

EE / CprE / SE 491 – sddec23-11

HOME FINDER

Week 4 Report

02/20/2023 – 02/23/2023

Client: Dr. Bigelow

Faculty Advisor: Dr. Bigelow

Team Members:

Christian Boughton – Team Member

Daniel Chrisman – Team Member

Ella Knott – Team Member

Lith Almadani – Team Member

Michael Wieland – Team Member

Summary

The overall objective for this week was to begin testing tools for the creation of our project

Past Week Accomplishments

- Fourth client meeting was canceled due to inclement weather.
- Continued testing for APIs.
 - APIs:
 - Google Maps - Distance Matrix API:
 - Gives the travel distance and time for a matrix of origins and destinations.
 - We will use this in determining the average monthly commute.
 - Google Maps - Geocoding service:
 - Converts street addresses into longitude and latitude coordinates.
 - Necessary when using the distance matrix API
 - Zillow group - Internal Research Data Sharing API's
 - Gives access to Zillow's internal data, we will use this to find homes within the specified criteria
 - Google Maps - Visualization layer API:
 - Allows us to create heat maps with user inputs.
 - This will be the crux of our project and the main focus of the first prototype
 - Libaddress input tool (on GitHub):
 - Helps collect and handle addresses.
 - Development (Front and Back end):
 - Angular
 - Ruby on Rails

- MySql
- PHP
- ReactJS
- Hosting:
 - Google Cloud Hosting Service
 - Infinity Free
 - Azure DevOPs
- Began designing the website's code structure. We decided to use a front end only approach on the initial design to limit the complexity and expedite the creation of a functional product. After this has been created, we will begin a front end/ back end design.
- We ran into an initial problem securing one of our APIs. Zillow only gives the access token for their MLS database to for profit corporations and thus denied our request. After speaking to one of their help departments we were given access to their research APIs that contain more information than we would have gotten with the MLS API.

Pending Issues

- Acquisition of a hosting platform for the website
- Final determination of the programming languages used

Individual Contributions

<u>Name</u>	<u>Contributions</u>	<u>Hours this week</u>	<u>Hours cumulative</u>
Christian Boughton	Research, planning and design	6	27
Daniel Chrisman	Research, planning and design	6	24
Ella Knott	Research, planning and design	6	23
Lith Almadani	Research, planning and design	6	24
Michael Wieland	Research, planning and design	6	24

Plans for the Upcoming Week

- Test hosting platforms
- Continue testing the APIs
- Develop an initial website design (visual aspect)
- Create small functions using the API's that we can call

Example User Persona Model

Basic information

Laura A. Homes

"The Anxious Homeowner"

- Age: 34
- Job: Animal Psychologist
- Location: Ames, IA
- 2 kids aged 1 and 3
- Attends Zumba classes

Personality

Introvert Extrovert

|-----●-----|

Analytical Creative

|●-----|

Busy Time rich

|●-----|

Messy Organized

|-----●-----|

Independent Team player ★

|-----●-----|

Passive Active

|-----●-----|

Safe Risky

|●-----|

Link 1

Link 2

Link 3

Interests

Working out through Zumba classes

Interest

Working with animals

Interest

Spending time time with family

Interest

Influences

Her children

Influence

Work

Influence

Zumba class

Influence

Goals

Find a house that is close to all amenities and work

Goal

Allow Laura to be able to spend time with her family rather than traveling

Goal

Find a home that is within her budget

Goal

Needs and expectations

A big back yard for the kids and pets to play and for family members gathering

Need

A reasonably priced home that she can decorate the inside

Need

Close to a Zumba gym

Need

Motivations

The love for kids and pet

Motivation

My love for music and dancing

Motivation

Helping animals and including people in love to treat their pet

Motivation

Pain points and frustrations

Spending more time traveling than with her family

Pain Point

Being far away from the kids

Pain Point

Too many possibilities on the market

Pain Point