

TopherTime Studios -PMTB(Tawab Berri), DAL(Alex Luo), DJM(Jonathan Metzler), DJL(Jacob Lukose)

SoftDev

P05: Le Fin

2025-06-04

Time Spent(on design doc): 3

TARGET SHIP DATE: 06/06/2025

DESIGN DOCUMENT

I. Description

Our project will be focused on creating a replica of GeoGuessr by using GoogleMaps StreetView panoramas. During each round the server picks a random StreetView coordinate and shows the panorama next to an interactive world map (depending on the region the user has selected). The player drops a marker on where they think the street is located and submits. The game then reveals the location, draws a distance line, and awards points based on the distance between the true location and the user's location. Our game will have multiple regions and a timed mode.

A. Program Components

- I. Flask/Middleware
 - a. Handles URL routes and serves web app while managing session flow.
 - b. Session Management: Keeps track of logged-in states and user data inputs for obesity predictions
2. SQL Database
3. API Functionality
 - a. Handles google maps api-api feeds map footage and location for games
4. Front End
 - a. HTML templates to display data from Flask routes
 - b. JS to add functionality

B. Database Organization

Users:

user_id	username	hash
INTEGER UNIQUE AUTOINCREMENT	TEXT UNIQUE	TEXT

Scores:

score_id	user_id	region	mode	points	distance
INTEGER UNIQUE AUTOINCRE MENT	INT	TEXT	TEXT	INT	REAL

Scores:

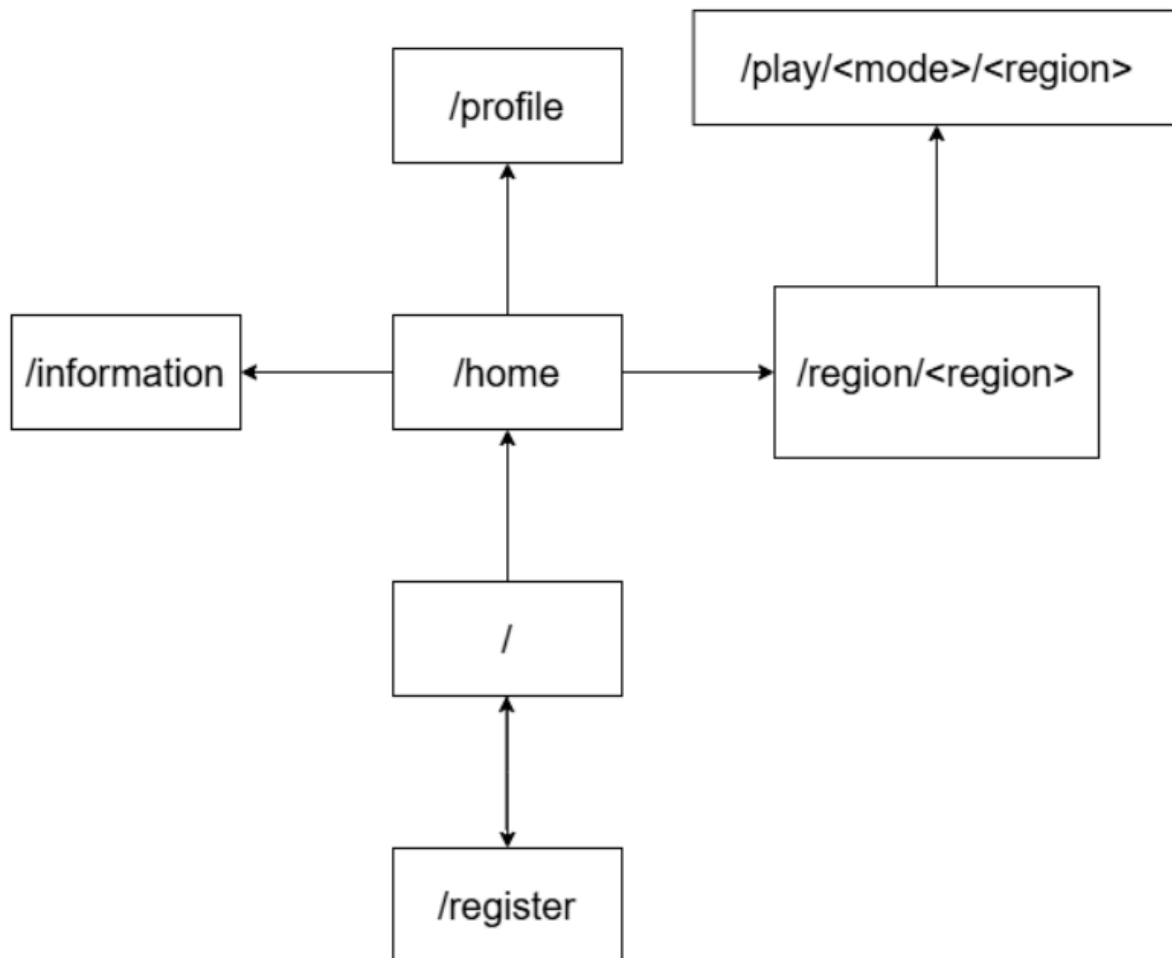
round_id	user_id	region	mode	move_mode
INTEGER UNIQUE AUTOINCREME NT	INT	TEXT	TEXT	TEXT
round_number	points	distance	round_time	timestamp
INTEGER	INTEGER	REAL	REAL	DATETIME

