ExCommute

DEVELOPERS: MARCUS HOBBS   BRIDGET BOURNE
MATTHEW BOND   DAVID MANSEN

Motivation – Job Commuting!

- Commuting forces us to wake up earlier just to spend time stuck in traffic and adds stress to the work day

- We want to find a place to live that saves us time

- Google maps exists, but requires manual, repetitive effort

- What if there was a website that leveraged google maps to recommend housing that minimizes commute to a user's job?

Excommute

- Submit work address and view housing suggestions based on estimated commute time

- Provide a preference on maximum commute distance and cost

- View a map populated with marked suggestions that can be interacted with to provide further information

Design

- App should have responsive design
  - Users may be restricted to their cell phones when driving to locations on their hunt

- Need APIs to locate properties and their prices/rent

- Store properties on our database to improve responsiveness
  - Remove dependency on slow housing API requests

Front End

- Minimalist Design
  - Avoids visual noise or excessive features
- Uses Materialize framework
  - Modern, mobile focused, provides components that will allow rapid app development
- Uses Google Maps API to display map and populate with markers
- Search address autofilled with Google API

APIs

- Google APIs
  - Request location data from submitted address
  - Compute travel time between work and home

- Onboard Property API
  - Request properties in a radius from submitted workplace address

- Zillow API
  - Request home price/rent estimate for property acquired from Onboard

Database

- Firebase used for a simple database solution

- We stored results for Onboard and Zillow API requests to improve performance

  - We would first have to find properties, then make a request to Zillow API for each property

- Property data structured using a latitude/longitude grid system to improve distance search performance

  - Properties within a threshold range of work are given to Google API to find actual commute time

Demo!

- https://dhobbs81.github.io/ExCommute/

Future

- Store more property data so that we can search beyond Orlando

- Add additional search parameters
  - Search by low crime, "walk score", growth in property value

- User Persistence
  - If user leaves and returns, previous suggestions will be available to review

Questions?