

## PART 2 (TASK 2 ANSWER SUMMARY)

### Explain how AI improves test coverage compared to manual testing

#### ANSWER:

Automated testing helps verify the correct behavior of a login system by running repeatable test scenarios. In this task, I automated login functionality testing using **Selenium WebDriver**. Two test cases were created: one with **valid credentials** and one with **invalid credentials**. The valid login test successfully logged the user in using the credentials *student / Password123*, and a full-page screenshot of the confirmation page was captured. The invalid login test intentionally used incorrect credentials, which triggered an error message indicating that the username was invalid, and this result was also saved as a screenshot. These automated tests demonstrate how repetitive actions such as form entry, button clicks, and validation checks can be executed quickly without manual effort. AI tools improve test coverage by identifying UI elements more intelligently, adapting to layout changes, detecting edge cases, and reducing human error. This makes the testing process faster, more reliable, and scalable across multiple browsers and applications.