

# Team Burgers and Fries

Benjamin Avrahami: Frontend and Bootstrap Framework

Ethan Chen: Backend Flask/API

Peihua Huang: Database

Jionghao Wu: Project Manager

## Core Components:

- Login Mechanism
  - After they click login, their info is checked with the database to make sure that the username and password are correct
  - If either is incorrect, they will be returned to the login page with a flashed error
  - If the user correctly signs in, a new session will be created and they will be redirected to the homepage
- Sign up Mechanism
  - Users also have the option to create a new user, which will be on a different page
  - They have to put in a username and password, neither of which can be blank
  - If the username is already taken, they will be returned to the page with a flashed error
  - If the signup is successful, a new session will be created and they will be redirected to the homepage
- Home page
  - The home page will welcome the user and guide them either to the quiz or to search for country facts
  - There will be a link redirecting to the quiz, and a search bar to look for countries, which will autocomplete countries the user types
  - The background will be a map taken from Maps Static
- Quiz
  - The quiz will be to list out all the countries of the world.
  - Quiz progress will be saved until user logs out.
  - User can also choose to reset quiz.

- As the user enters each one in, there will be a table displaying the results, organized by continent
- Country page
  - Each country will have their own page, which can be accessed by the search bar on the home page
  - Many facts about each country will be provided by the Countries and UNdata APIs
  - There will also be a currency converter for most countries, which will convert some amount of that country's currency into a number of other currencies

### Possible APIs used:

REST Countries - basic info about countries

Currency Exchange - exchange rates between base country and other countries on record

Open Trivia - list of trivia questions (may be implemented if time allows)

Maps Static - customized image from google maps

UNdata - information on growth, pollution, and health indicators that the UN uses

Agify.io - number people and average age of a person with a given name in a given country

### Component Map:

login page "/login"	create-account page "/create-acc"
<p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p><input type="button" value="Login"/></p> <p><input type="button" value="Create Account"/></p>	<p>Username: <input type="text"/></p> <p>Password: <input type="password"/></p> <p>Re-enter Password: <input type="password"/></p> <p><input type="button" value="Create Account"/></p> <p><input type="button" value="Return to Login"/></p>

homepage "/home"

Navigation Bar

Search.....SearchLogout

Welcome <username>

Name all Countries Quiz Button

MAP BACKGROUND

Weird Facts

Enter name:

Choose a country:

Results:  
Average age of person with <name> in  
<country> is: <age>

countries quiz "/c-quiz"

Navigation Bar

Search Country...SearchLogout

Welcome <Username> to the Countries Quiz

Country Name:  Check

Flag of Previous Country Found

LIST OF COUNTRIES FOUND BASED ON CONTINENTS				

search results "/search"

Navigation Bar

Search Country...SearchLogout

Search: <keyword>

List of Countries found

country page "<country\_code>"

Navigation Bar

Search.....SearchLogout

Country: <blahhh name>

Random info about country  
Category: info  
.  
.  
.