Location:

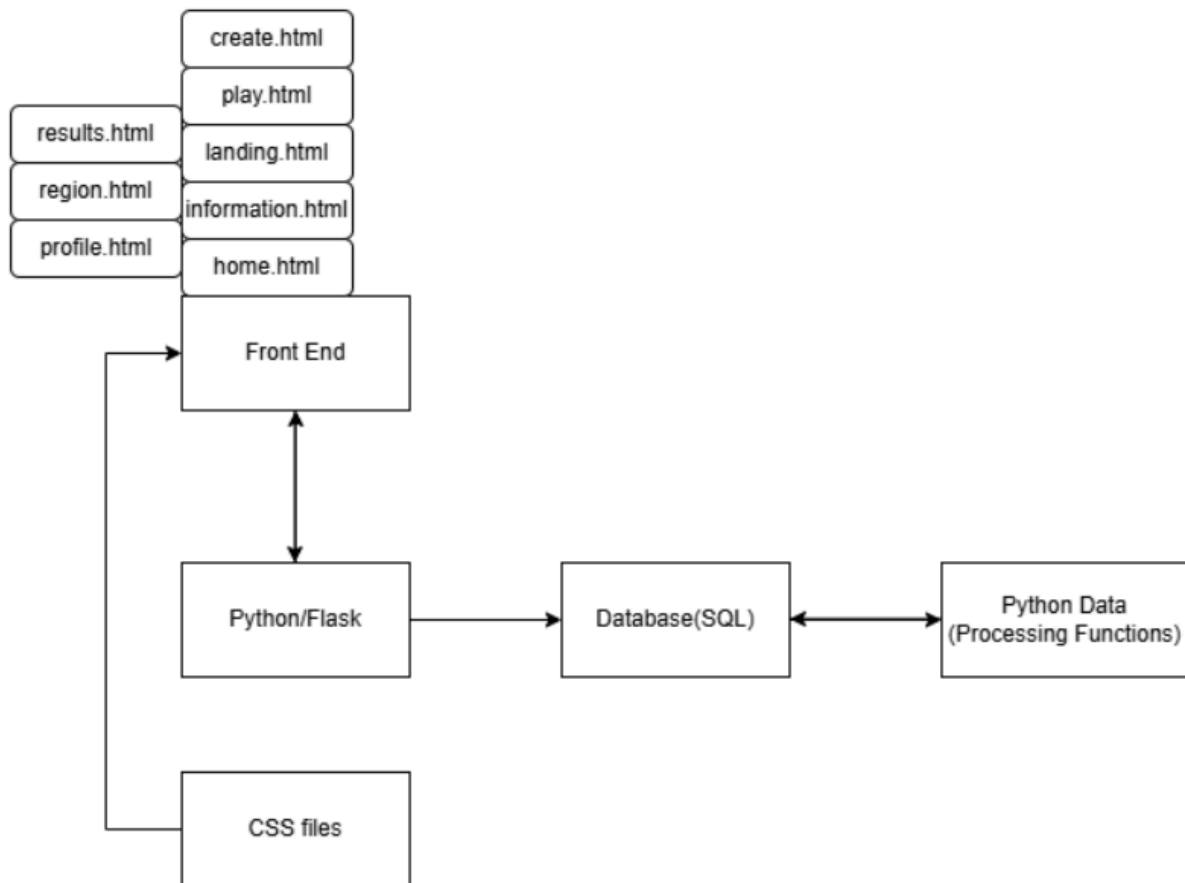
loc_id	lat	long	region
INTEGER UNIQUE AUTOINCREMENT	REAL	REAL	TEXT

C. Site Map + Descriptions

1. (/) - Allows users to login
2. (/register) - Same UI as login except registers users
3. (/home) - Shows all regions that the user can play, as well as profile, information, and logout buttons
4. (/region/<region>) - Shows leaderboard for the region, as well as settings for the game, such as if you are able to move, time constraints, and a play button to start the game
5. (/play/<mode>/<region>) - The actual game component, shows the google maps API at a random location as well as a map that users can click on to guess where in the world they are
6. (/profile) - Shows previous games that a user played with stats like region, points, time, distance, etc.
7. (/information) - Shows information about the game



D. Component Map



E. APIS

- GoogleMaps (Maps + Streetview): Panorama display and interactive map

F. TED TALK USAGE (LaTeX)

- Used to show how score is calculated for each round of the game

G. Task Breakdown

- I. Project Manager - Tawab Berri
 - a. Housekeeping and facilitating productivity
 - b. Assisting in Database with DJM
2. FRONTEND Lead - Alex Luo
 - a. Creating styled templates that represent a nice replica of GeoGuessr
 - b. Using LATEX for score calculations
 - c. Data visualization for users (stretch)
3. API/Middleware Lead - Jacob Lukose
 - a. Creating functions to streamline integration of GoogleMaps API and flask app
 - b. Making sure that front end is served adequately with the correct values for FRONTEND lead
4. Database Lead - Jonathan Metzler
 - a. Creating SQLITE database and lat/long presets for players
 - b. Ensuring that there is a solid db for users
 - c. Creating helper functions for API Lead