

Project Proposal for HikerRank

Team Members

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I. Project Description

A. Motivation

In times of the Covid-19 pandemic, hiking has become a popular outdoor activity that can enable people to enjoy the gifts of nature while maintaining social-distancing. For people who are just recently attracted to this activity, the first thing they would do is to search online for what hiking trails they have near them. They may also tailor their searches with specific preferences, such as hiking difficulty and trail type. Currently, what we would do is, first, searching trails with acceptable distance based on online map services, picking some of the trails, and then searching detailed descriptions of them to see which one meets our needs best, which is fairly inconvenient and time-consuming.

So what we want to achieve here is to build a map-based website where one can view all available options of nearby hiking trails and also have immediate information about the trail features at the same time. We also want to add social networking features, such as personal hiking reviews, personal page, and friends circle, build a sharing platform, and enable more interactions between hiking fans.

B. Major features

Trail information: trail description (difficulty, rating, attitude, length, photos, reviews, pet policy), map visualization, driving direction, recent hiker check-ins, weather information, land manager, recent update, etc.

Features available for logged-in users: show nearby trails, rate difficulty, rate trail overall, set favorite, leave reviews, upload photos, check-in a trail, search for trails with keywords, trail recommendations based on location/difficulty, add new trails to community

Social network: follow/unfollow users, have personal page for blog posts of hiking experience (with photos), initiate hiking event on a particular trail on a specific date, send invitation to other users as teams to join a hiking event

Chatting: online chatting with other users

II. Technologies

Hiking Project as data source

Mapbox as geological information API

Django framework

MySQL as database, maybe MongoDB

React

AJAX

Figma as UI/UX design collaboration platform

Django Channel Library (To build the chat functionality)

Jira for task management