SK Trails

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Week 12 November 26, 2024

Software Engineering Management (ENSE 374)



Go far, together.

Agenda

- Introduction
- Problem Definition
- Design Requirements
- Solutions (1st, 2nd and final solution)
- Project Management
- Conclusion and Future Work

Kizaru on his way to maintain admirals' agenda





Introduction

Background Information

The project aims to design a website showcasing Saskatchewan's hiking trails, addressing the surge in outdoor leisure interest after the COVID-19 pandemic. Saskatchewan's diverse trails and scenic landscapes make it an ideal focus, meeting the growing demand for accessible and reliable trail information.

Rationale

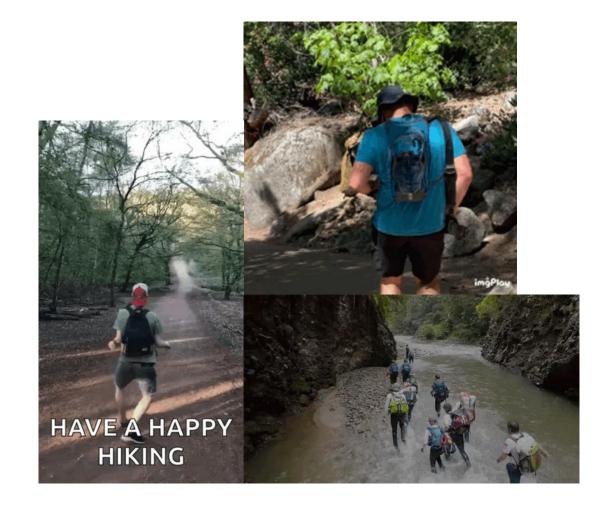
This website fulfills the need for a user-friendly platform offering detailed trail information, including evaluations, ratings, and user experiences. Features like filters for time, distance, and nearby amenities help users find trails that suit their preferences. Current platforms lack a localized and intuitive design tailored to Saskatchewan's hiking community.

Using **HTML**, **CSS**, **JavaScript**, and **MongoDB** the site will deliver a responsive, interactive design that caters to desktop and mobile users, enhancing usability and enriching hiking experiences.



Problem Definition

- No centralized platform for hiking trails in Saskatchewan
- Difficulty matching trails to preferences and skill levels
- Limited access to reliable trail information
- Uninformed choices due to lack of trail details
- Inadequate information sharing
- Need to improve the hiking experience
- Promote healthier lifestyles



Design Requirements

Goals

• The SK Trails project aims to create an intuitive platform for hikers in Saskatchewan to find suitable trails based on their skill levels and preferences. It provides detailed information about trails, enhancing user engagement and promoting outdoor activity, environmental awareness, and healthier lifestyles.

Objectives

- O Develop a user-friendly interface which will allow users to browse and filter hiking trails of their choice by region, duration, length, terrain, difficulty and user ratings
- Complete project planning documentation by the deadlines
- Design the MVP using a programming environment combination of HTML, CSS/Bootstrap, JavaScript, NoSQL, Node.js, etc

