

The current state of your project: what works, and what doesn't. This needs to match the code and data committed in your team's repo on GitHub.

We currently have a prototype of how we want the website to look like. There is a text input field that takes in longitude and latitude and a submit button that, when pushed, will take in the inputs and generate a google maps page centered at the given coordinates. The front-end design is coded in HTML and CSS. The backend is coded in Python using Flask.

We have also finished gathering and coalescing the climate and fire data.

Any feature changes to the proposal. As we discussed in class, no reason is necessary for M1, but any feature changes in M2 et seq will need a technical justification. Obviously, feature changes need to keep in spirit with the project, so you can't for example remove all the hard parts :)

We will be moving the pair tasks to milestone 2. Given that the time between milestones 2 and 3 is longer, we have shifted tasks there. The milestone 3 to milestone 4 tasks will remain the same.

The current challenges / bottlenecks you are facing, both technical and otherwise, and what you are thinking of doing about it.

A challenge concerning the website will be having the contents fit nicely on different dimensions of the user's monitor or screen. Although this adds more time in order to account for this issue, we plan on using a CSS feature called media queries that allows you to code for your webpage to fit on different screens such as phones, tablets, and computers.

A possible challenge for the dataset is incomplete information. If RapidAPI has not found a weather station within a 50 mile radius, it returns an error message. This was handled in data gathering by replacing the error message with 'N/A' fields, but we do not know how significant this will be. Since random forests are able to handle missing data, we can use it as is. We will also test by filling in the missing information with the mean of the values in the column or simply replace with 0's. We will see which works best.

Additionally, locations for the 'no fire' case were created by randomly generating from latitude {48, 60} and longitude {115, 130} but since BC's boundaries are not a perfect rectangle, the coordinates might not be in bounds. This shouldn't be a big issue. For example, if the coordinates were in the middle of the ocean and we cannot get any weather data, it shouldn't matter since the coordinates themselves should convey that fires can't start underwater.

For each team member, what tasks were done and which tasks are underway.

Student 1 (Anna Wang) has reached out to Dana.Hicks@gov.bc.ca for access to 'BC Wild Fire Fuel - Internal' and lori.daniels@ubc.ca for additional wildfire data and advice. Student 1 has finished getting climate data using RapidAPI. Refer to CPEN291 project.ipynb and data folder. Pair task to make ML model is underway and currently not in the repository.

Student 2 (James Ardian) has added early functionality to the website using Flask. The current iteration of the website can take in longitude and latitude as inputs to the text bars and, by hitting the submit button, it will bring up google maps centered at the given coordinates. Refer to the statics and templates folder. Pair task to make ML model is underway and currently not in the repository.

Student 3 (Michele Mai), has finished coding a prototype of the website using HTML and CSS. Student 3 added a title, an input text box, a submit button, and left space for the generated data to appear. Refer to the website folder (website folder is HTML and CSS implementation without flask; the one that is altered to work with flask is in statics and templates folder). Pair task to make ML model is underway and currently not in the repository.

Student 4 (Alex Liu) has converted the csv datasets into a new dataset class, which returns the features (columns) of the original csv datasets as tensors, including a label (which was determined from the csv datasets, since they were split by fire/no fire). During this process, changed features whose values were objects into discrete numerical values to be used for training. Tested functionality. In the process of beginning the paired tasks. (*Note: No access to repository as of M1 deadline, so repo pushes will be from another team member for this milestone)