Project Assignment 6 (PA6)

Introduction to Software Engineering

Total score: 130 points

Time: **Tentatively, 5/01/2023**

This is a project assignment that will be submitted by each team.

Test case execution and test report (15 points)

Test cases. Execute all test cases that were designed in the previous PA. Fill in 2 remaining fields, actual result, and status (Passed / Failed).

Test report. Generate a test report listing all defects found. There is at least one defect that is linked with a failed test case.

In the **test summary report** sheet, you should include the number of functions be tested, number of test cases, number of passed test cases, and number of failed test cases of a function.

Automated testing (25 points)

For this activity, **everyone on your team** is expected to do to understand how a test automation tool works. Each team member is required to perform automated tests for at least one feature with at least two scenarios. You are required to use a test automation tool to write test scripts to execute **two test cases (two scenarios)** automatically. Each scenario should have multiple data inputs (at least five). For example, when testing the login scenario, you should provide at least two username/password pairs.

If your application is a Web-based or Mobile app, download and use Katalon Studio ([www.katalon.com)](www.katalon.com) to generate test scripts and test the scenario. (If your application is desktop-based, download and use either TestComplete or Ranorex to generate and execute test scripts.)

You can use their recording feature to capture test steps on your application. You need also modify test scripts or configure test cases so that multiple data inputs are used. For example, when testing the login feature, you should provide five pairs of usernames/passwords.

Moreover, each student is asked to use a screen recording tool to record the process of creating test scripts and running scripts. Upload the videos to Youtube (unlist mode) and write down the links in the submission

What to submit? Your team's submission includes:

1. a zipped file that contains all test projects from all team members. For each test project from each person, copy and compress the whole test project folder created by Katalon (this folder is created when you create your test project), name this zipped file with your name.

2. a text file, named ReadMe.txt that contains all Youtube video links.
3. one document by each team member to answer the following question in between 50 to 200 words: **why and when do we use test automation? (this question must be answered by each person). This document must specify who does and which test project is created.**

Project presentation (90 points)

Each team is required to present its project work in a **10-minute** presentation and up to **5 minutes** for Q&A. The main goal is to *sell* each team's work to the teaching staff and peers. With a few exceptions (permitted by the instructor), everyone is required to deliver at least a 2-minute talk as a part of the team's presentation.

The content includes:

● Problem statement, product position statement (from the Vision document), users/market.
● Project management: team structure and responsibilities of team members.
● Software requirements: use-case model, non-functional requirements.
● Analysis and design: architecture and technologies used.
● Software testing: test environments, test plan, and test results.
● Demo: demo a key scenario of the software.

As the presentation will be delivered up to **10 minutes**, you are advised to prepare about 20-25 slides.

Final submission

Each team submits the final package that contains all documents written and source code. Compress the final package into a zip file and name it as PA6-Group[GroupId]-final-report.zip.

Presentation grading Criteria

The presentation is graded using two components: content and delivery. The content criterion checks whether the presentation has all elements provided above and whether they are correct, logical, and comprehensive (e.g., whether the problem statement is clearly stated). The delivery criterion checks how well the group delivers the presentation. It is based on the organization, transition, English, clarity, and persuasiveness of the presentation.