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Subject: Introduction to Software Engineering

Class: 19CLC6

Project Assignment 5 (PA5)

Test case:

- UC01_UI04
- UC01_UI05
- UC02_UI01
- UC04_UI06
- UC05_UI01

1. Why do we use test automation?

- **Save times:** By test automation, my team has to spend less time validating newly developed features.
- **Higher test coverage:** automated testing allows us to write more in-depth tests that test complex use cases.
- **Reusability of test suite:** Easily reuse this test suites for a new project.
- **Better insights:** Automated testing provides better insights than manual testing when some tests fail.
- **Improved accuracy:** automated tests can execute tests with 100-percent accuracy as they produce the same result every time we run them.
- **Quickly determine the stability:** Test automation helps us to automate tests to determine the stability quickly.
- **Eliminate human error:** For complex scenarios, test automation is very effective, it helps us avoid mistakes manual testing make mistakes.

2. When do we use test automation?

Determining whether or not automated testing depends on a lot of factors, here are some of the most important factors in my opinion.

- **Frequency of testing:** Automation testing helps us reduce repetitive and redundant testing processes.
- **Number of test cases:** The total number of test cases which are one of the most important factors, relying on we know whether we need test automation or not.
- **Number of times test cases are updated:** Test automation helps us maintain and update scripts easily. We can reuse this script for testing another features.