

Project Proposal

COSC 4P02
Software Engineering II
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Brock University

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Problem

Museum visitors often struggle to navigate through certain museum exhibits, and can be uncertain of the chronological order of important historical events. Visitors can often miss important information and valuable context about the exhibits. Not only is this a problem for the impact of the museum, but for the historical and cultural understanding of the visitors as well. Ultimately, the museum experience can be lacking for some, and thus an enhancement to the overall system can also greatly enhance each patron's satisfaction.

Objective

Our objective is to create an Interactive Timeline System Web Application using JavaScript/HTML/CSS for museum exhibits and historical events. Our software solution can convey information about an exhibit or an event in a way that visitors can understand with ease. As it is a timeline, the information will be organized in chronological order, giving the visitors the insight as to which time periods the exhibits are from, as well as important historical context. This will provide a useful and intuitive interface for the visitors and will add value to their museum experience.

This has the added benefit of the interactive timeline being accessible to online visitors in addition to visitors within the museum. This can increase the audience to those who would otherwise not have been able to access the museum, and those who are not able to visit in person.

Importance

The importance of this project is that it will benefit both the museum and its visitors by providing ease of access to the museum's exhibits, allowing for greater accessibility for the audience and ultimately increasing engagement for the museum's exhibits. This web application can also be used for generating interest for the museum, as digital displays of its exhibits can entice people to visit the museum in person. Furthermore, the web application would allow people located anywhere to view the museum's exhibits, thus allowing the museum to reach out to a much larger audience and not have to rely on its local visitors.

Software Engineering Process

Based on the project idea we have selected, we will be using the **Agile-Scrum** software engineering process. This will allow us to divide the development process into smaller sections (sprints) with the goal of developing the software in digestible increments. At the beginning of each sprint, we will break down and assign user stories to each developer, and in the interim of each sprint, we will have frequent meetings to assess the progress and identify issues. Once the sprint is complete, our team will conduct a sprint retrospective and identify what we succeeded on and what needs improvement for the next sprint.

We find that this software engineering methodology is ideal for this project as it allows for flexibility during development while also taking into consideration the requirements of the stakeholders. The use of sprint cycles also allows for efficient collaboration between team members, as it enables our developers to focus on different aspects of the software simultaneously and thus avoid conflicts while merging.

Team Structure

Team Member	Role
Alec Ames	Leader / Developer
Matthew Benson	Developer
Ibrahim Hashmi	Developer
Francis Monwe	Developer
Tommy Pham	Developer
Abhijeet Prajapati	Developer
Justin Stickel	Scrum Master / Developer
Haaris Yahya	Developer

* Product Owner role is split among all members.

GitHub Repository

All project related code, assets, and documents are publically available at the following GitHub repository:

 <https://github.com/SWE-2023/COSC-4P02-Project>

Timeline

The following is an approximate allocation of time for each software development task throughout the course:

Dates	Task
Jan 9 - Jan 17	Create Project Proposal – due Jan 17
Jan 18 - Jan 24	Generate user stories and start Product Backlog and Sprint Backlog
Jan 25 - Jan 31	Finalize Product Backlog and Sprint Backlog – due Jan 31 ; Planning for Sprint 1
Feb 1 - Feb 14	Begin Sprint 1

Dates	Task
Feb 15 - Feb 28	Sprint 1 retrospective meeting Begin Sprint 2 Create Progress Report I - due Feb 28
Mar 1 - Mar 14	Sprint 2 retrospective meeting Product testing Begin Sprint 3
Mar 15 - Mar 28	Sprint 3 retrospective meeting Product testing Begin Sprint 4 Create Progress Report II due Mar 28
Mar 29 - Apr 11	Sprint 4 retrospective meeting Final product testing
Apr 12 - Apr 16	Product deployment
Apr 17 - Apr 28	Finalize Report and product Presentation - due Apr 17 - Apr 28 Product demonstration

Recurring Meetings

- Bi-Weekly Sprints with Sprint planning and review meetings
- Progress meetings alternating **every Friday** at 8:00pm