TB Mage Stic
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e.g.

APIs Used:

- Eventbrite
- Google Places
    - Place Search
    - Place Details
- Google Maps
    - Geolocation

Functionality

Users will receive a wide variety of events from the Eventbrite API based on their location, found by Google Maps Geolocation API.

The Eventbrite API has a search function that takes in coordinates (latitude, longitude) and returns a list of events. You can specify the distance around the location in which you want to search for events (essentially, the radius of results.) Additionally, the user can also specify certain categories to further filter the events that are listed, though this functionality will be provided in Advanced Search. Event objects in the Eventbrite API are also very useful.

Parameters

NAME	TYPE	REQUIRED	DESCRIPTION
q	string	No	Return events matching the given keywords. This parameter will accept any string as a keyword.
sort_by	string	No	Parameter you want to sort by - options are "date", "distance" and "best". Prefix with a hyphen to reverse the order, e.g. "-date".
location.address	string	No	The address of the location you want to search for events around.
location.within	string	No	The distance you want to search around the given location. This should be an integer followed by "mi" or "km".
location.latitude	string	No	The latitude of of the location you want to search for events around.
location.longitude	string	No	The longitude of the location you want to search for events around.

The Google Places API

Place Search
The user can search through proximity or a text string and this API returns a JSON list of the results along with a brief summary for each place. The user can search through categories such as establishments, prominent points of interest, and geographic locations. Additional information can be found with the Place Details API.

Place Details
Once a place_id or a reference is obtained from a Place Search, this API can return more specific details about this particular establishment or point of interest by initiating a Place Details request. A Place Details request returns more comprehensive information about the indicated place such as its complete address, phone number, user rating and reviews.

The Google Maps API

Geolocation API
The Google Maps Geolocation API returns a location and accuracy radius based on information about cell towers and WiFi nodes that the mobile client can detect. A macAddress is required to access WiFi nodes. A cellId is required for the cell towers. cellId is a unique identifier of the cell. According to documentation: On GSM, this is the Cell ID (CID); CDMA networks use the Base Station ID (BID). WCDMA networks use the UTRAN/GERAN Cell Identity (UC-Id), which is a 32-bit value concatenating the Radio Network Controller (RNC) and Cell ID. Specifying only the 16-bit Cell ID value in WCDMA networks may return inaccurate results.


```
{
  "location": {
          "lat": 51.0,
          "lng": -0.1
  },
  "accuracy": 1200.4
}
```

Tasks for Completion:

I. Landing page created with Bootstrap: must be aesthetic!
   PATHWAYS (BUTTONS) TO:
   A. Search events by city/location: Search Bar & Advanced Search
      1. Refine search by category
      2. Toggle SafeSearch on/off
   B. Find events based on current location
   C. Enter interactive map mode (extra)
   OTHER PAGES ON SITE:
   D. Search Results Page
   E. Advanced Search page
   F. Events near current location (embedded map)

II. (Extra) Database of user accounts
   A. Ability to share events in a certain location
   B. Can comment on events/experience at retailer
   C. Can save preferences for categories/receive notifications
   D. Can save events you like

III. Searching events by city
   A. Wrapping of Eventbrite's search by city ID functionality
   B. Refine using Channel Search (also provided by Eventbrite)
      1. Can specify categories, safe on/off

IV. Find events based on current location
   A. Google Maps Geolocation API used to find current location
   B. Current location plugged into Eventbrite API to find events around you

