Project Plan Presentation
Team Member Mapping Application

The Capstone Experience
Team Rocket Companies

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Functional Specifications

• Helps develop community between workers in a hybrid work environment
• Allows team members to search for others based on zip code location
• Support community building activities through events in the app
• Allows for communication between event attendees via a general chat
Design Specifications

• Google Maps as main interaction interface
• Filtering system to search for other employees
  ▪ Side menu for interests
  ▪ Search bar for location
• Markers on Google maps shows employees
  ▪ Hovering will show public information
  ▪ Direct messaging features
• Events
  ▪ Business and social events
• Web application and Android functionality
Screen Mockup: Events
Screen Mockup: Nearby Employees
Screen Mockup: Chat Feature
Screen Mockup: Profile

Profile

Name: Edwin Flores
Based: Detroit, MI
Bio: Probably at a baseball game enjoying the sun while eating great food. If not, probably eating somewhere else. These are only some of my hobbies
Company: Rocket Mortgage
Log out
Technical Specifications

- Google Maps API displayed on frontend
- Have both a front and backend – React & .NET
  - Communication between them to display data from the Sift API
  - Store necessary data with a database
- Display team member mapping with HTML, CSS, and JavaScript – React
  - Need a way for user interactions
- Cloud deployment for flexibility using AWS
  - Easier app development
    - Development for android devices to display mapping on handheld device
System Architecture

**Backend**
- mongoDB
- .NET 5.0
- Sift

**Deployment**
- Amplify Hosting

**Frontend**
- React
- Node.js
- Google Cloud Platform

**Users**
System Components

• Hardware Platforms
  ▪ Windows – Windows computers will be used to code and test the web application
  ▪ Android – Some team members have Android devices to test the app and mobile version

• Software Platforms / Technologies
  ▪ Google Cloud Platform – All the API's from google including the Maps API and Geolocation API will be managed here
  ▪ React – A JavaScript library that will create a single-Page Application taking care of the HTML, JavaScript, and CSS
  ▪ NodeJS – Use npm to install packages to help with UI and inserting the maps API
  ▪ MongoDB - Handle data
  ▪ .NET 5.0 - Backend to create Web API
  ▪ Sift API – Get employees data
  ▪ GitHub and AWS Amplify – Deploy and collaborate with GitHub, AWS Amplify loads repos to host front and backends
  ▪ Android SDK – Allow Android app
Risks

• Mapping Large Amounts of Data
  ▪ Sift API will be returning large amounts of data, and it will be taxing on the interface if we do not manage resources efficiently.
  ▪ Ensure that we are not calling the Sift API every time a user loads the map.

• Location Data Privacy
  ▪ Sensitive location information will need to be secure.
  ▪ Ensure that those creating an account are part of the Sift organization through e-mail verification and allow the user to opt out and just use zip code.

• Incorporating Chat Feature
  ▪ While currently we have both a direct message and event message part of the app planned, it may come down to only having one of these
  ▪ Use an external app such as Microsoft Teams or SMS to create group chats instead of having it in the app.
Questions?