Project Name: Credible Edibles
Team Name: LipgLOSSisPoppin
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The Idea:
Credible Edibles will take in an address or the user's location, as well as their preferences for prices/distance/ratings, and create a map of restaurants near them that match their input as closely as possible with the addresses and ratings of the restaurants listed below. The project would use the Yelp, Mapbox, and Google Maps APIs.

Program Components:
- devlog
- README
- app.py
- utils/
    - mapbox.py
    - googlemaps.py
    - yelp.py
- templates/
    - bootstrap/
        - css/
            - style.css
            - bootstrap-theme.min.css
            - bootstrap-theme.min.css.map
            - bootstrap.min.css
            - bootstrap.min.css.map
        - fonts/
            - glyphicons-halflings-regular.eot
            - glyphicons-halflings-regular.woff
            - glyphicons-halflings-regular.svg
            - glyphicons-halflings-regular.woff2
            - glyphicons-halflings-regular.ttf
        - js/
            - bootstrap.min.js
            - npm.js
    - basic.html
    - homepage.html
    - results.html

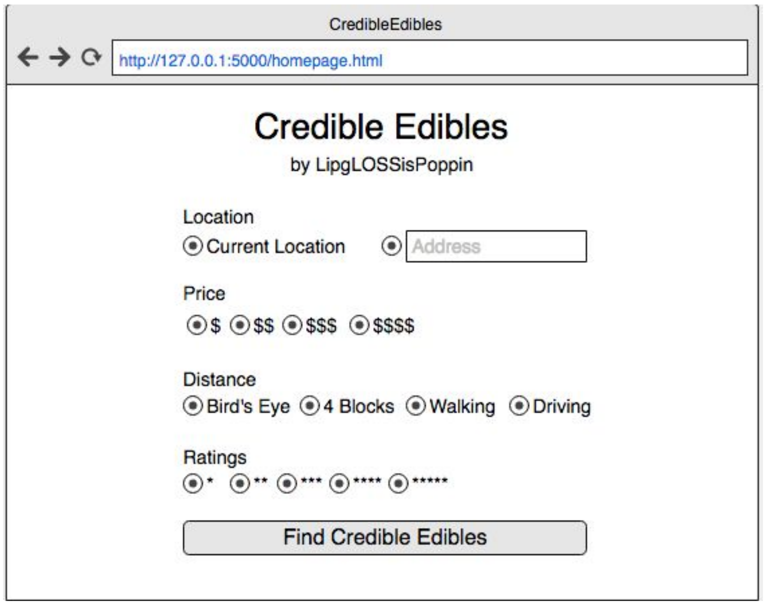
Components Breakdown:
- app.py
    - homepage()
        - Renders homepage.html

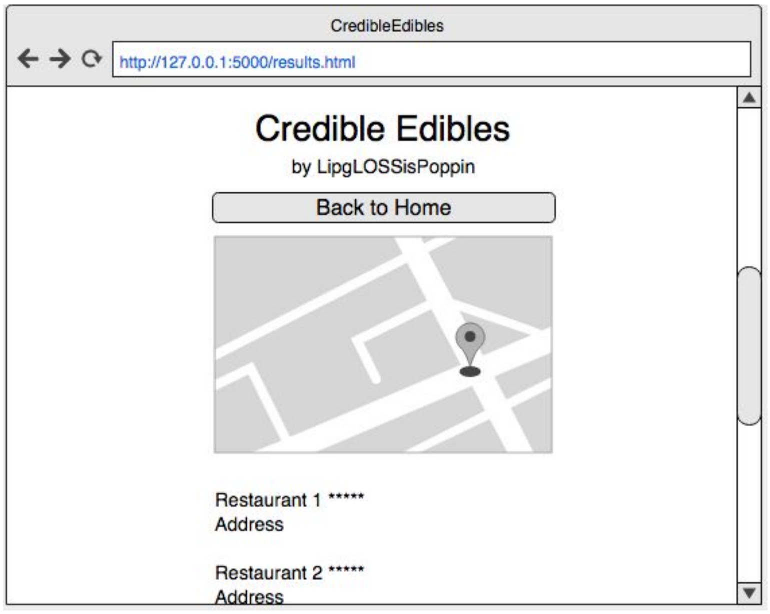
- results()
    - Takes in form responses from homepage (things like location, price, etc.).
    - Sets **loc** to be a list of two elements, lat and lng, either from locate() or geocode(address).
    - Sets **businessesList** to makeBusinessesList(getSearchResults(lat, long, price, rating, distance))
    - Sets **jsList** to makeJsList(businessesList)
    - Renders results.html, loc, **jsList**.