DESIGN CONSTRAINTS

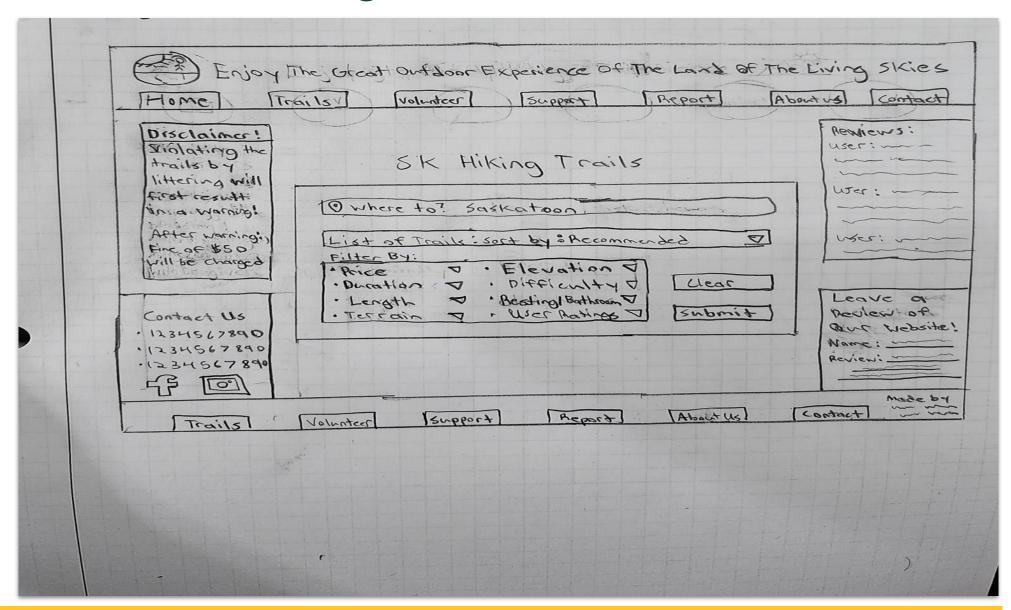
Problem 1: Economic Factors

Problem 2: Sustainability and Environmental Factors

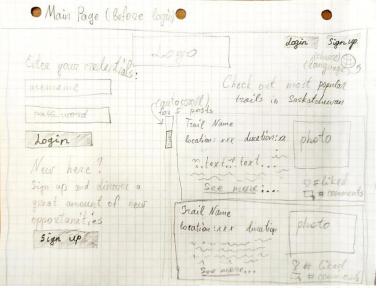
Problem 4: Regulatory Compliance (Security and Access)

Problem 5: Reliability

Solutions: Design 1



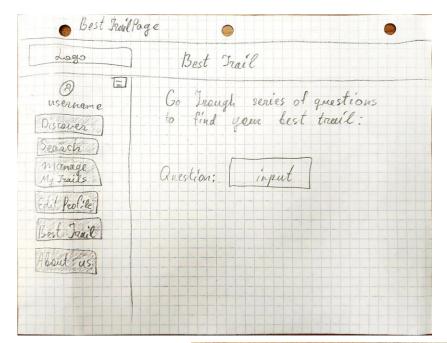
Solutions: Design 2



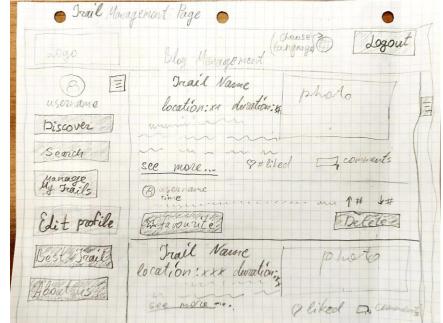
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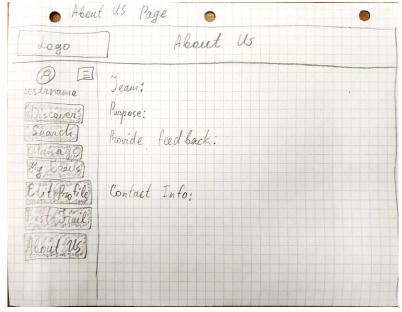
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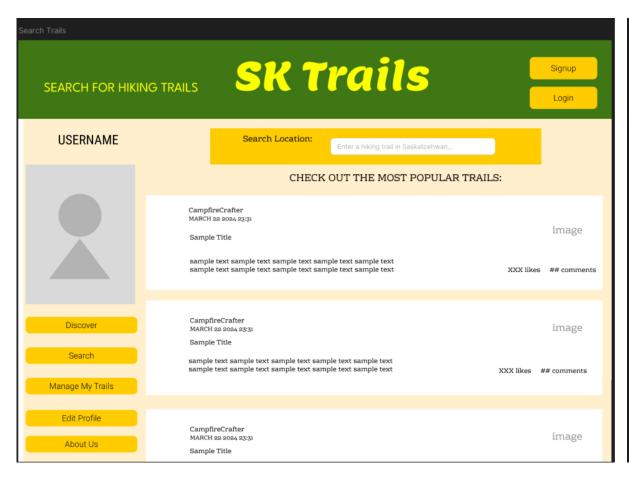




