

SOEN 6841

Software Engineering Team Project (50%)

Winter 2023

This project will help you to get a taste of software project management skills first-hand. You will follow the Agile development approach; use supporting project management tools of your choice for tracking progress against the plan, and communicate about the progress (Jira, Asana, etc.). 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 defining a real product. Check these two links on prototypes 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/>

The duration of the project is 8 weeks (each student works in average 10h per week on this project); the development process is an adapted Agile with 2-weeks long iterations, 3 iterations in total. The first 2 weeks of the first sprint is for training and setting up your development environment.

At the end of each iteration and/or before the new iteration starts (on Thursdays March 9th, March 23rd & April 6th) there are demo sessions; the teams will use these sessions to:

- 1) Run the prototyped functionalities
- 2) Clarify the user stories to be developed in the next iteration (mockups can be used for this purpose).

Final Deliverables due on April 12th by midnight and final presentation to the whole class is on 13th of April

Please create a folder named <team_name-soen6841project2023> with ALL team's deliverables in this project (organized by subfolders: Sprint 1, Sprint 2, Sprint 3). Please zip the folder, upload Moodle.

Detailed project schedule and evaluation criteria are provided below. The project description is provided from page 6.

Schedule and Evaluation

Iterations	Team Evaluation criteria *	Weight
Project kick-off: Feb 9	Project Kickoff Documentation: <ul style="list-style-type: none"> High-level project definition Introduction of team members and roles Project approach and technologies User stories backlog Project scope Out of scope Sprint 1, 2 and 3 initial planning (user stories backlog and tasks) driven by “customer value” Risks, cautions, and disclaimers Timeline Budget and budget reporting 	10%
	(10%) Project Kickoff report is due on Feb 9th. please state clearly the name of the team members on the report. Only one team member will submit the report on Moodle.	
Sprint 1: Feb 9 – March 9	Evaluation criteria*: <ul style="list-style-type: none"> Agile project management skills Acceptance testing Oral communication skills [presentations] Customer satisfaction UI evaluation and User Centered Design 	10%
	Sprint 1 deliverables: <ol style="list-style-type: none"> user stories backlog Acceptance Test Cases for the functionality developed in this sprint Risk management for the functionality developed in this sprint. Measurement data on success indicators. Iteration and release burndown charts 	
	March 9: Demos of the delivered functionality (UIs). Acceptance testing of the functionality developed in this sprint. Sprint 2 planning. Report on all Sprint 1 deliverables and demo results is due on March 9 .	
Sprint 2 March 9– March 23	Evaluation criteria*: <ul style="list-style-type: none"> Agile project management skills Acceptance testing Oral communication skills [presentations] Customer satisfaction UI evaluation and User Centered Design 	10%
	Sprint 2 deliverables: <ol style="list-style-type: none"> user stories backlog 	

	<ol style="list-style-type: none"> Iteration and release burndown charts UATs for the functionality developed in this sprint. Testing results (Demo 2) Risk management for the functionality developed in this sprint (highlight updates in the RMP, if any) Sprint 2 retrospective analysis, what are your findings in Sprint-2 and what are the changes for Sprint-3 Measurement data on success indicators (compare Sprint 1 and Sprint 2 results – is there any increase or decrease? What lessons can be learnt from the analysis of the results?) 	
	<p>March 23: Demos of the delivered functionality (UIs). UAT of the functionality developed in this sprint. Evaluation of customer satisfaction. Sprint 3 planning driven by customer value. Report on all Sprint 2 deliverables and demo results is due on March 23.</p>	
<p>Sprint 3 March 23 – April 6</p>	<p>Evaluation criteria*:</p> <ul style="list-style-type: none"> Agile project management skills Acceptance testing Oral communication skills [presentations] Customer satisfaction UI evaluation and User Centered Design <p>Sprint 2 deliverables:</p> <ol style="list-style-type: none"> user stories backlog Iteration and release burndown charts UATs for the functionality developed in this sprint. Testing results (Demo 3) Risk management for the functionality developed in this sprint (highlight updates in the RMP, if any) Evaluation of customer satisfaction (compare Sprint 1, 2 and 3 results – is there any increase or decrease? What lessons can be learnt from the analysis of the results?) Measurement data on success indicators (compare Sprint 1, 2 and 3 results – is there any increase or decrease? What lessons can be learnt from the analysis of the results?) <p>April 6: Demos of the delivered functionality (UIs). UAT of the functionality developed in this sprint. Evaluation of customer satisfaction. FINAL DELIVERABLES due April 12th. Retrospective report and a folder with ALL team's deliverables in this project (organized by Kickoff, Sprint 1, Sprint 2 and Sprint 3) are due on April 12th by midnight. Please find more detailed submission instructions on Page 1 of this document.</p>	10%
<p>Final Presentation April 13</p>	<p>Final presentation for the entire class. Peer evaluation of the other teams via Moodle, link will be posted. Every team member: please submit a confidential Peer Evaluation Form for the project via Moodle, link will be posted.</p>	10%

