GINA CODY SCHOOL OF ENGINEERING AND COMPUTER SCIENCE

SOEN 341 Software Process

Team Project, Fall 2024

Project Title: A Peer Assessment Application

Objective.

This project will help you get a taste of software development skills firsthand. You will follow the Agile development approach; take advantage of GitHub distributed version control plus access control, bug tracking, software feature requests, task management, continuous integration, and wikis to support your project management process. The project is divided into 4 incremental deliveries which we refer to as sprints based on Agile Scrum methodology, which will be used in this course.

The duration of the project is around 10 weeks; the development process is an adapted Agile with 3 to 4 weeks long iterations, 4 iterations in total. The first 2 weeks of the first sprint are for training and setting up your development environment.

Because of the short span of this project, you are not expected to deliver a marketable product, but the result should be at least a compelling middle-fidelity prototype that could serve as the basis for building a real product. Check these two links on prototype fidelity quite helpful: A Guide to Prototype Fidelity:

- https://www.webfx.com/blog/web-design/design-mockup-fidelity/
- https://www.webfx.com/blog/web-design/wireframes-vs-prototypes-difference/

Description

A Peer Assessment System for university team projects is designed to allow students to evaluate the contributions and performance of their teammates based on four key dimensions: cooperation, conceptual contribution, practical contribution, and work ethic. The system promotes accountability and provides valuable feedback to both students and instructors on team dynamics and individual efforts.

We identify two primary users: Students and Instructors.

System Features:

1. **Students assessment**:

- Students log into the system and are prompted to evaluate each of their teammates at the end of a project or key milestones.
- Evaluation is conducted anonymously to encourage honest and constructive feedback.
- Students rate their peers on a 7-point scale for each of the four dimensions, along with optional comment sections for detailed feedback.

Assessment Dimensions:

- **Cooperation**: Actively participating in meetings; Communicating within the group; Cooperating within the group; Assisting team-mates when needed; Volunteering for tasks.
- **Conceptual Contribution**: Researching and gathering information; Quality of individual contribution; Suggesting ideas; Tying ideas together; Identifying difficulties; Identifying effective approaches.
- **Practical Contribution**: Writing of the report(s); Reviewing others' report(s) or section(s); Providing constructive feedback on the report(s) or the presentation; Contributing to the organization of the work; Contributing to the preparation of presentation(s) (if appropriate).
- **Work Ethic**: Displaying a positive attitude; Respecting team-mates; Respecting commitments; Respecting deadlines; Respecting team-mates' ideas.

2. **Automated Score Sharing and Anonymous Peer Feedback**

- After submission, individual scores are aggregated, and the instructor receives an overall assessment of each student's performance.
- Peer feedback is also shared with the students anonymously, helping them improve their performance in future projects

3. **Instructor Dashboard**:

- Instructors have access to a dashboard that allows them to create teams, and at the end of an evaluation to show detailed peer assessment results by team, by student, and a summary of results. The results can be exported for further use as CSV file.

This is not an exhaustive list of features/users for a system of this type. Other kinds of users and features could be considered. Your project grade criteria consider originality and innovation. The highest marks will be given to teams that are thinking outside the box and include other relevant users and functionalities for eventual implementation when properly justified.

As an example, take a look at the Concordia's JMBS Peer assessment system

For the first sprint, you have to consider the following core features:

User Authentication & Team Management:

- ☐ Implement Student and Instructor login system (with roles).
- ☐ Functionality for instructors to create teams and assign students to specific groups. (For example, importing a course roaster from a CSV file)
- ☐ Ensure teams are visible to both students and instructors.

Sprint 1 delivery instructions.

Create a GitHub repository named `<team_name-SOEN341_Project_F24>` and organize all project deliverables in subfolders for each sprint. For example, a folder for the minutes.

You also must submit one page to Moodle per team, including your team name, team members with IDs, and a link to your repository. The rest of the work is stored and evaluated directly in your GitHub repository.

The table below provides details on the activities and the corresponding deliverables that must be present in your repository. A detailed grading rubric can be accessed here. This will be used by the markers.

Activities	Sprint Details

1. GitHub setup and initialization
2. README file
3. Sprint Plan
4. User stories and Task breakdown
5. Code to demo
	• README file with
	  ○ Description of the Project
	  ○ Team Members and Roles
	• The Sprint planning (see Appendix A).
	• User stories for Sprint 1 (Use GitHub issues). Identifying them with the prefix US.##
	• Task Breakdown (derived from user stories, and assigned to at least one team member). Use GitHub issues, with the prefix Task.##
	• Detailed log of each team member's contribution including time spent on each activity (document)
	• Meetings Minutes file (minutes files must be named <teamName_Sprint#_meetingnumber_meeting_date>
	• You need to demo at least one functionality from “User Authentication & Team Management” for example login functionality.

You must have regular meetings with your team and post their “minutes” in the corresponding subfolder in your repository.

At the end of each sprint, each team member will submit a detailed log of their activities, which will be considered to evaluate the individual contribution.

All members of the team should contribute equally to the project and all contributions must be traceable on GitHub. For informal communication among the team members, you may use the private forum in Moodle.

Total weight 3%.

Appendix A. Sprint Plan.

Create a table with the following columns:

- Issue # from your repository.
- User story/Task title.
- Story points associated with a User story (US)/task.
- Due date.
- Associated tasks/Task description.
- Priority (low, medium, high) based on your discussion with your TA.
- Risk (low, medium, high) and a brief explanation.
- Responsible. The team member who is accountable for the task.

As an example, consider the project from a previous term.

https://docs.google.com/spreadsheets/d/1XJVPkzoddaY0HJMaGUNn_-xZByVyE6RBzXC0nnBDX_g/edit?usp=sharing

https://docs.google.com/spreadsheets/d/1LNb9UJPpciZ9EqzjkkmBA0BT8gKLtKMuAKInAM_gUqQ/edit?usp=sharing

Remember that this table is the result of your team meetings, and the discussions with the TA, and/or instructor. All decisions must be documented in the minutes of your meetings, for example, how you estimate story points for each task.