Apartment Finder

CSCI 5828: Foundations of Software Engineering

Innovation Insurgents

Project Overview

Apartment Finder application is a user-friendly, comprehensive online platform designed to simplify the apartment hunting experience for those looking to rent in the beautiful city of Boulder, Colorado.

Features:
- Users are able to view availability and book appointments for apartment tours
- Users are able to view reviews on listed properties
- Users are able to assess a property's rating based on application conducted sentiment analysis

Team Coordination Process

- Team communication platform: Slack
- Agile development
  - Jira Board
  - 2-week sprint

Goals

- Simulate a software development experience up to par with industry with an incredible focus on learning new technologies!
- Give users a unique, more streamlined experience with apartment hunting

Risk

- Scope creep

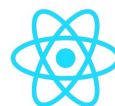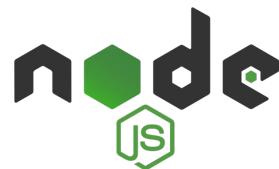| Work Distribution	
Web Server	Evan, Ishika, Lakshmi, Rithik, Shreyas
Data Collection	Shreyas
Data Analyzer	Shreyas
Front-end	Evan, Ishika, Lakshmi, Rithik
Testing	Lakshmi, Shreyas, Rithik
Deployment	Lakshmi, Shreyas

Technologies Leveraged

Planning

Development

CI/CD, Testing, and Monitoring
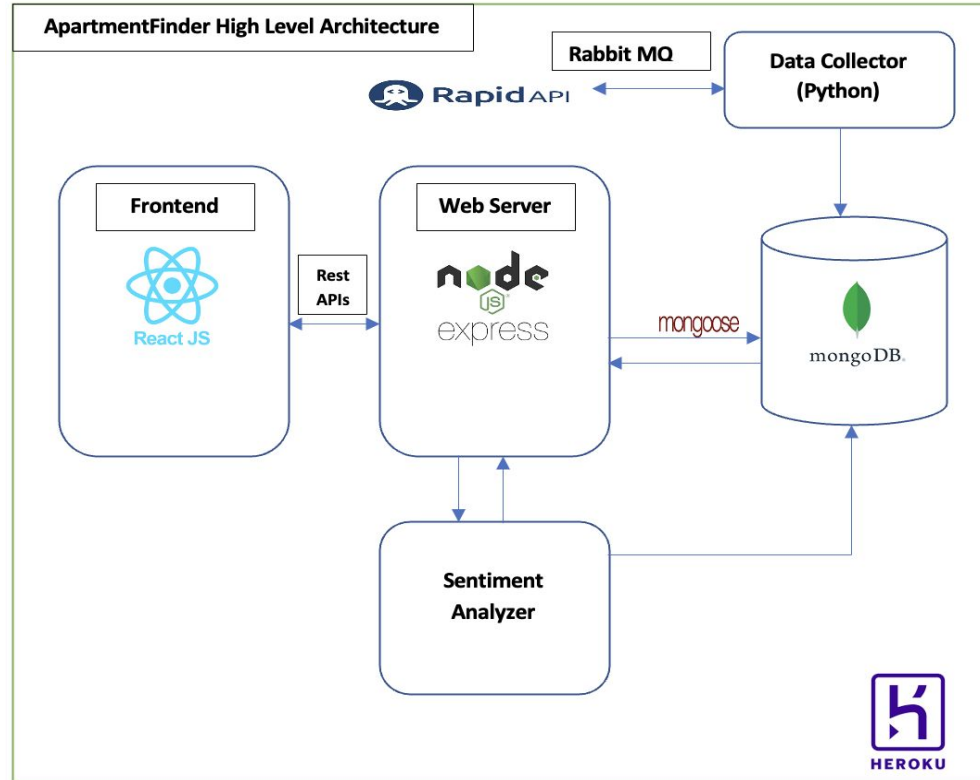
Data Storage/Messaging

React

Deployment and Design Decisions

- Product is deployed using Heroku - A cloud platform to build, deliver and monitor.
- Heroku pipeline is created for the app and integrated with Github source code that facilitates automatic build and deployment.

Design Decisions

- Started development initially with Java Spring-Apache, but switched to MERN stack to accelerate development.
- MongoDB facilitates replica servers providing high availability for our cloud development.
- Chose RabbitMQ to invoke the review analysis in the data analyzer by sending the data over the message queue instead of requesting data analysis using Rest API or grpc between Webserver and Data Analyzer.

High Level Design Architecture

Demo

Future Work to Wrap the Semester Up

- Continue to hit the rubric guidelines in terms of technology execution
- Polish UI if there is available bandwidth
- Add extended features like a user profile page
- Create cron job for Data Collection

Retrospect

What went well?

Lot's of new tech to learn

Excellent team work

What was confusing?

Figuring out work division based on skill level, bandwidth and expertise

What didn't go well?

Data Analyzer Deployment