*** Evaluation criteria:**

1. User stories backlog

- Prioritize user stories according to their business value, risk assessment, size in story points

2. Project management: Proficiency in planning skills

- Agility of planning and management
- First / second and third sprint planning driven by customer value
- Managing Sprint Backlog Item (SPI) tasks
- Managing SPI acceptance tests. For each sprint, report the results of testing. For each UAT, keep record of the timestamp, the result (Pass/Fail).

3. Customer satisfaction evaluation is based on the following criteria:

- How satisfied are you with the reliability of this iteration?
- How satisfied are you with the iteration's capabilities? That is, does it meet your needs in terms of features and functionality?
- How satisfied are you with communication with the development team?
- What is your overall satisfaction with the iteration?

4. UI evaluation is based on the following criteria:

1. Overall site architecture: Evaluate the overall organisation of the different screens:

- Are the options the application offers quickly evident?
- Starting at the home screen, can users get an overview of what options the application offers? Or do they have to try each one to figure out what they can do?
- Are the different pages/sections coherent with respect to each other?

2. Navigation

- Are the options visible? Unambiguously labelled?
- Is the application easy for users to navigate around?
- Where am I? Where should I go? How do I get out?

3. Feedback

- Do users receive adequate feedback?
- Do they know when they have successfully completed a task?
- Can they recover from errors?

4. Screen layout

- Is the space used effectively?
- Are options conveniently located?

5. User Centered Design

Students will be expected to briefly discuss the following points:

1. User characteristics

- Who will use the application? age, gender, socio-economic background (education, income, culture), familiarity with the task, the terminology, technology, etc.

- Describe a typical user (persona)
2. **Set of tasks performed**
 - For what will they use the application? What are the users' goals, what tasks will they perform, why, when, how frequently, what do they need to do the tasks, etc.
 - Describe the typical tasks they will perform (narrative scenario)
 3. **Context of use**
 - What are the environmental and social constraints? Where are they, what is their state of mind (emergency, in a rush, distracted, relaxed), can they be overheard or seen, what other software systems do they use, etc.
 - Describe the typical context in which they will use the application
 4. **Stakeholder objectives**
 - What objectives and constraints do students have to deal with?
6. **Oral communication skills evaluation is based on the following criteria:**
 - Demonstrate the ability to communicate in a professional manner.
 - Clarity of presentations: Provide sufficient Information. Effective use of time. Clarity of the answers to the questions

SOEN6841 Winter 2023 Project

Project Title: Collecting data for patients with depression

The objective of this project is to provide an app or a website to help patients, counselors and doctors to have access faster to the medical system. In this system, patients are able to register and perform a self-assessment test in order to get help from a doctor or a counselor. After registering and performing the self-assessment test, these data will be communicated to a counselor for consultation. A counselor will determine to consult more with the patient by giving him/her appointment, or assign the patient to a doctor, or not accepting the patient because the symptoms are not serious. After assigning a patient to a doctor, doctor can go over the patient's information including the self-assessment test and provide an appointment to the patient. If there is no need to see the patient, the doctor can reject the patient. In either case, the patient will be notified. All the data will be stored in a database in order to provide different type of reports for the management.

The following are the capabilities of each user:

Patient:

1. Registration (Full name, address, date of birth, address, phone number, email address)
2. Self-assessment, see the link down
3. Cancel the assessment
4. See the appointment with a counselor or a doctor
5. Accept or Cancel the appointment

Counselor:

1. Registration (Full name, address, date of birth, address, phone number, email address, counselor registration number)
2. List of patients
3. Self-assessment results
4. Appointments with patients
5. Assigning a patient to a Dr
6. Rejecting a patient

Doctor:

1. Registration (Full name, address, date of birth, address, phone number, email address, doctor registration number)

2. List of his/her patients
3. Self-assessment results for the assigned patients
4. Appointments with Patients
5. Modifying the appointments
6. Rejecting a patient

Manager:

1. Accept or reject a doctor
2. Accept or reject a counselor
3. Add or remove a patient
4. Report: number of patients (day, week, month)

[Self-assessment test](#) can be used for this project. It has 9 different questions. How the patients can see the questions is up to you, one questions at a time, or all 9 questions.