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Proposal Title: Interactive map of most beautiful places / hill stations / beaches around the world.

Proposal Description: An interactive educational web app for learning about the most beautiful and historically significant places in the world.

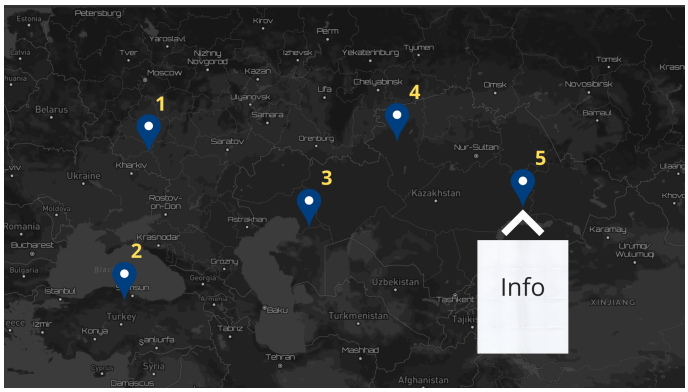
Motivation for Proposal: As someone interested in travelling and exploring places and cities around the globe, I regularly resort to watching travel videos on YouTube and travelling virtually until someday I'll be able to afford to go visit those places in-person. In fact, my whole YouTube feed is recommended with those categories of videos. After watching, I then try to locate those particular places on my map / globe manually or by google search, and wish someday I'll be able to travel there. The main intention behind this project idea is similar. I want to make an interactive map, essentially a web page containing a world map that one can move or zoom in or out using a mouse. There'll be points (like pins on board) that the user can click on and explore the place's info, historical significance, and videos, while simultaneously learning of its location on the map visually. As a result, the learners visiting the repo, will get to:

- learn the concept behind interactivity on websites
- learn to build a map-based application
- implement own custom map and visualize data with it

Goal: Add an interactive web page (map-based application) in the *Bundli-Frontend* project.

Implementation Details:
For the purpose of achieving my goal, I'll make use of Mapbox — JavaScript library for creating interactive, customizable vector maps on the web. I'll then integrate a customized map into the web page and create custom pins with pop-up windows. Since the repository (Bundli-Frontend) aims towards students who wish to learn frontend and make them more interested in it, I'd try to implement the proposal in a basic to intermediate level way, with not so sophisticated code, but at least to the extent of achieving my main goal.

A sample (designed using Canva) of how the web page might look:



NOTE:

- **1 - 5** are markers on the map
- suppose the user clicks **marker 5**, then a **pop up card** will appear with the information
- user can **use the mouse to move, zoom in, zoom out the map** just like Google Maps

The steps of implementation:

1. In the first step, I'll have to sign up for a free Mapbox account in order to create a map.
2. Next, create a custom map with the help of Mapbox Studio.
3. After publishing / saving the map, it will give a map stylesheet location url that I'll use in the next step.
4. I'll then integrate that custom map into my HTML code.
5. I'll use CSS to add some more styles to the map.
6. Then, add rotation and navigation controls.
7. Since Mapbox uses GEOJSON for data visualization and uses a geographic coordinate reference system, I'll create a geojson object (to put in the coordinates) that represents an array of features where each represents a place's name, location, description, image, video etc.
8. Create a custom marker for the user to click and view the place info.
9. Next, I need to loop through the geojson array and for each feature create an HTML element, make a marker for each of those elements (add a className of 'marker' to have custom styled markers) and add them to the map.
10. Also, I will add pop-ups cards to each location to display the information on click.

    And finally, READY TO GO!

Tentative Timeline:

24 - 25 June, 2021 (Community Bonding Period)

- Talk with my mentor for suggestions.
- Explore resources (images, videos, information for places).
- Refer some specific parts of implementation from online resources.

Coding Period Starts
26 June - 3 July

- Gather information for places to be used in the map.
- create a custom map (with lots of focus on sophisticated designing since I'll have a lot of time) with the help of Mapbox Studio.

4 July - 11 July

- Create a GEOJSON object and insert location coordinates of all places.
- Create markers.

12 July - 19 July

- Integrate that custom map into the HTML code.
- Add loop over GEOJSON functionality and add the markers to the map.

23 July - 31 July

- Add pop-up cards to all markers.
- Work more on the designing aspect (overall look of the web page) using CSS.

1 August - 10 August

- Add a navigation bar to the web page.
- Add dark / light modes.
- Include other sophisticated functionalities and a search bar (to search places directly).

11 August - 18 August

- Convert the website into an app using Android Studio (not the usual app making process, but there's another process for that).

18 August - 25 August (Final Week)

- Make the web page responsive.
- Review all files and code for any errors.
- Refine the User Interface.
- Submit the code!

NOTE: I'll be having conversations with my mentor regularly and keep him updated with the progress. Also, I'll try to incorporate many ideas as and when they appear in my mind. As I'm kind of used to getting ideas when I'm actually working on something.

Other obligations during the program phase:
Not as many obligations other than regular summer semester classes. I'll also have my summer semester final exam anywhere between 9 July to 15 July (but that's only one day). I'll have a lot of free time during these months and I hope to be a lot more productive than usual. I might as well try to add some few extra things and features to the code that will make it a full fledged website worthy of attracting users.

About me:
I am from India, but I'm a rising sophomore (2nd year) at New York University, double majoring in Computer Science and Interactive Media. Although I don't have much experience in contributing to open source projects, I'm going to focus on this starting now, especially as I prepare myself to get into GSoC next year :). I'm going to be fully committed to open source for the next several months, searching and grabbing opportunities as and when they appear. This opportunity by PClub is going to be a very valuable and memorable experience for me.

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