

**Happy Meal: Craig Chen(PM), William Guo, Nada Hameed, Erica Li**  
**Target Ship Date: May 26th, 2023**

### **Design V.1 for Happy Meal**

Idea :) !

- Coffee Consumption & Production
  - <https://www.kaggle.com/datasets/yamaerenay/ico-coffee-data-set-worldwide>
  - [Coffee Production \(1991-2020\) - Data from ICO | Kaggle](#)

-> [17 Important Data Visualization Techniques | HBS Online](#)

- bar graph (each country export volume)
- pie chart
- choropleth map (of world?)

#### **Description of Site/Goals:**

- We plan to make a choropleth map of the world showcasing the exports of coffees from each country (or at least the one's on the database) throughout the different years. When users click onto the country, it will redirect them to another page that has a bar graph and pie chart of their coffee export throughout the years.
  - Clients are able to filter results based on country and year.
- Time permitted, a search function to find nearby coffee shops based on location

#### **Program Component:**

- HTML/CSS/JS Scripting
  - Templates to be served to the Flask app
  - Login page with logo
- Python Files
  - Flask app that runs the whole thing
    - Our web server and delivery framework
    - Utilizes database functions
    - Calls from APIs
- Backend databases
  - SQLite

#### **Component Relations:**

- Login Page that redirects users to the homepage through a username and password

- If not registered, allows users to register new username and password before entering homepage
- Home page where the data set is presented using data from the databases (world map of coffee consumption)
  - Click on country that redirects to another page that shows consumption by year in a bar graph and pie chart
- Search option that allows users to find coffee shops nearby through APIs

#### Database Organization:

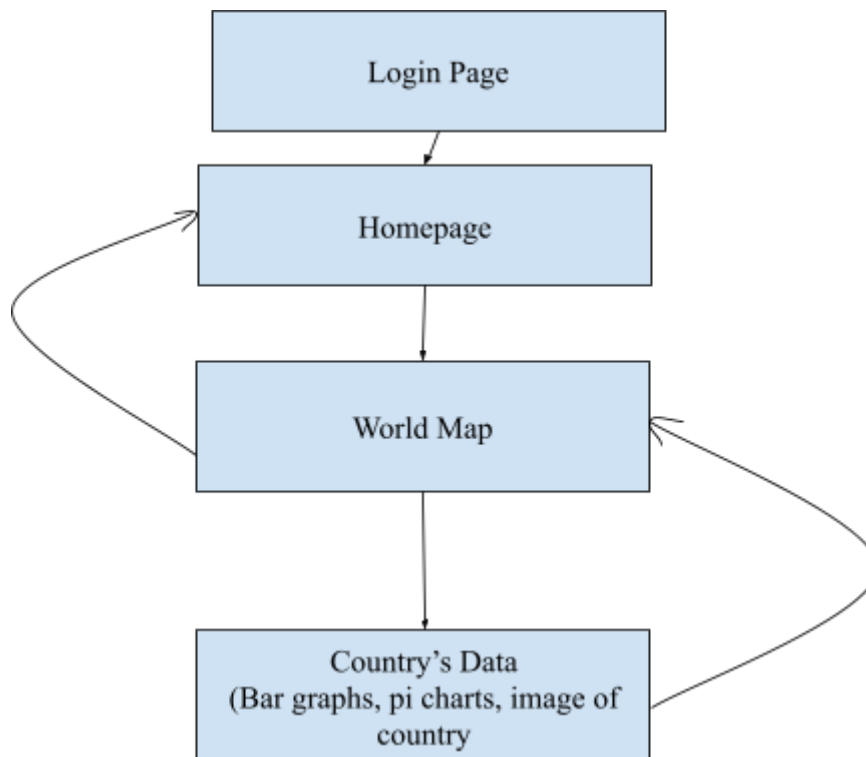
- Table with 3 rows
  - Country where the coffee is exported
  - Amount of coffee exported in thousands of 60kg bags
  - Year of export

