Group Assignment

IS 3440 – IT Quality Assurance

Deadline for submission: 3rd Jan 2025

Final presentation: 4th & 5th Jan 2025

**Automation Project Assignment Instructions**

**Objective:**

This project aims to equip students with practical experience in designing, developing, and executing comprehensive automation suites for both UI and API testing. Students will work in groups to leverage various frameworks and tools to build robust and maintainable automation solutions.

**Group Formation:**

* **Group Size:** Each group should consist of a maximum of 6 or 7 members.
* **Group Composition:** The assigned group lists are final and cannot be altered.

**Framework Assignment:**

* Each group has been assigned a specific automation framework to utilize for their project:
  + Selenium, Rest Assured, and TestNG
  + Serenity BDD
  + Playwright
  + Cypress

**Project Scope:**

* **UI and API Testing:** Each group must create an automation suite that encompasses both UI and API testing.
* **Individual Contributions:**
  + Each team member is required to develop a minimum of 5 test cases (UI, API, or a combination of both) based on their individual selection.
  + Each team member must also contribute to the creation of bug report.

**Deliverables:**

* **Project Folder:** Each group must submit a folder named with their assigned group number (e.g., "Group01"). This folder should contain:
  + **Test Suite Folder:** Containing all source code, test data, and configuration files for the automation suite.
  + **Test Case Document:** A comprehensive document outlining all test cases developed by the group. A sample document template will be provided.
  + **Defect Report:** A document detailing all identified and documented bugs. A sample report template will be provided.

**UI Testing Considerations:**

* **UI Selection:** Any suitable web application or mobile application can be chosen for UI testing.

**API Testing Considerations:**

* **API Usage:** The provided API jar file must be utilized for API testing.
* **API Documentation:** The accompanying API documentation should be used as a guide for API interactions.

**Project Tools:**

* **Cucumber (Optional):** All teams are encouraged to consider using Cucumber for implementing behavior-driven development (BDD) principles.
* **Git:** All team members must utilize a single Git repository for version control and collaborative development.
* **Build Tool:** Jenkins or a similar build tool must be used to automate the build and execution process.
* **Reporting:**
  + All teams (except those using Serenity BDD) are recommended to use the Allure reporting framework.
  + Serenity BDD teams should utilize the built-in Serenity reporting mechanism.

**Submission Deadline:**

All project deliverables must be submitted by **3rd January 2025**.

**Evaluation Criteria:**

* **Test Suite Quality:** Functionality, code quality, maintainability, and robustness of the automation suite.
* **Test Case Coverage:** Adequacy and effectiveness of the test cases in covering various scenarios.
* **Defect Reporting:** Accuracy, completeness, and clarity of the bug reports.
* **Framework Utilization:** Effective and efficient use of the assigned automation framework.
* **Tool Usage:** Proper implementation and utilization of Git, Jenkins, and the chosen reporting framework.
* **Teamwork and Collaboration:** Effective communication, coordination, and contribution from all team members.

**Academic Integrity:**

All work submitted must be original and adhere to the university's academic integrity policies. Plagiarism will not be tolerated.