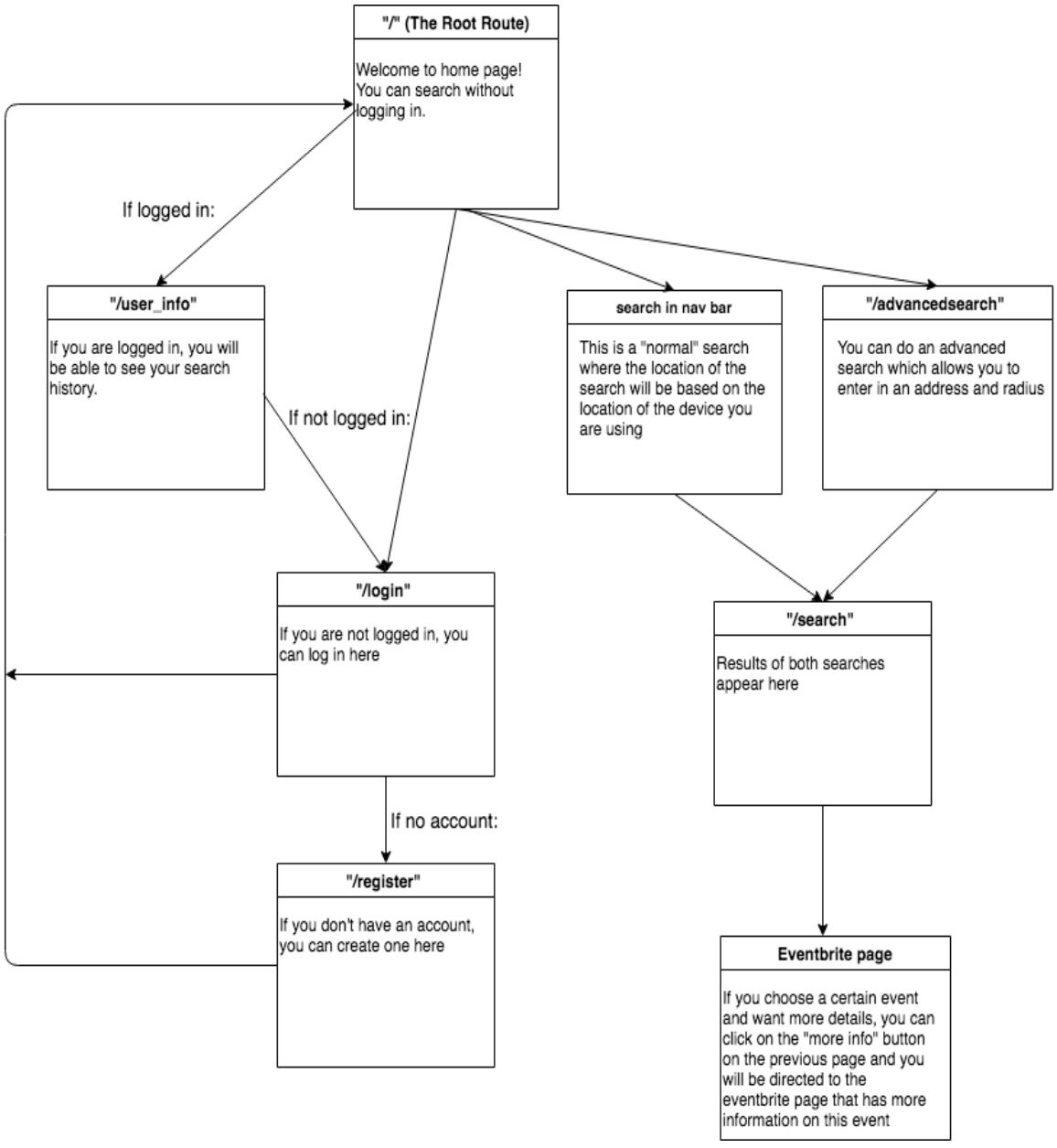
V. (Extra) Interaction Map Mode
   A. Consistent updating of current location and the events around you (shown on map)
   B. Markers of events created using Google Map Embed
   C. Live time updates supported by Google Map Javascript
   D. Markers of user reviews of venues from Google Places/online community

Team Roles

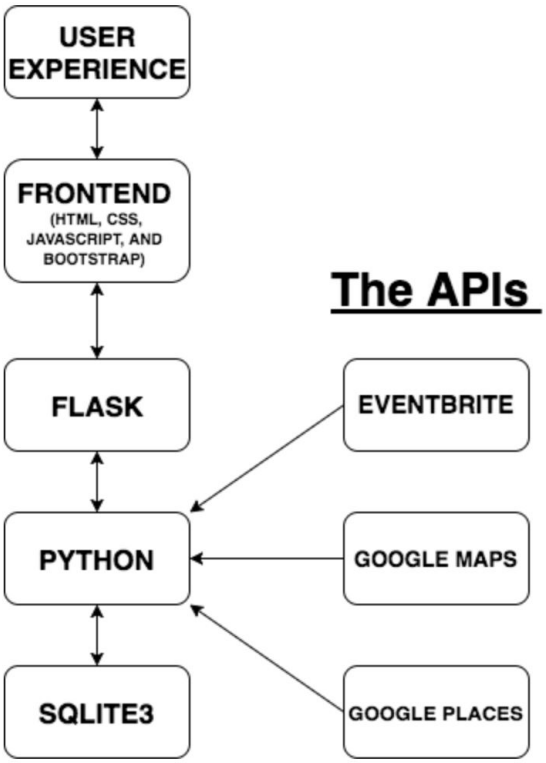
- Jen
  - Google API Handling
- Jawad

    - Project Manager
    - Demo
    - Javascript
- Queenie
    - Eventbrite API Handling
    - Database / User Login / Logout System
- Eugene
    - Frontend coding.
    - Being able to utilize bootstrap and jinja to beautify and enhance the site as a whole.
    - Incorporating elements of JavaScript in our code to increase frontend functionality.

Site Map



Component Map



APIs used:
Eventbrite API : Location call - SAMPLE
Google Maps - Geolocation API

Google maps: geolocation, places, embed, javascript, directions

Eventbrite:

- Takes in a location, returns nearby events
- Measured by Latitude and Longitude
- Optional radius for the distance from you to events
- Can specify categories
- Channel = safe: gets rid of adult events, etc.

GOOGLE MAPS - GEOLOCATION

Overview
The Google Maps Geolocation API returns a location and accuracy radius based on information about cell towers and WiFi nodes that the mobile client can detect. This document describes the protocol used to send this data to the server and to return a response to the client.

Communication is done over HTTPS using POST. Both request and response are formatted as JSON, and the content type of both is application/json.

Before you start developing with the Geolocation API, review the authentication requirements (you need an API key) and the API usage limits.
Geolocation requests
Geolocation responses

A successful geolocation request will return a JSON-formatted response defining a location and radius.

location: The user's estimated latitude and longitude, in degrees. Contains one lat and one lng subfield.
accuracy: The accuracy of the estimated location, in meters. This represents the radius of a circle around the given location.

Database Schema

users

username	password	first_name	last_name	email

search_history

username	history
	[]