CSE565 Codeless Testing Tools

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I. What is meant by codeless test automation?

Codeless test automation is a testing approach that allows users to create and execute test cases without writing any code. These tools usually come with intuitive interfaces and built-in test script generation capabilities to lowers the technical barrier, making it easier for teams to adopt automated testing practices. They are ideal for regression testing and other repetitive test scenarios.

II. An example: Katalon Studio

Katalon Studio aims to be an all-in-one solution for the entire testing lifecycle.

1. Testing covers multiple platforms, including web browsers, mobile, and APIs.

2. Powerful recording and playback feature.

3. Groovy can be used to write scripts for advanced testing needs.

4. Works well with popular CI/CD and test management tools.

5. Integrates AI features.

III. Regression Testing using Katalon Studio

1. Start Katalon Studio and create a new testing project.

2. Record an app usage session like a normal user using Web Record feature in Katalon Studio.

3. Inspect the recorded actions and save the script.

4. Combine multiple test script into a test suite so that you can execute them after the next code modification.

5. It can also integrate with CI/CD tools to automatically trigger tests after each code update.

IV. JUnit vs Katalon Studio

Feature	JUnit	Katalon Studio
Use Case	Unit testing	Functional testing and E2E testing
Requirement	Requires Java knowledge	Suitable for non-technical users
Test Setup	Writing code	Recording and keyword-driven
Automation	Manual scripting required	Pre-built automation features
Test Reporting	Simple text-based reports	Detailed and graphical test reports

V. References

1 B. Anderson, "Top 10 Codeless Testing Tools in 2020 Every Tester Should Know," Medium, [Online]. Available: https://briananderson2209.medium.com/top-10-codeless-testing-tools-in-2020-every-tester-should-know-2cb4bd119313. [Accessed: Nov. 22, 2024].

2 "Top 7 Codeless Testing Tools," Katalon Blog, [Online]. Available: https://katalon.com/resources-center/blog/codeless-testing-tools. [Accessed: Nov. 22, 2024].

3 "Codeless Automated Testing," Perfecto, [Online]. Available: https://www.perfecto.io/resources/codeless-automated-testing. [Accessed: Nov. 22, 2024].

4 "About Katalon Studio," Katalon Documentation, [Online]. Available: https://docs.katalon.com/katalon-studio/about-katalon-studio. [Accessed: Nov. 22, 2024].

5 "Regression Testing Tools," Katalon Blog, [Online]. Available: https://katalon.com/resources-center/blog/regression-testing. [Accessed: Nov. 22, 2024].

6 "JUnit Tutorial," TutorialsPoint, [Online]. Available: https://www.tutorialspoint.com/junit/index.htm. [Accessed: Nov. 22, 2024].