

□ 150-word summary for submission

Summary:

In this task, Selenium WebDriver with Python was used to automate the testing of a login page with both valid and invalid credentials. The automated script executed test cases, verified success and failure messages, and produced a success rate summary. Unlike manual testing, which is repetitive and time-consuming, AI-powered testing tools such as Selenium IDE with AI plugins or Testim.io can dynamically identify UI elements, adapt to interface changes, and generate new test cases automatically. AI improves test coverage by analyzing user behavior and previous defects to predict high-risk areas, ensuring that more scenarios are tested in less time. Additionally, AI can self-heal broken scripts when elements change, reducing maintenance effort. This results in faster feedback, higher accuracy, and more consistent testing outcomes compared to manual approaches.