Spring 2019 Senior Design Project

Miami-Dade County Vacancy Compliance 2.0

Student: Alex Angee, Florida International University
Mentor: Richard Roda, Miami-Dade County
Instructor: Dr. Masoud Sadjadi, Florida International University

FIU Engineering & Computing
School of Computing & Information Sciences

Problem

- Miami-Dade County offers housing for those in need. They create and maintain all their records and keep them up-to-date.
- The Federal government creates and maintains their own copies of the same housing unit.
- An inconsistency in data could lead to an unwarranted deployment of personnel and/or assigning the same unit to a tenant.

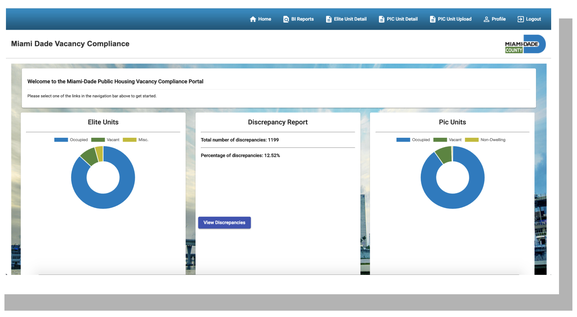
Solution

- Miami-Dade County Vacany Compliance offers a real-time unit tracker along with an up-to-date discrepancy tool.
- This tool assists to reconcile both collections of records and verifies their accuracy.
- Additionally, this tool provides tables that can be easily filtered by search criteria.

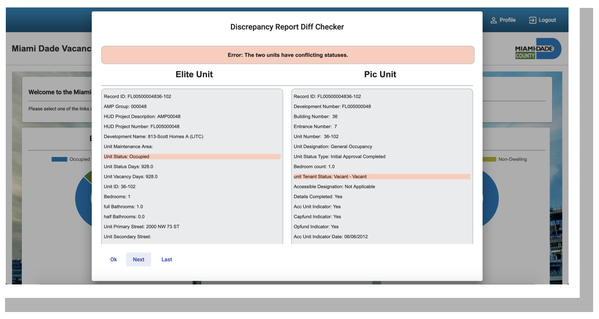
Current System

- **Provides real-time data and metrics** on all housing units in Miami-Dade County.
- Offers an **inside look** on units mark as discrepant.
- Grants users the **ability to search and filter** through units providing an ease-of-access when viewing thousands of records.

Mockups



The executive dashboard is designed to give an up-to-date, high-level overview of the metrics across Miami-Dade County.

