NATIONAL INSTITUTE OF BUSINESS MANAGEMENT

HIGHER NATIONAL DIPLOMA IN INFORMATION SYSTEMS – 25.1F

SOFTWARE QUALITY ENGINEERING

Course Work - Group/ Take Home

Submission Date: 18.12.2025

Instructions to the students

1. This is a group assignment carrying **50% of the final marks for the module**.
2. The assignment consists of two parts
   a. The report - **40% of the marks** for answering the questions listed below
   b. Presentation and viva-voce – **60% of the marks**
3. The time allocated for each group presentation is limited to a **maximum of 10 minutes.**
4. The time allocated for the demonstration and viva-voce is limited to a **maximum of 10 minutes** for each group.
5. Grading will be done using the following criteria,

   a. Team efforts and preparation done   **(10 marks) – Team Mark**
   b. Time Management   **(10 marks)- Team Mark**
   c. Innovations in presentation   **(15 marks) - Team Mark**
   d. Content of the presentation   **(40 Marks) - Individual**
   e. Viva voce   **(25 Marks) - Individual**

Website for testing: https://demowebshop.tricentis.com/

Instructions:

1. Identify testable requirements, test conditions and write 40 test cases to execute the manual tests. (functional, usability, UI/UX and boundary/ negative testing)
2. Keep the track of the results in the Actual Result column with evidence.
3. Mark the test status as Pass or Fail in the Status column.
4. You need to add 10 test cases except for the mentioned below.
5. Choose 3-5 critical test cases which can complete with test automation.
6. Write the scripts using an automation tool. (Selenium IDE, Webdriver, cypress or playwright)
7. Keep the track of results.
8. Log defects separately to the corresponding test cases.
9. Make the decisions and suggestions according to the test results.

10. You need to produce a report including,
    a. Introduction (name, purpose, core features and scope of testing)
    b. QA & testing processes
    c. Identify the 5 to 8 testing requirements. (Ex: Navigation must work correctly.)
    d. Test case document
    e. Defect report
    f. Test coverage reports
    g. Any assumptions/suggestions

Testing Tasks

Manual Testing

- Identify **testable requirements** and **test conditions**
- Design and execute **40 manual test cases** covering:
    - Functional testing
    - Usability testing
    - UI/UX testing
    - Boundary and negative testing
- Record:
    - Actual results with **evidence (screenshots/logs)**
    - Test status (**Pass / Fail**)

Test Automation

- Select **3–5 critical test cases** suitable for automation
- Implement automation scripts using **any ONE tool**:
    - Selenium IDE
    - Selenium WebDriver
    - Cypress
    - Playwright
- Execute automated tests and:
    - Capture execution results
    - Attach screenshots/reports as evidence

Defect Management

- Log defects **separately** for failed test cases
- Each defect must include:
    - Defect ID
    - Summary
    - Steps to reproduce
    - Expected vs actual result
    - Severity and status
    - Supporting evidence
- Link defects to corresponding test cases

Decision Making

- Analyze overall test results
- Provide:
    - Release readiness decision (Go / No-Go)
    - Key risks identified
    - Practical recommendations and improvements

Submission Guidelines

- Submit a **single PDF file of the report** including proofs for each step**.**

- File naming Convention: **SQE_Coursework_GroupNo.pdf**

- Submit your presentation slides one hour prior to schedule presenting time.

- File naming Convention: **SQE_Coursework_Slides_GroupNo.pptx or .pdf**