SOEN 345: Software Testing, Verification and Quality Assurance
Winter 2026

Group Project: Cloud-based Ticket Reservation Application

PROJECT DESCRIPTION: In this course students are required to work on a software development and testing project and write a professional high-quality report.

The main objection of the application is to develop a ticket booking for events such as movies, concerts, travel, or sports. The Ticket Reservation Application allows users to browse events, reserve tickets, and receive confirmations digitally.

The programming language used in this project is Java.

INTENDED USERS

a. Customers (end users)
b. Event organizers / administrators

FUNCTIONAL REQUIREMENTS

Users should be able to:

a. register using email or phone number
b. view a list of available events
c. search and filter events by date, location, or category
d. cancel reservations
e. receive confirmations via email or SMS

Administrators should be able to:

a. add new event
b. edit an existing event
c. cancel an event

NON-FUNCTIONAL REQUIREMENTS

a. The system should support concurrent users without performance degradation
b. The system should be cloud based that ensures high availability
c. The UI should be simple and user-friendly

PROJECT REPORT: You are required to write a report that includes the following:

Software development method

Clearly identify the Software development Method adopted by the team. Example Scrum, Extreme Programming (XP), Lean Software Development etc. Write details about the software development lifecycle.

Software Testing method

Describe the software testing methods and results for:

- Unit and component tests
- Functional and acceptance tests

PROJECT DEVELOPMENT TOOLS: In this project you must use tool as follows:

- Continuous Integration & Continuous Delivery (CI/CD) Tools such as GitHub Actions
- Version Control Tools such as GitHub
- Testing Tools such as Junit 5 or Junit 6
- An Integrated Development Environment (IDE) such as Android Studio

TEAM STRUCTURE: The team project could be formed of up to five members, all members must contribute equally to the project. Please pay attention to the plagiarism rules while working on the project development and writing the report. The rules can be viewed from:

https://www.concordia.ca/conduct/academic-integrity/plagiarism.html

DUE DATES:

Deliverable	Due date
Progress reports	Every two weeks submitted on Moodle
Project presentation and report submission	April 7th

PROJECT ASSESSMENT RUBRIC:

Will be posted on Moodle