PANGEA

THE WORLD AT A GLANCE

CS375: WEB AND MOBILE APP DEVELOPMENT
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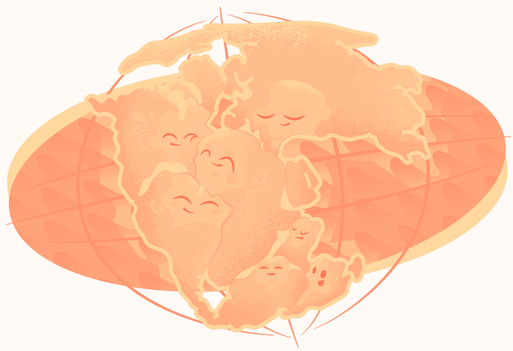
What is PANGEA?

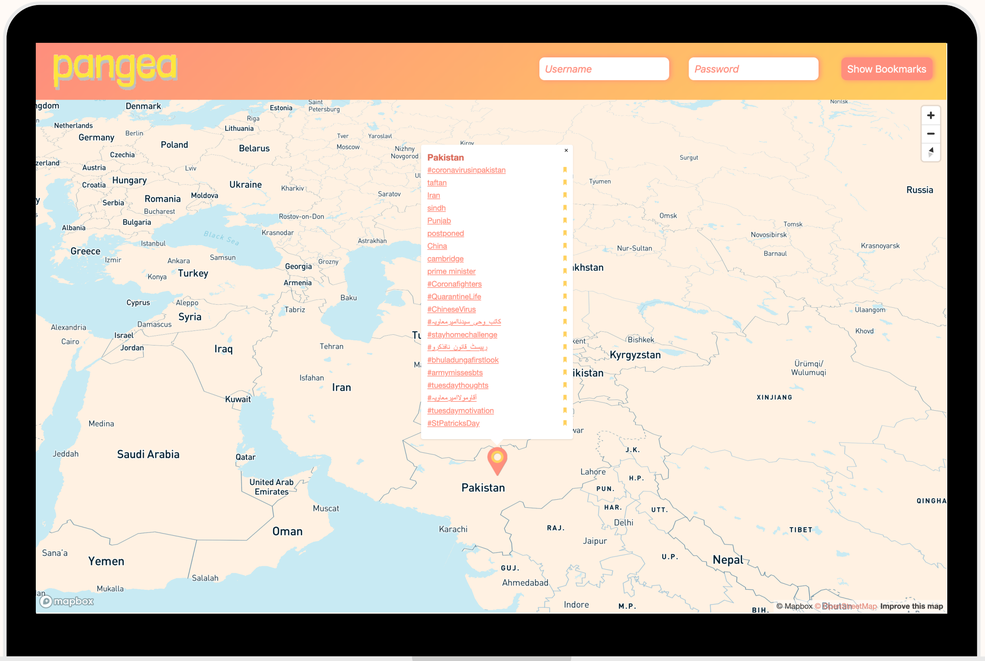
PANGEA AS A DATA VISUALIZATION TOOL

Pangea is a web application with a simple map interface where users can select a location on the map and observe the recents news and trends in that area.

PANGEA AS A LEARNING TOOL

The interactive display not only informs users of trends on a global scale, but also fosters a learning environment that promotes cultural awareness and a knowledge of geography, world demographics and foreign affairs.





OUR INSPIRATION

In 2016, the **Global Literacy Survey** revealed significant gaps between the knowledge young adults currently hold about today's world, and what they should know to successfully navigate in it.

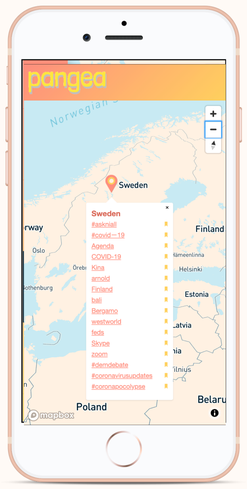
KEY POINTS

- 1,203 college-aged adults who attend or have attended a 2- or 4-year college in the United States were asked 75 questions about geography, recent foreign affairs, and economics
- 86% said they consider themselves at or above average in terms of knowledge about global affairs

THE AVERAGE SCORE ON THE SURVEY WAS

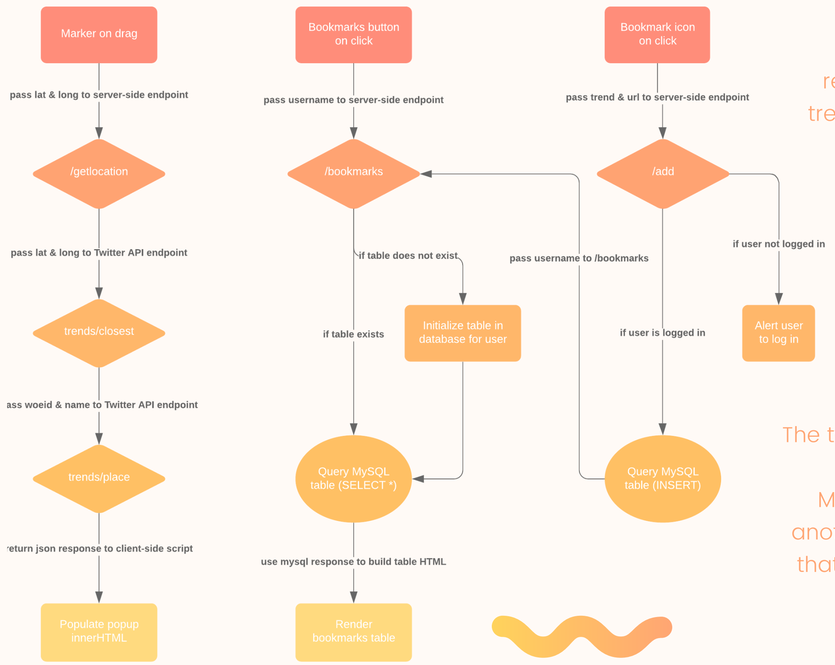
55%

A FAILING GRADE BY MOST EDUCATIONAL STANDARDS



GEO-BASED TRENDS

The latitude and longitude are extracted from the marker and passed to the Twitter API's trends/closest endpoint, which return a JSON containing location data, from which the WOEID ("Where On Earth ID") and location name are passed to the trends/place endpoint, which then returns a JSON of trending topics & hashtags.



Our server-side script has three endpoints: /getlocation, /bookmarks and /add, each requiring their own set of queries. Since geo-based trends are the heart of our project, we had to extract the latitude and longitude at which the marker was dropped. The Twitter endpoint for trends does not take latitude and longitude as query parameters, however, so to bypass that we had to go through an intermediary endpoint that returned a query parameter that we could use, known as the WOEID, or the "Where On Earth ID," which is what we passed to the second Twitter endpoint, and that returned a JSON of the various trending topics for that given ID. The two other endpoints on our server are responsible for the user's interactions with our bookmarking feature. Showing the bookmarks for a given user instantiates a MySQL query that creates a table for that user if it does not already exist, and then another query selects all values in that table and we use the response returned from that query to render our HTML table of bookmarks on the client-side. If a user wishes to add a bookmark, a MySQL INSERT statement is initiated, after which the user is redirected to the /bookmarks endpoint so they can observe the changes.