Manual Testing

Manual testing is when an individual physically tests the software. By interacting with the application on a device (computer or mobile device). The user will evoke operational actions such as clicking, tapping, and typing.

This form of testing is quite crucial since QA teams will be ensuring the presentation and expectations are met from a human perspective.

Advantages of manual testing:

- The tester has a full view of the application sequence. Beyond functionality, getting a feel for user experience.
- Flexibility in testing. Testers can perform some random tests or different scenarios in mind without tools.
- Straightforward and easy to learn.
- A stronger understanding of the product.

Disadvantages of manual testing:

- Time-consuming. With many scenarios and tests to cover it can take time to finish testing.
- Human error can occur during tests.
- It can be highly costly for long-term projects.

Automation Testing

Automation testing is used to automate manual processes for functional and regression testing. You will need a tool to help prepare automating the test process.

Advantages of automation

- Faster testing.

- Accurate testing.
- Cost-effective.
- Great for long-term projects.
- Regression testing made easier.

Disadvantages of automation

- Maintaining test scripts can be difficult.
- Testing user experience is not an option.
- Challenges with complex scenarios.

Tools for Automation testing:

- Selenium web driver (open source)
- Playwright (open source)
- Cypress (open source)
- Provar (paid)
- Tricentis (paid)
- Copado (paid)

Many of these tools will require technical knowledge and should be further studied. Many open-source tools will require how to set up and use an IDE and a scripting language of choice.

The most popularly used languages are Python, Java, and JavaScript. Select the proper tool and language to get started with practicing automation.