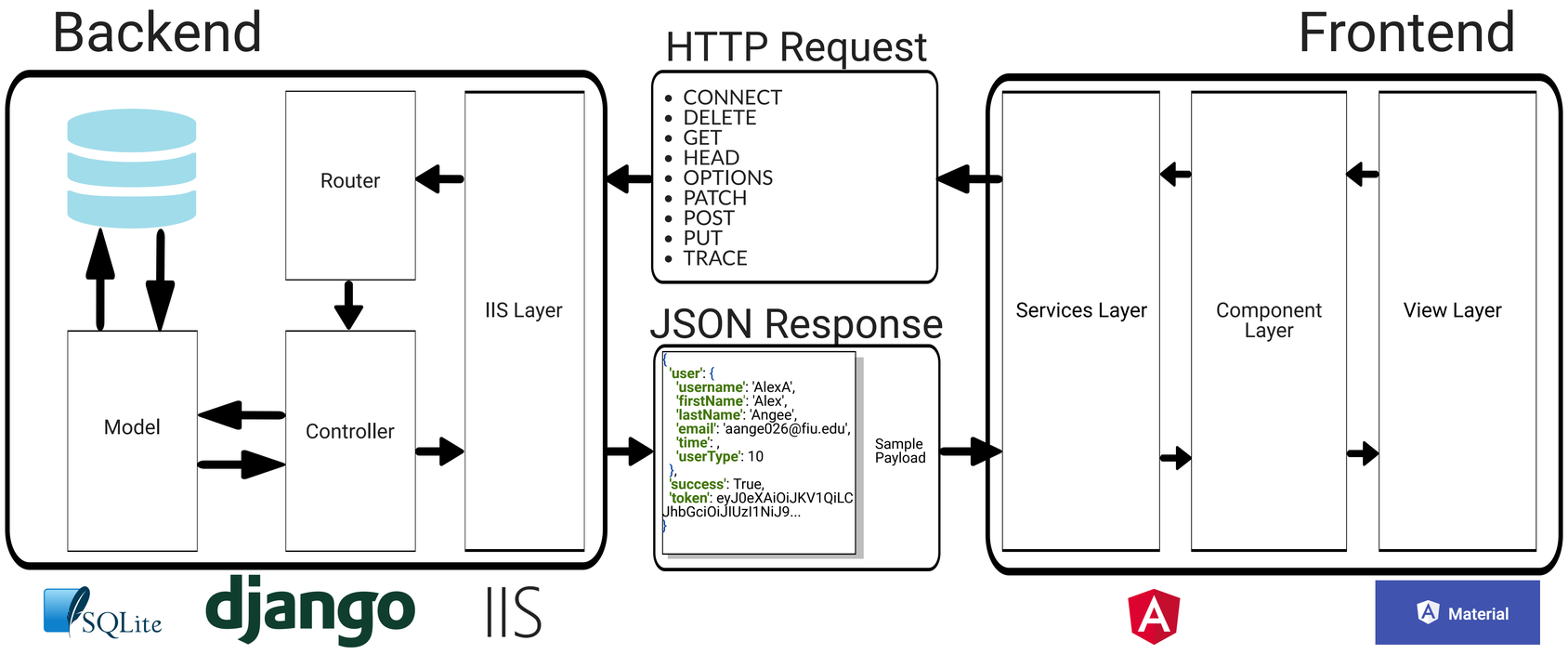


The discrepancy reporting tool is designed to give a live, side-by-side look at units with the same Record ID across different systems.

My contributions

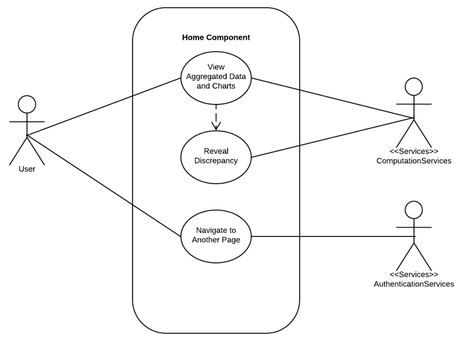
- Token Authentication via Json Web Token (JWT)
- Converted back-end api to send Json Response
- User registration via back-end api
- Live metrics on executive dashboard
- Discrepancy reporting tool

System Design

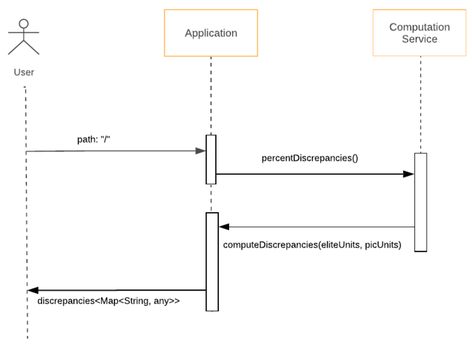


Discrepancy Tool Diagrams

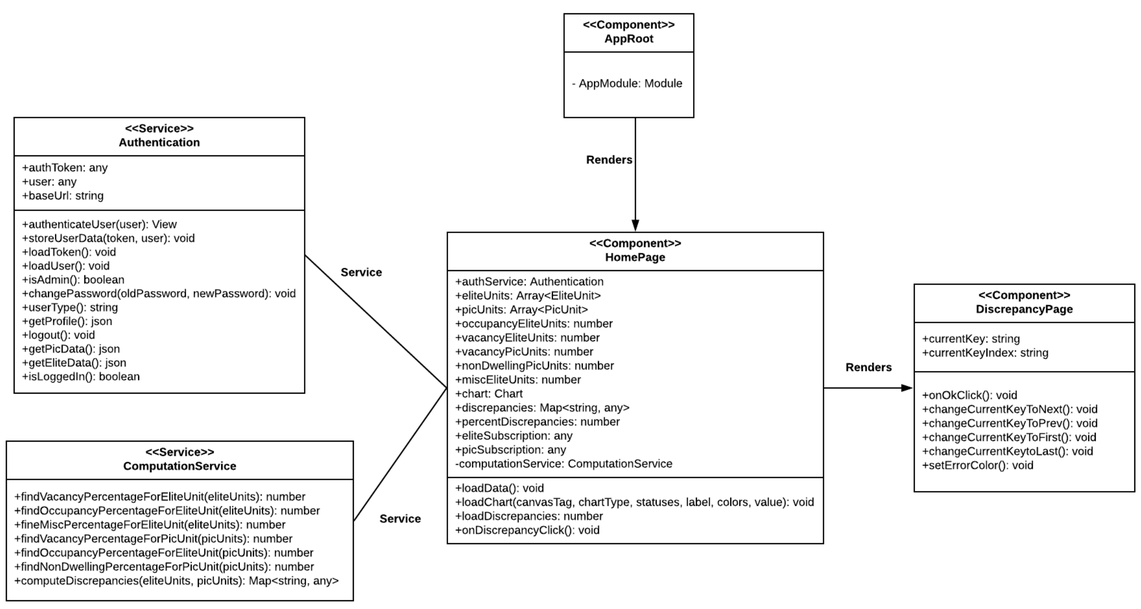
Use Case Diagram



Sequence Diagram



Class Diagram



The diagrams shown above are representative of the flow of data, the sequence of actions taken due to user interaction, and the way classes and services interact with each other throughout the application.

Acknowledgement