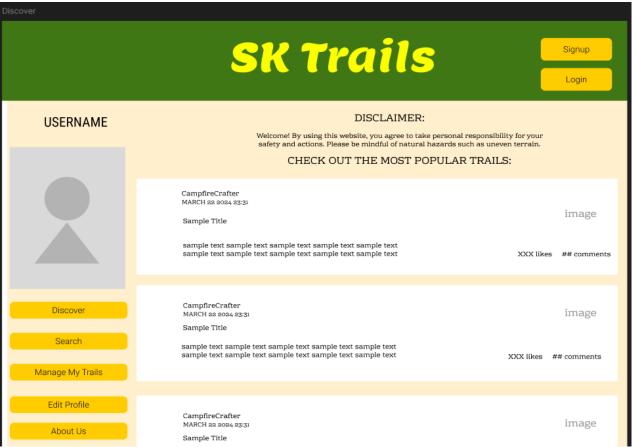




Solutions: Final Design



Discover trails



Search Trail by Name



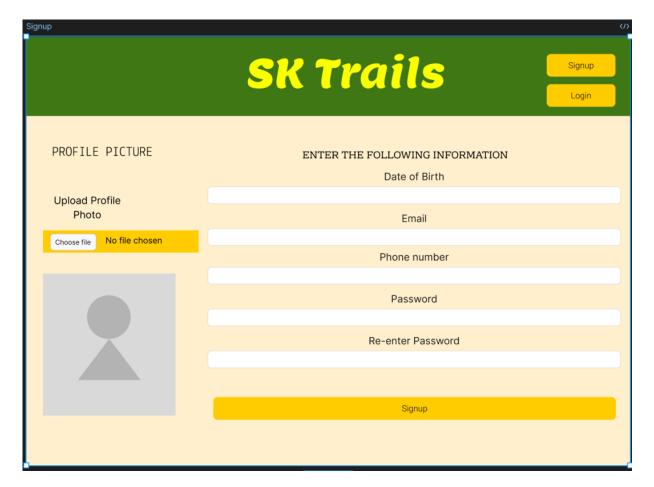
About us page

About Us

SK Trails Logout About us page **USERNAME** About Us: Our Story: Sample textSample text 3 sample texts: -Sample text -Sample text -Sample text Sample textSample text Discover Search Sample textSample textSample text Manage My Trails Provide Feedback Edit Profile

