### Rogue Two

**Final Presentation** 

Team Members: Vishnu Yarlagadda, Jillian Genova, AiJing Wu, Casilda Lewis

Mentors: Trace Carrasco, Cassidy Schneider, Tyler Luedtke

Professor: Amber Field Company: Capital One

#### **Meet the Team**



Vishnu Yarlagadda



Jillian Genova



AiJing Wu



Casilda Lewis

## **Project Overview**

# Overarching User Story

"As someone who is invested in my community, I want to be able to locate small businesses near me so that I can satisfy my needs and support my community simultaneously"

### **Target Users**

Conscious of impact on the community, environment, and social issues

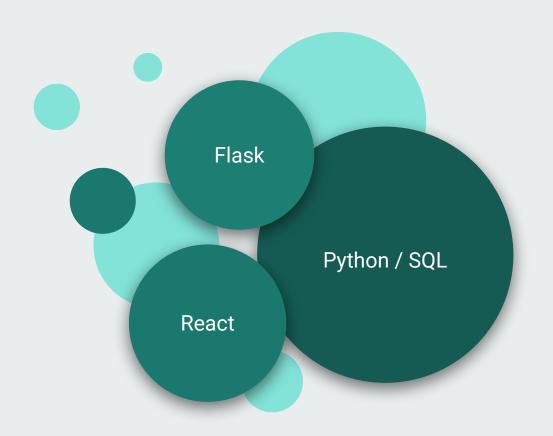
Willing to try new things and research businesses they shop from

- Disposable income
- Age between 18 and 45
- Live in an area with a higher population

#### **High-Level Feature Overview**

#### **User Input Application Output Acceptance Criteria** Provide address Shows list of small Business is near the Filter results based address put in businesses near on desired business address Type of business is Shows map with the what the user type (restaurants, clothing, etc) small businesses desired highlighted as well

### **Application Overview**



## Backend: Python / SQL

#### **Backend**

- SQLite:
  - design the database schema
  - combine raw data of business information from various sources
  - add new information corresponding to each business (eg. coordinates)
  - select small businesses out and rearrange them in new categories
  - support data query and data update
- Python:
  - extract the data from Yelp API and Google Places API
  - get coordinates from Google Geocoding API
  - calculate distance between the user and the business
  - sort output based on closest distance
  - query database to get detailed information about each business





#### Flask

- Flask is the connection between the front end and the back end
- The job of Flask is to take a URL, figure out what the user wants to do with it, and pass it on to one of many python functions for handling
- Given user input from the front end, Flask calls backend functions to get the businesses



#### **Frontend**

- React web application
  - Responsive of user input for connection to flask and backend
  - React router for multi-page application
  - Custom components and css styling
  - React Hooks
  - Flexbox for responsive components



### **Implementation Demo**

### Conclusion

#### **Future Work**

- Database has capability to be expanded across more zip codes
- Implement more UI features
  - Add a search feature on the results page for more fluidity when changing addresses
- Set up user profiles so that users can see their past history of using our application
  - This user profile could then be used to provide suggestions
- Try to add synchronization feature to support dynamic auto-match when user location changes during walking / moving

#### **Our Main Takeaways**

- Google Design Sprint and user interviews help a lot in decision-making
- Agile development is very efficient and effective
- Discussions with mentors (especially about specific questions) are mind-opening and very helpful
- Kanban presentation helped us realize that we had too many things in progress
- Exposed to new technologies (React, JavaScript, Flask, SQLite) which was really interesting to learn about

### **Questions?**