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COURSE: Diploma In Softwere Testing

ASSIGNMANT: Modual6 (**Introduction To Automation**)

1. What is Automation Testing?

**Automation Testing** is the process of using specialized software tools or scripts to perform tests on software applications automatically, without the need for manual intervention.

It helps verify the functionality, performance, and security of an application by executing pre-scripted test cases. This approach is widely used in software development to improve testing efficiency, accuracy, and coverage, especially when there is a need for repetitive testing or testing of complex systems.

1. Which Are The Browsers Supported By Selenium Ide?

Selenium IDE supports **Google Chrome**, **Mozilla Firefox**, **Microsoft Edge**, and **Safari** (with limited support).

1. What are the benefits of Automation Testing?

* The benefits of **Automation Testing** include:
* **Speed**: Automated tests run faster than manual tests, improving test execution time.
* **Reusability**: Test scripts can be reused across different versions of the application, saving time and effort.
* **Accuracy**: Automation eliminates human error, ensuring more consistent and reliable test results.
* **Cost-Effectiveness**: Although the initial setup can be expensive, automation reduces the cost of repetitive manual testing in the long run.
* **Scalability**: Automated tests can handle complex and large-scale testing more effectively.
* **Continuous Integration/Continuous Deployment (CI/CD)**: Automation supports CI/CD pipelines, enabling faster feedback and quicker releases.
* **Better Coverage**: Automation allows for a higher number of test cases to be executed, covering more scenarios and edge cases.
* **24/7 Execution**: Automated tests can be run anytime, including overnight or during off-hours, maximizing productivity.
* **Parallel Execution**: Automation enables running tests on multiple environments or browsers simultaneously, improving test coverage.
* **Faster Feedback**: Automation provides quicker insights into the quality of the software, helping developers identify issues earlier in the development cycle.

Overall, automation increases efficiency, reduces the risk of errors, and supports rapid and reliable software development.

1. What are the advantages of Selenium?

Pros.

* + Very easy to use and install.
  + No programming experience is required, through knowledge of HTML and DOM
  + are needed.
  + Can export tests to formats usable in Selenium RC and WebDriver
  + Has built-in help and test results reporting module.

1. Why testers should opt for Selenium and not QTP?

Testers may prefer **Selenium** over **QTP** (now called **UFT** - Unified Functional Testing) for several reasons, particularly in terms of flexibility, cost, and compatibility with modern testing practices. Here are the key reasons why Selenium might be the preferred choice:

* **Cost-Effectiveness (Open Source vs. Paid)**
* **Cross-Browser and Cross-Platform Testing**
* **Support for Modern Web Technologies**
* **Flexibility in Test Execution**
* **Popularity in the Industry**
* **Customization and Extensibility**