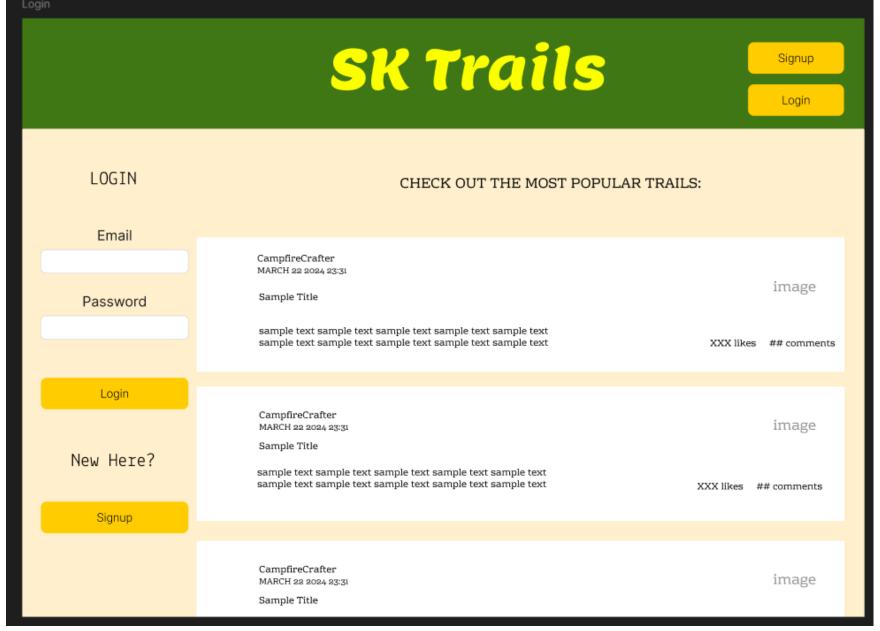
Submit Feedback

Signup page





Login page

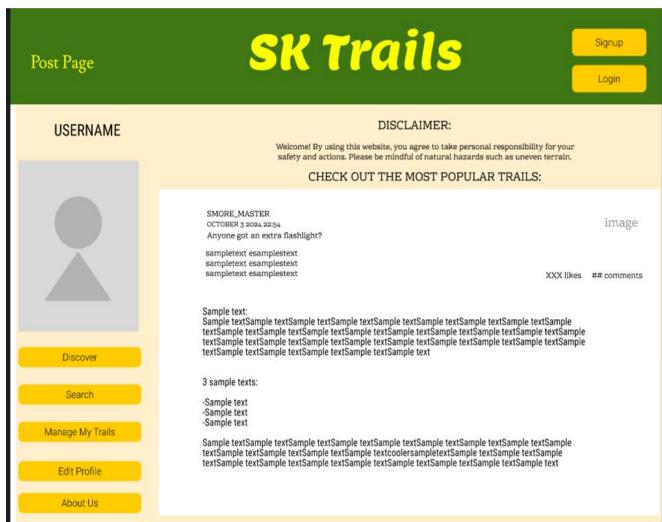




Post management page

SK Trails Signup Login **USERNAME** CHECK OUT THE MOST POPULAR TRAILS: CampfireCrafter MARCH 22 2024 23:31 image Sample Title sample text XXX likes ## comments CampfireCrafter Discover image MARCH 22 2024 23:3 Search sample text XXX likes ## comments Manage My Trails Edit Profile CampfireCrafter MARCH 22 2024 23:31 image About Us Sample Title

Post page





Solution Comparison Chart

Solution 1

Navigation Bar: Quick access to important sections such as Home, Trails, Volunteer, Support, etc.

Disclaimer Section: Promotes environmental responsibility by informing users about trail littering and potential fines.

Search and Filter Options: Users can search and filter trails by various factors like Price, Duration, Length, Terrain, Difficulty, etc.

Review Section: Encourages user interaction by allowing them to read and leave reviews about trails.

Contact Information and Social Media Links: Provides easy access to connect with the team and stay informed through social media.

Footer Links: Repeats navigation links for improved usability.

User Benefits: Emphasizes the use of detailed search filters and user feedback to improve the hiking experience.

Solution 2

Login/Sign-Up Pages: Users have the option to log in or sign up to customize their experience, with a sneak peek of popular trails to attract new users.

Trail Feed and Community Interaction: Users can view trails with likes and comments, offering community insights before heading out.

Advanced Search and Filters: Narrow down trails by location, elevation, terrain, etc., with a personalized quiz to suggest the ideal trail.

Trail Detail Page: Provides comprehensive information on each trail, including comments, likes, and feedback from the community.

Trail Management Page: Users can create personal lists and bookmark favorite trails, adding organizational value.

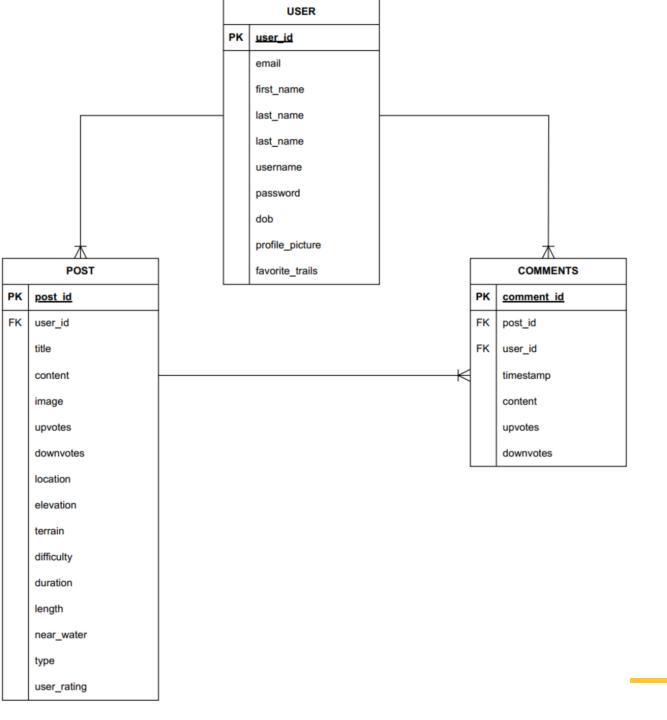
About Us Page: Introduces the team to add a personal touch and promote transparency

User Benefits: Highlights community engagement, personalized recommendations, and features like trail management to improve user retention.

