

1. Project Title

PanExpedia

2. Project Summary

Ever since the pandemic started, people have been apprehensive about traveling, holding back their urge to explore due to a fear of catching COVID. Despite different countries having certain ideas for whether or not it is safe to travel, many people will have their own personal opinions on the matter. By combining information about both COVID and airports, users will be able to look into the pandemic situation for potential vacation spots, giving them one less thing to worry about while planning a trip. They will also be able to check different airports to see if they want to use them or not.

The main goal of this application is to help people gain confidence in their trips as the pandemic goes on, giving them the power to decide for themselves whether or not to travel to a certain location.

3. Description

We are only going to have data of the top 50 ranked airports so our first page will have a list of the cities we have data for. After the user clicks on a city, we show them:

- The airport in that city and its ranking
- A graph showing the number of COVID cases
- Latest information on the number of weekly COVID cases, vaccinations, testing, and hospitalizations
- Buttons leading to more in-depth information (like historical data and graphs) for each of the categories

For the in-depth information, we will have a graph with filters according to daily vs total numbers and which year. We will also show a small table showing the same. Users will also be able to provide reviews for airports they have visited, and will be able to see the reviews of other users for airports they are thinking of using.

4. Usefulness

The pandemic has caused a lot of uncertainty about travel, with fear around catching the virus. Our website will combine all the data on COVID-19 with country data, making us a one-stop-shop for all information related to it. This will help our users by reducing time spent looking for the appropriate information, some of which may not be in a language they understand. Our visualizations and graphics are more intuitive than staring at daily data and will also help in understanding when the best time to travel would be, based on historical data over the years.

5. Realness

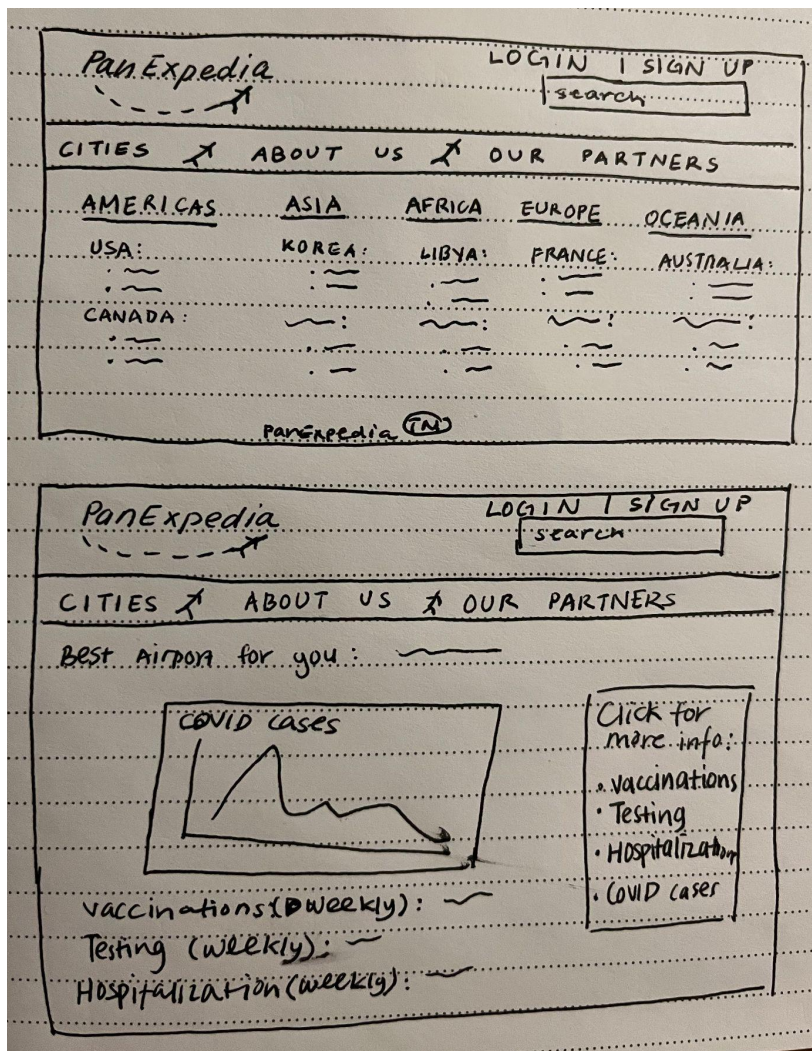
For the COVID-19 information, in regards to total cases, vaccinations, and other related attributes, we will get the data from Our World In Data. Specific aspects of the data, such as hospitalizations and deaths, come from John Hopkins University. For the airport data, we will use a ranking of airports from Kaggle. This data contains information about specific airports, as well as how they ranked that year among all the airports. We also plan on having users and user information, which will just be randomly generated.

6. Functionality

The data that would be stored in our databases would be mostly numerical, keeping track of things like number of cases, vaccinations, and more. We will be able to relate these attributes through a few different attributes, but the main key would be the location, which will relate our entities. We would like for users to be able to search for specific cities/countries of interest, and have the opportunity to look through basic information regarding covid in regards to that location.

An additional feature that we want to add is to give users the option to do more analysis, providing graphs on covid cases, vaccinations, and more for that location. That way, users will have the option to get more data to base their decision on, but they won't be overwhelmed by everything at once. As a nice side feature, we want to add links to different websites where people can buy plane tickets, reducing the number of steps they need to take after deciding on a vacation spot. We're aware that people are indecisive and won't necessarily decide in one sitting. We would like to give users the ability to create an account and save certain trips. More specifically, city location. That way, their information will be saved for when they come back. We will also keep track of the reviews of the airport that are left by users by updating our databases to keep track of the data.

7. UI Mockup



8. Work Distribution

Backend / basic functionality / data scraping / api usage / data filtering

Tejal: UI Design & Frontend

Tarun: Backend & Data Filtering

Steven: Data Filtering & Frontend

Steven James, Jeff Shin, Tarun Voranganti, Tejal Bajaj

Jeff: Backend & Data Scraping