

Assignment 2

Software Testing Course

Deadline & Submission

The deadline for submitting the assignment is Friday 03/06/2022 at 11:59 PM and the submission will be on Blackboard.

About this Assignment

1. This assignment will be solved in **teams of 2**.
2. All team members should understand all assignment problems.
3. All team members should be from the same section.

Rules:

1. Only one member of the team should submit the assignment with the following format Assignment2_ID1_ID2
2. Late submissions will be ignored.
3. Mail submissions will be ignored.

Tasks

Task 1: Control Graph Flow and Control Data Flow

For your first task you will study the code for class **DynamicList**, then you are required to deliver the following for the **add function**:

- The graph showing the execution flow of the code.
- Edge, Edge-Pair, Simple Path and Prime path coverages.
- Defs and Uses for each node.
- Du-pairs, Du-paths for each variable.
- All-defs, all-uses and all-defuse paths coverage.

Task 2: Selenium

Write an automated test case for each of the following scenarios for any web application you choose (except the one tried in the lab):

1. Test Login failure when providing wrong credentials.
2. Test Login success when providing correct credentials.
3. Test a different action which navigates to another page in case of successful login such as profile, settings, ... etc.

- **Rules:**

1. The test cases should read the input parameters for the username and password from Excel file.
2. The test cases should support Google Chrome, Firefox, and Microsoft Edge (It will be tested on the 3 browsers). Make sure you download the web driver which is compatible with your browser version.
3. **WARNING**: For testing the login failure, don't use your own username to prevent locking your account. Also, try to include the word "test" in the username so that it wouldn't lock anybody else's account too (in case the user was already available on the system).
4. **WARNING**: DON'T submit your correct credentials on Blackboard. We will test this case during the discussion time.