Key Differences

- **Personalization**: Design 2 places a greater emphasis on personalization through features such as a login system, trail feed, and quiz-like feature, while Design 1 focuses more on search filters and reviews.
- **Community Engagement**: Design 2 provides a more interactive community experience with features like likes, comments, and personalized suggestions, whereas Design 1 offers a review system and social media links.
- Trail Management: Design 2 includes a dedicated trail management page for users to track their favorite trails, a feature that is missing in Design 1.
- **Search Page:** Final design does not have filter option like design 1 and 2.





Database Structure







MVPs for SK Trails

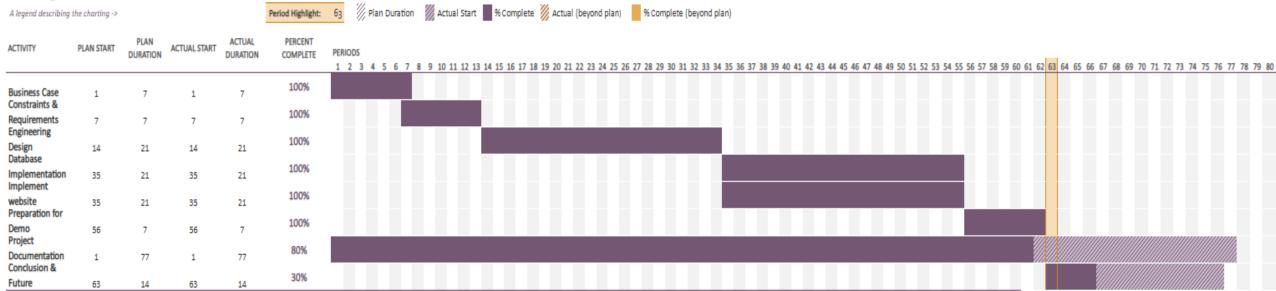


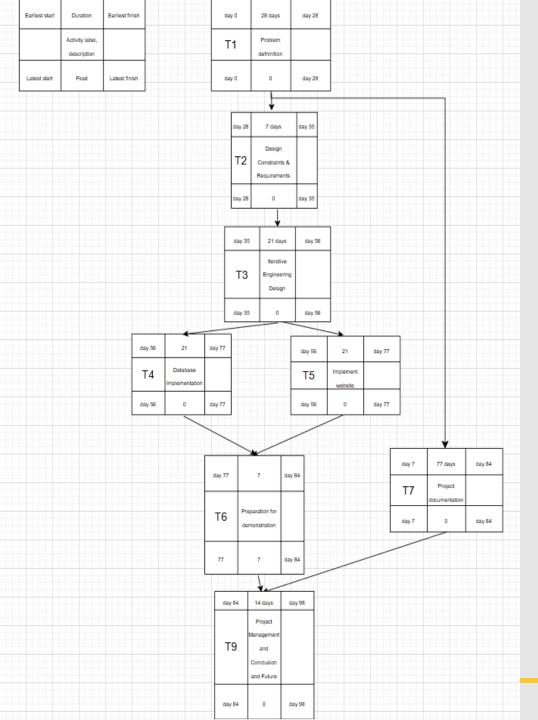


Project Management

 Describe a Gantt chart representing the progress of your work.

Project Planner





Critical Path Analysis

The tasks are similar to...



DEMO TIME

When project is not ready but the client wants a demo



Conclusion and Future Work

All things considered, we would enhance our trails website by adding a filtering option that would let users choose the type of trail they want to hike on and then submit a filter request to show the trails that best suit their interests. We also plan to provide a safer user experience, by enhancing the security of user data, such as their login credentials.



Questions & Answers