Country Flag

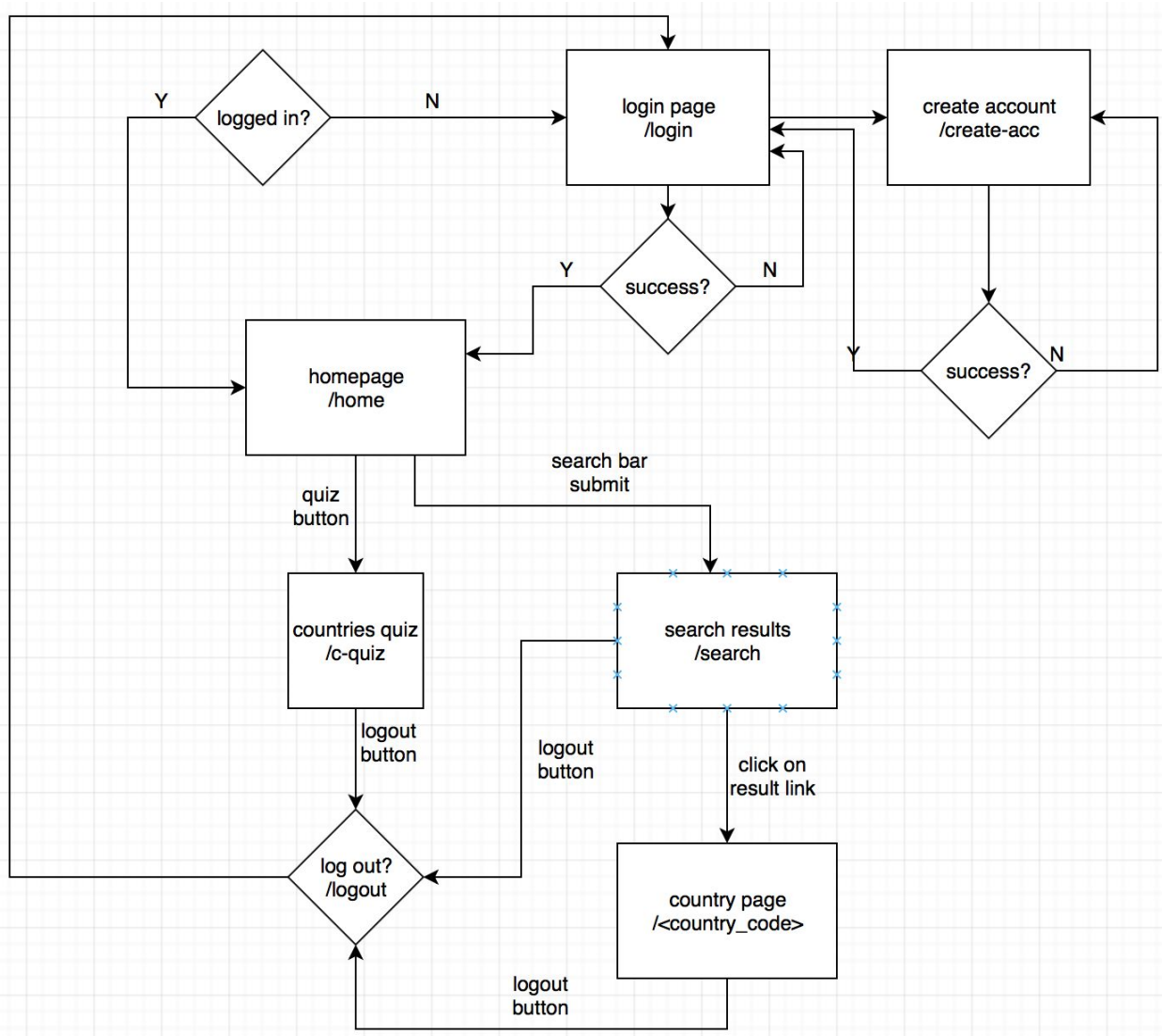
Currency Converter

Value...currency

Convert!

Result:  
This much blah = that much this country blah

## Site Map:



## Database:

users	
Username	Password
TEXT	TEXT

countries

NAME	ALPHA-2	ALPHA-3	FOUND
TEXT	TEXT	TEXT	INTEGER (0 = NO, 1 = YES)

countries\_stat

NAME	CALLING_CODE	CAPITAL	POPULATION	LANG	FLAG	CURRENCY	REGION
TEXT	TEXT	TEXT	INTEGER	TEXT	TEXT	TEXT	TEXT

currency\_exchange

COUNTRY_1	CURRENCY_1	COUNTRY_2	CURRENCY_2	VALUE
TEXT		TEXT		REAL

name

NAME	CODE	COUNT	AGE
TEXT	TEXT	INTEGER	INTEGER

## Functions:

```
add_login(username, password)
```

- Returns empty string if added successfully
- Returns error message as string if credentials already exist or if either username/password is empty

```
verify_login(username, password)
```

- Returns empty string if credentials are correct.
- Returns error message as string if credentials are incorrect or if username/password is empty

```
convert_currency(curr_1, value, curr_2)
```

- Returns a double of how much value in currency 1 is in currency 2.
- Returns -1 if value is invalid (ie: a negative number)

`reset_quiz()`

- Set all FOUND values to zero, thus resetting the countries quiz.

`get_name_stats(name, country)`

- Returns a list of the average age of people with the given name in the given country.
- Returns empty list if name is not found

`has_name(name, country)`

- Returns True if stats for given name in given country (based on alpha-2 code) has already been pulled from Agify.io API.
- Else, return False

`add_name(name, country, count, age)`

- If given name and country is not already in the name table, convert country to alpha\_2 and add a new entry to name table.
- Else, do nothing.

`alpha_2(country)`

- Return the alpha-2 code of a country if country exists.
- Else, return empty string
- This two letter code is needed for the Agify.io API

`alpha_3(country)`

- Return the alpha-3 code of a country if country exists.
- Else, return empty string
- This three letter code is needed for Currency Exchange API

`has_currency(country_1, country_2)`

- Returns True if stat for given countries (based on alpha-3 code) has already been pulled from Currency Exchange API
- Else, return False

`add_currency(country_1, country_2, rate)`

- If given countries are not already in the name table, convert countries to alpha\_3 and add a new entry to name table.
- Else, do nothing.

`has_country(country)`

- Returns True if given country has already been pulled from REST Countries API
- Else, return False

`add_country(country, calling_code, cap, pop, lang,  
flag, curr, reg)`

- If given country is not already in the countries table, add a new entry to the table.
- Else, do nothing.

`search_country(keyword)`

- Return a list of countries with given keyword in its name.