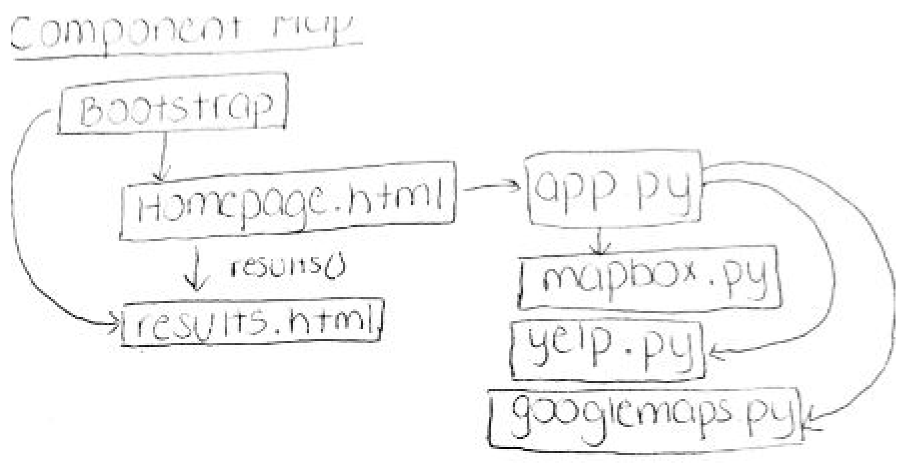
- mapbox.py
  - geocode(address)
    - Constructs and opens a query string. (Note: Set limit to 1.) Loads the JSON object string to get a dictionary.
    - Within this dictionary is a list called “features”, within which there is a dictionary, within which there is a dictionary called “geometry”, within which there is a list called “coordinates”. Set loc to be “coordinates”.
    - Return **loc**.
- googlemaps.py
  - locate()
    - Constructs and opens a query string. Loads the JSON object string to get a dictionary. Within this dictionary is a dictionary with the key “location.” Create a list called loc, set loc[0] to be the value of the “lat” key and loc[1] to be the value of the “lng” key of the “location” dictionary.
    - Return **loc**.
- yelp.py
  - makeBusinessesList(searchResults)
    - Constructs a list, called businessesList, based on the return value searchResults helper function.
    - Structured as a dictionary where the key is the name, and the value pair is a list of attributes to that restaurant
    - Returns **businessesList**.
  - makeJsList(businessesList)
    - This returns a list of dictionaries, called jsList, that’s consistent with the JS format required to display map on mapbox
    - Takes data from businessesList
    - Each venue/restaurant gets a dictionary
      - Keys: “type” , “geometry”, “properties” (which includes “title”)
    - Returns **jsList**.
  - getSearchResults(lat, long, price, rating, distance)

        - Takes input from mapbox/google location data and form data, passed as parameters when called by app*
        - Constructs and opens a query string based on the parameters. Loads the resultant JSON object string to get a dictionary, called searchResults.
        - Returns a dictionary of all necessary information, without extraneous info.
- basic.html
    - HTML document, {% block head %}, {% block body %}
- homepage.html
    - Form
        - Radio: loc
            - Current Location
            - Text Input: address
        - Radio: distance
            - Bird's Eye
            - Walking
            - 4 Blocks
            - Driving
        - Radio: price
            - $
            - $$
            - $$$
            - $$$$
        - Radio: rating
            - *
            - **
            - ***
            - ****
            - *****
    - Form action = /results/
- results.html
    - Map
        - Wrapping JS for loading the map, centered at {{**loc**}}, with features in {{**jsList**}}, adding layer with labels.
    - List
        - Loops through the elements of the featuresList, displaying the names, addresses, and ratings.

Site Map: https://app.moqups.com/syoon1/O1bKRE53p9/view
(See next page for images.)







Tasks/Assignments:
Stephanie - Frontend (HTML, CSS, Foundation), JS
Olivia - Yelp
Lorenz - Mapbox and Google Maps
Shariar - Flask app

Timeline:
Monday - Design Doc
Tuesday - HTML, CSS, JS, app.py
Wednesday - yelp.py, mapbox.py, googlemaps.py
Thursday - Testing

Notes/Resources:
Project Info -
http://www.stuycs.org/courses/software-development/dw/projects/project1getyourdataoffofmeyoudamndirtyapis
locate() - https://developers.google.com/maps/documentation/geolocation/intro
geocode() - https://www.mapbox.com/api-documentation/?language=Python#geocoding
JS and makeJSList() - https://www.mapbox.com/mapbox-gl-js/example/geojson-markers/
Color Scheme: https://coolors.co/
Bootstrap: http://getbootstrap.com/components/
Yelp Authentication: https://www.yelp.com/developers/documentation/v2/authentication
Yelp Search: https://www.yelp.com/developers/documentation/v2/search_api

- **Consumer Key:** Ov-ytNFKKBZfdHYTkdQAoQ
- **Consumer Secret:** b1z2H2DCRH4hf4aQo1zqaTyYYJA
- **Token:** ZCsTHSJC7DAlSVmSQSoe7pxQDDCH_Thk
- **Token Secret:**CNMwy2PUHaXTyXTQe4Qv2lk4BuE
- Yelp uses OAuth 1.0a for authenticating API requests as per the OAuth specification (Accessing Protected Resources).

- oauth_consumer_key
    - Your OAuth consumer key
- oauth_token
    - The access token obtained
- oauth_signature_method
    - hmac-sha1
- oauth_signature
    - The generated request signature, signed with the oauth_token_secret obtained
- oauth_timestamp
    - Timestamp for the request in seconds since the Unix epoch.
- oauth_nonce
    - A unique string randomly generated per request.
- These parameters may be passed in the HTTP (Authorization) header as URL query keys or in the POST data.