

Welcome to the Ski-Bums-16 wiki!

CMSC 12200 - Final Project Proposal

Ski-Bums-16

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Description:

The goal of our project is to create a website using Django that will tell users the best place(s) to ski based on their preferences. Some input options will include current location, maximum driving time, and preferred day to ski (weekday or weekend). In addition, they will be able to select other data that they are interested in looking at for comparison such as whether the ski resort offers ski lessons, tubing, night skiing, etc. All of the information about the ski resorts will be stored in a database. Based on this criteria, the program will decide the best place(s) for them to ski and output the top three choices along with the driving directions to these resorts as well as the criteria the resorts matched. The program will inform users if there are no ski resorts within their preferred driving time, and it will tell them the closest resort to their current location.

Data Source:

Currently, we are trying to get access to the API from <http://feeds.snocountry.net/> (SnoCountry Conditions & Profile JSON API) and we have contacted the person in charge. If we get permission to use this, we will have access to information about every ski resort in the US including the location (latitude and longitude), hours of operation, and other information such as whether they have night skiing, etc. In addition, we will have access to information about the weather, such as present and future temperatures and predicted snowfall. (If we do not get access to this, we are planning to get the ski resorts from Wikipedia and use a weather API to get the weather.)

New Data Structures/ Programming Technologies: (Subject to change)

Django - Create the web interface/ search engine - Figure out how this will interact with the database we plan to create

Creating/ Managing a Database - Using a SQL Database

APIs - Ski Descriptions (from either Sno-Country or Wikipedia) - will contain information
- Google Maps - use this to determine the route/driving time from the user's current location

Preference Algorithm - Search database for search terms - Rank output in a meaningful way

Timeline:

January 31 (beginning of 5th week) - Acquire data and be able to access relevant databases. We should be able to determine whether enhancement or additional sources are needed.

February 9 (6th week - 1st check-in) - Build database - decide on structure/ format; determine how to mesh with the interface

February 23 (8th week - 2nd check-in) - Create web interface (Django) - Decide on how to output the results - Write an algorithm that will rank the destinations based on the user's' preferences

March 13 (10th week) - Finish project and submit