

COSC 4P02 Software Engineering 2

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Museums Assistance Application Project Proposal

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Members and Roles

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Introduction

Since 1907, the Niagara-on-the-Lake museum has been opened to preserve and promote Niagara-on-the-Lake's history, artifacts and heritage. The museum is now made up of three buildings merged together and hosts both permanent and temporary exhibitions. In addition to the information available on their website (<https://www.notlmuseum.ca/>), we want to make the museum more accessible to newcomers.

Objective

Goal

We want to help museum visitors find their way in the museum by providing them with an interactive map. The map should help them find their way between points of interest (artifacts, bathrooms, emergency exits, etc.) and provide basic information about the artifacts before the user physically makes their way to it. On top of this, the map should be editable by staff members if the items were to change throughout the year (e.g., in the case of temporary exhibits).

Importance

Not everyone visiting the museum is a frequent goer of that museum or museums in general. Although exploration is part of the fun of museums, some guests may be on a tight schedule and may want to find an efficient path between their artifacts of interest. We propose the creation of the Museum Assistance Application (MAA) to help users navigate their way around the museum. This also allows visitors to walk around by themselves without a guide by using the software which also provides basic information about each artifact on display. Overall, the MAA should give users the freedom to explore but also aid them on their journey throughout the museum.

Challenges

The biggest challenges for our application are providing an intuitive interface that the user (visitor or staff) can pick up and use without much hassle, ensuring a good level of responsiveness and making it accessible over multiple types of devices.

Overall Description

We aim to create an interactive map which includes information about the museum that helps the visitors navigate their way around it. This includes artifact locations and descriptions, the museum's layout, and points of interest which the users can use as a guide for their visit throughout the museum. It should also be equally as easy for the museum staff to edit the map to fit their current exhibits to ensure the map stays up to date and serves its purpose for the visitors.

Software Engineering Process

Our team has decided to follow the Scrum process with weekly Scrums every Tuesday at 2:30pm. We plan to meet at the lecture hall (WH324) at that time or on the Thursday of that week at the same time if the Tuesday slot is occupied by a lecture. Some weekend temporary online or in person meetings over several developers would be made if it is necessary.

We chose to follow the Scrum procedure as it allows us to be flexible with our work schedule to meet our school schedules whilst providing enough check-ins to make sure we are staying on track. Given the unpredictable workload of other classes, it is optimal for us to have mostly bi-weekly reviews and retrospectives to determine our velocity to maintain a

sustainable development speed and account for external factors that may hinder our group members' performance.

Github Page - <https://github.com/tx13al/COSC4P02D32023Winter.git>

This GitHub repository should control the different versions of our app, store all documents (including reports, scrum and sprint meetings and more) and all other related files.

Timetable

Time	Weekly Agenda	Due Date
week 1 (Jan 9)	Meet & Discuss (Jan 12) <ul style="list-style-type: none"> - Project Selection (Museum) - Application Decision (Interactive Map) - Methodology Selection (Scrum) - Follow up Meeting Planning Tentative - Creation of proposal document (this document) Extra meeting (Jan 14) to discuss interactive map ideas	
week 2 (Jan 16) <i>Start Sprint 1</i>	Scrum meeting on Jan 17 to finalize discussions from the last week. Project planning <ul style="list-style-type: none"> - Outline requirements and place them into a backlog (write user stories) - Start researching about the technologies required to complete backlog items 	Proposal (Jan 17, this document)
week 3 (Jan 23) <i>Sprint 1</i>	Scrum Meeting <ul style="list-style-type: none"> - Discuss technologies found from research and finalize them Begin writing requirements document (organising backlog into sprints) <ul style="list-style-type: none"> - Create diagrams for main components 	
week 4 (Jan 30) <i>Start Sprint 2</i>	Scrum meeting Sprint review (not much to present besides backlog) but mainly retrospective (see how our teamwork and coordination is going so far).	Requirement Document (Jan 31)
week 5 (Feb 6) <i>Sprint 2</i>	Scrum Meeting	
week 6 (Feb 13)	Scrum Meeting End of sprint (retrospective, review and preplanning)	

<i>Start Sprint 3</i>	for next sprint) - gives us time to start writing the first report	
week 7 (Feb 20) <i>Sprint 3</i>	Scrum Meeting	
week 8 (Feb 27) <i>Start Sprint 4</i>	Scrum Meeting End of sprint (retrospective, review and preplanning for next sprint) - the contents of this meeting most likely won't make it onto the first report. This is mainly serving as a progress check. Potential first release?	First Progress Report and Review Meeting (Feb 28)
week 9 (Mar 6) <i>Sprint 4</i>	Scrum Meeting	
week 10 (Mar 13) <i>Start Sprint 5</i>	Scrum Meeting End of sprint (retrospective, review and preplanning for next sprint) - gives us time to start writing the second report	
week 11 (Mar 20) <i>Sprint 5</i>	Scrum Meeting	
week 12 (Mar 27) <i>Start Sprint 6</i>	Scrum Meeting End of sprint (retrospective, review and preplanning for next sprint) - the contents of this meeting most likely won't make it onto the first report. This is mainly serving as a progress check. Potential second release?	Second Progress Report and Review Meeting (March 28)
week 13 (Apr 3) <i>Sprint 6</i>	Scrum Meeting	
week 14 (Apr 10)	Scrum Meeting End of sprint (retrospective, review and preplanning	

<i>Start Sprint 7</i>	for next sprint) - gives us time to start writing the last report - Go over feedback from other groups and integrate that into our final product	
week 15 (Apr 17) <i>Sprint 7</i>	Scrum Meeting Start Doing Final Demonstration/Presentation/Report	
Week 16 (Apr 24 -28) <i>Sprint 7?</i>	Scrum Meeting End of sprint (retrospective, review and preplanning for next sprint) - wrap up project and add any important details to the report Final release	Final Demonstration / Presentation / Report (April 28th)

* Dates are not final. May change based on assigned presentation dates.