the software under test.

➢ By automating repetitive and time-consuming testing tasks, automation testing aims to increase efficiency, reduce human error, and provide faster feedback on the quality of the software being developed.

(2) Which Are The Browsers Supported By Selenium Ide?

➢ Google Chrome

➢ Mozilla Firefox

➢ Microsoft Edge

(3) What are the benefits of Automation Testing?

➢ **Time Efficiency** : Automated tests can be executed much faster than manual tests, allowing for rapid feedback on the quality of the software. This acceleration in testing speed enables faster releases and shorter development cycles.

➢ **Cost Savings** : Although there's an initial investment in setting up automation frameworks and creating test scripts, automation ultimately saves time and resources in the long run. Reduced reliance on manual testing means lower labor costs and increased productivity.

- ➤ **Support for Agile and DevOps Practices**: Automation testing aligns well with Agile and DevOps methodologies, enabling rapid and continuous delivery of high-quality software. By automating testing processes, teams can iterate more quickly and respond promptly to changing requirements and market demands.

- ➤ **Improved Accuracy**: Automated tests are less prone to human error compared to manual testing, leading to more accurate and reliable test results. This accuracy is essential for ensuring the quality and stability of the software being developed.

- ➤ **Early Bug Detection**: Automation testing detects defects early in the development cycle, when they're typically less expensive and time-consuming to fix. Early bug detection prevents issues from escalating into more significant problems later in the development process.

- ➤ **Continuous Integration/Continuous Deployment (CI/CD)**: Automation testing seamlessly integrates with CI/CD pipelines, allowing automated tests to be triggered automatically with each code commit. This integration ensures early detection of defects and enables faster and more reliable software deployments.

(4) What are the advantages of Selenium?

Selenium is a popular open-source automation testing framework primarily used for web applications. It offers several advantages:

- ➤ **Cross-browser Compatibility**

- ➤ **Platform Independence**

- ➤ **Language Support**

- ➤ **Integration with Testing Frameworks**

- ➤ **Support for Parallel Execution**

- ➤ **Open Source**

(5) Why testers should opt for Selenium and not QTP?

The choice between Selenium and QTP (QuickTest Professional), also known as Unified Functional Testing (UFT), depends on various factors including project requirements, budget constraints, technical expertise, and organizational preferences.

- **Cost**
- **Platform Independence**
- **Language Support**
- **Community Support**
- **Support for Web Technologies**
- **Flexibility and Extensibility**