

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"
<div> <div>Username: <input type="text"/></div> <div>Password: <input type="password"/></div> <div>Login</div> <div>Create Account</div> </div>	<div> <div>Username: <input type="text"/></div> <div>Password: <input type="password"/></div> <div>Re-enter Password: <input type="password"/></div> <div>Create Account</div> <div>Return to Login</div> </div>

homepage "/home"

Navigation Bar

Search.....SearchLogout

Welcome <username>

Name all Countries Quiz Button

MAP BACKGROUND

Weird Facts

Enter name: name....

Choose a country: countries ▾

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: Enter country here....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

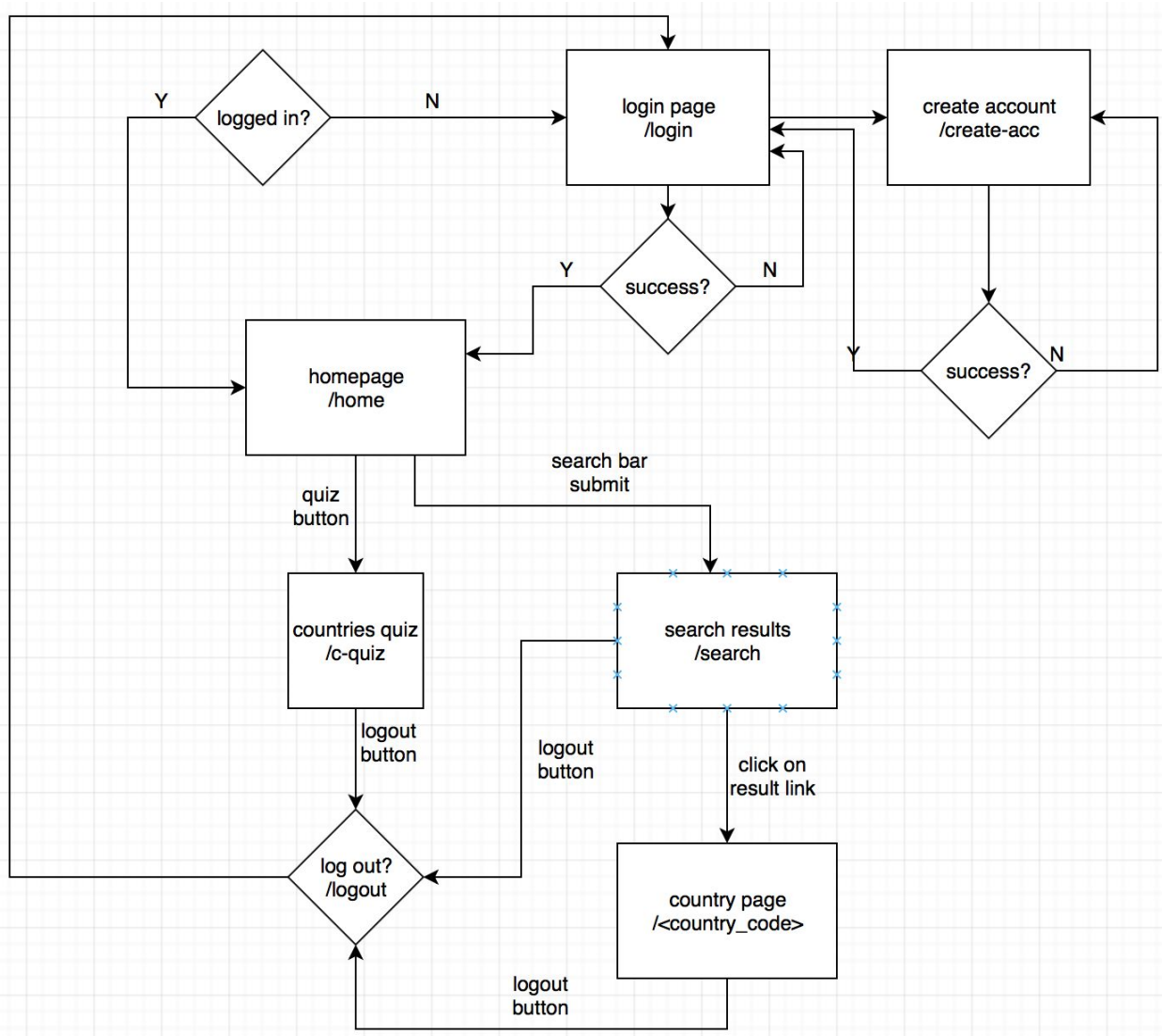
Currency Converter

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)

stat

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

currency

CURRENCY_1	VALUE_1	CURRENCY_2	VALUE_2
TEXT	REAL	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) or if the conversion rate is not in database

`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.

`get_alpha(country, type)`

- Return either the alpha-2 or alpha-3 code of a country if country exists.
- The type returned is specified by "2" or "3" as type
- Else, return empty string
- The two letter code is needed for the Agify.io API and the 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.

`found_country(country)`

- Set found column for given country to 1 (meaning user found it in quiz)

`get_found_countries()`

- Returns a dictionary, with the keys being the 5 regions of the world (Americas, Asia, Europe, Africa, Oceania) and the values being the list of countries found in each region