Country	Amount Exported	Year
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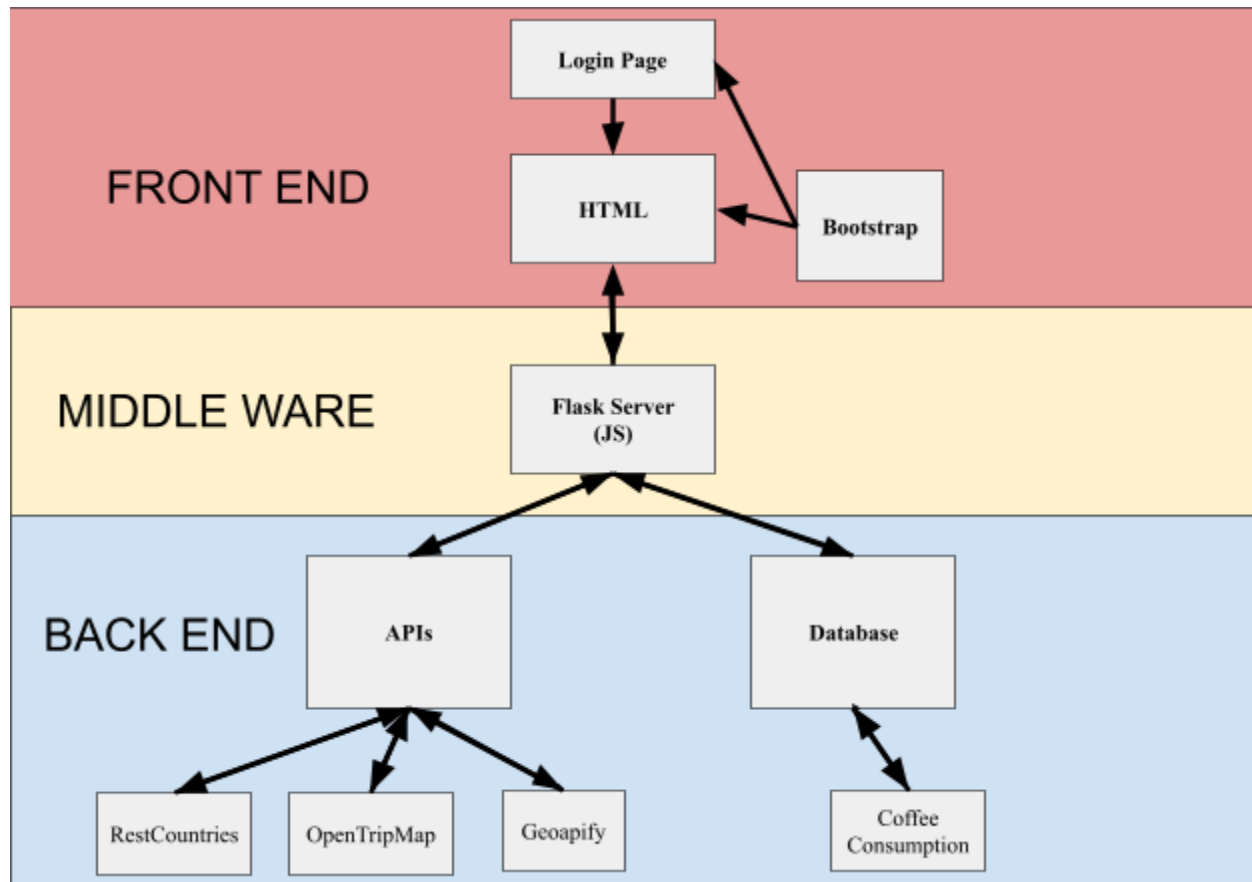
- Table with 2 rows for username and password

Username	Password
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#### Front-End Site Map:



### Component Map:



### APIs:

- [Geoapify](#): Pulls a static image of a specified location
- [RestCountries](#): Gives a specific country's population, currency, language, capital
- [OpenTripMap](#): Returns a list of places with addresses based on a location, type, etc (in our case: coffee shops)

### FeF Used:

Bootstrap because of its comprehensive labeling as well as the ability to organize our pages with the nav bars.

### Task Assignments:

- Craig: API & Flask app
- Erica: HTML/CSS work
- William: JS visualization
- Nada: databases

**TED TOPICS possibly used and why:**

- Python Pandas because it has lots of data visualizations tools such as bar graphs, line charts, histogram which can be used to compare the js visualization to see if it's correct.
  - Also it has great functions to manipulate data like filtering, cleaning and summations to help reshape and transform data to fit our needs