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ENSE 374 – Software Engineering Management

Hiking Trails Web Application

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- Proofread the text for typing and grammar mistakes.
- Follow the IEEE Bibliography style for the references by selecting "References/ Citations & Bibliography/ Style".

List of Figures

List of Tables

1 Introduction

- Give a brief description of the design and a summary of the relevant background information related to the topic. Give a rationale about what is needed and why.
- Specify the project requirements provided by the stakeholders in the context of your project topic. Provide link to ‘Project Requirements Document’
- Give the reader an overview of what is in the next sections.
- Do not put any detailed results of your work here.

Our web design is on hiking trails as people who enjoy nature, enjoy walking through trails and breathing some fresh air. During the time of covid, everyone was in lockdown in their homes. People had to wear masks for about 3 years with some still wearing them till this day. Ever since the lockdown, the amount of participation in outdoor recreation such as hiking has increased significantly with 40% of Canadians increasing their trail usage since 2020 (reference). What our design will show are numerous hiking trails throughout Saskatchewan, with each hiking trail having their own ratings and reviews based on customer experience.The application will allow users to enter filters when searching for a specific type of hiking trail they want to go on. These filters could include the distance of the trail from their home, the distance it will take to complete the trail, the trail with nearest benches and bathrooms, and etc. Programming such a web application will need the use of html, css, and javascript.

2 Design Problem

This section has the following two subsections:

2.1 Problem Definition

Provide a link to the ‘Business Case.’

https://docs.google.com/document/d/1_wQzQmq9v0bf-f5dSTJxcXj_ggGz0rq2/edit

2.2 Project Charter

Provide link to ‘Project Charter’ document.

https://docs.google.com/document/d/1TXGeizDpbyH8ZJhHkdN9UsVgNzJdeVG5/edit

3 Solution

In this section, you will provide an account of some solutions your team brainstormed to implement the project. Some solutions might not have all the desired features, some might not satisfy the constraints, or both. These solutions come up in your mind while you brainstorm ways of implementing all the features while meeting the constraints. Towards the end you select a solution that you think has all the features and satisfies all the constraints. Remember that an engineering design is iterative in nature!

3.1 Solution 1

Write a brief description of your first solution and provide the reasons for not selecting this one.

Our first solution was

3.2 Solution 2

This is an improved solution but might not be the final solution that you select. Give a brief description of this solution here.

3.3 Final Solution

This is the final solution. Explain why it is better than other solutions. You may use a table for comparison purposes. After providing the reason for selecting this solution, detail it below.

Comparisons:	**Solution 1**	**Solution 2:**	**Final Solution:**

Costs			
Benefits			

Option 1: Proceed with SK Trails

This option entails developing and releasing the SK Trails online program, which unifies trail data from all throughout Saskatchewan onto a single platform. Users will be able to peruse based on a variety of criteria, including user reviews, elevation, difficulty, and duration.

3.3.1 Components

What components did you use in the solution? What is the main purpose of using individual components? Provide a block diagram (with a numbered caption, such as Fig. 1) representing the connectivity and interaction between all the components.

3.3.2 Features

Give an account of all the features your solution has. These features may be tabulated (with a title) for improved comprehension.

3.3.3 Environmental, Societal, Safety, and Economic Considerations

Explain how your engineering design took into account environmental, societal, economic and other constraints into consideration. It may include how your design has positive contributions to the environment and society? What type of economic decisions you made? How did you make sure that the design is reliable and safe to use?

3.3.4 Limitations

Every product has some limitations, and so is the case with your design product. Highlight some of the limitations of your solution here.

4 Team Work

Since this is a group project, you must have a fair distribution of tasks among yourselves. To this end, you must hold meetings to discuss the distribution of tasks and to keep a track of the project progress.

4.1 Meeting 1

Provide Links to ‘Meeting Agenda, Meeting Minutes, Change Request, Project Status Report, Issue Log’ documents.

4.2 Meeting 2

Provide Links to ‘Meeting Agenda, Meeting Minutes, Change Request, Project Status Report, Issue Log’ documents.

4.3 Meeting 3

Provide a similar description here.

4.4 Meeting n

Provide a similar description here.

5 Project Management

Provide the link to ‘Milestone-based Schedule’ document. Use Gantt chart as well to show the progress of your work here. Mention all the tasks along with their predecessors. Provide the slack time of each task and identify the critical path.

6 Conclusion and Future Work

- A summary of what you achieved.
- Provide Link to ‘Lessons Learned Report’ document.
- While keeping the limitations of your solution, provide recommendations for future design improvements.

7 References

- Use the IEEE reference style.
- Do not put any reference if it is not cited in the text.

https://tctrail.ca/news/national-leger-survey-finds-trail-use-has-increased-40-in-2021/

8 Appendix

If you want to provide an additional information, use this appendix.