System Design Document

J.U.S.T.I.C.E.

Judgment Utility Space Time Intensive Crime Evaluator

Client
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4/6/2018

JUSTICE
System Design Document

Table of Contents

1. Introduction

1.1 Purpose of This Document

The purpose of this document is to describe the design of the JUSTICE web application.

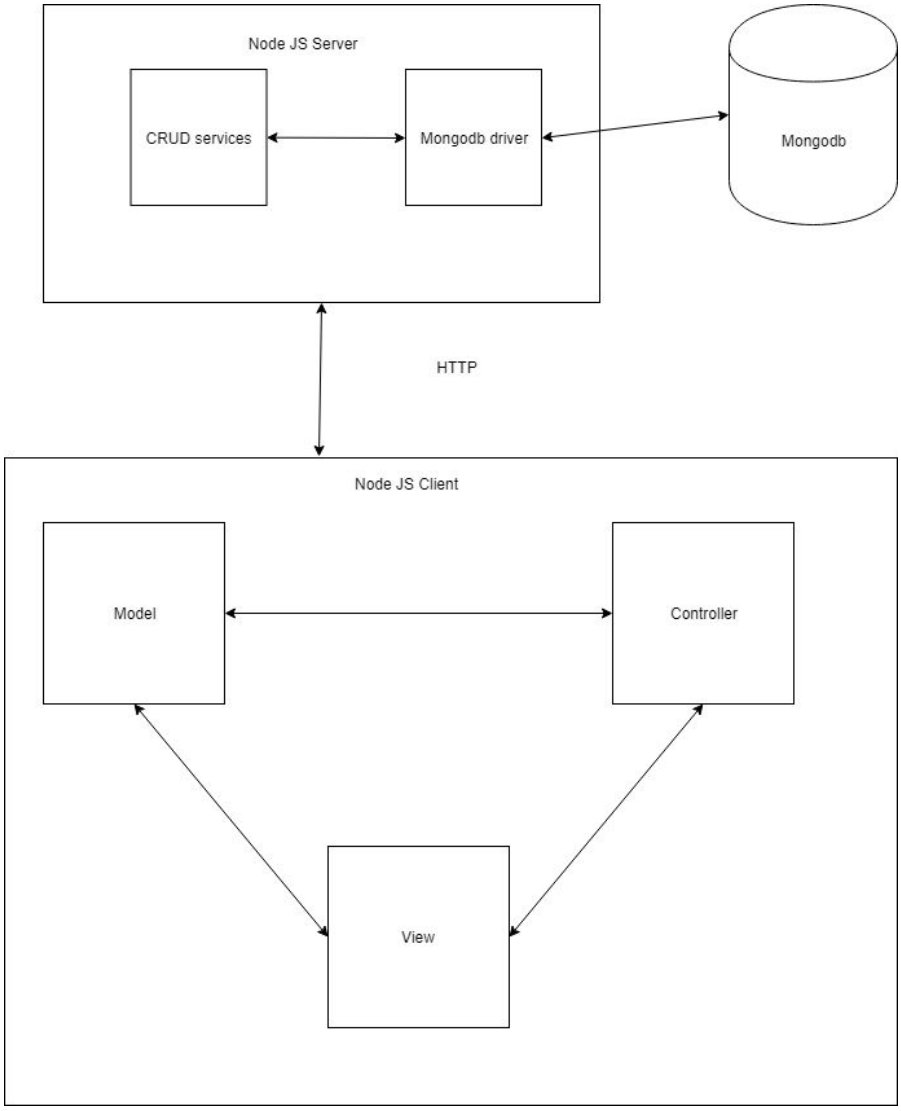
1.2 References

1. JUSTICE System Requirements

2. System Architecture

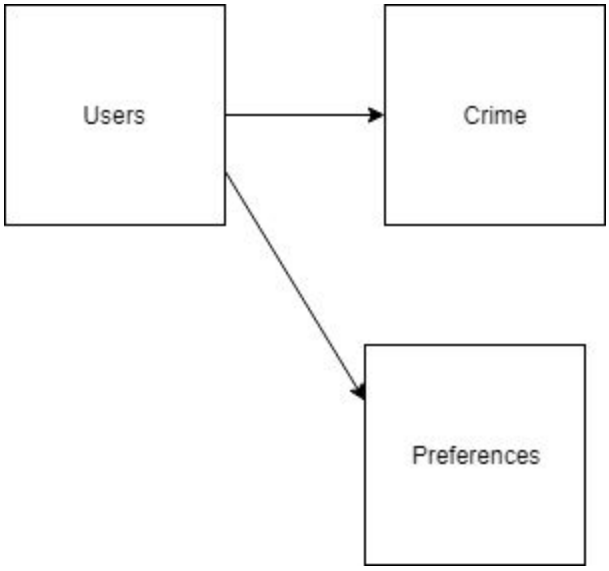
2.1 Architectural Design

J.U.S.T.I.C.E. component diagram

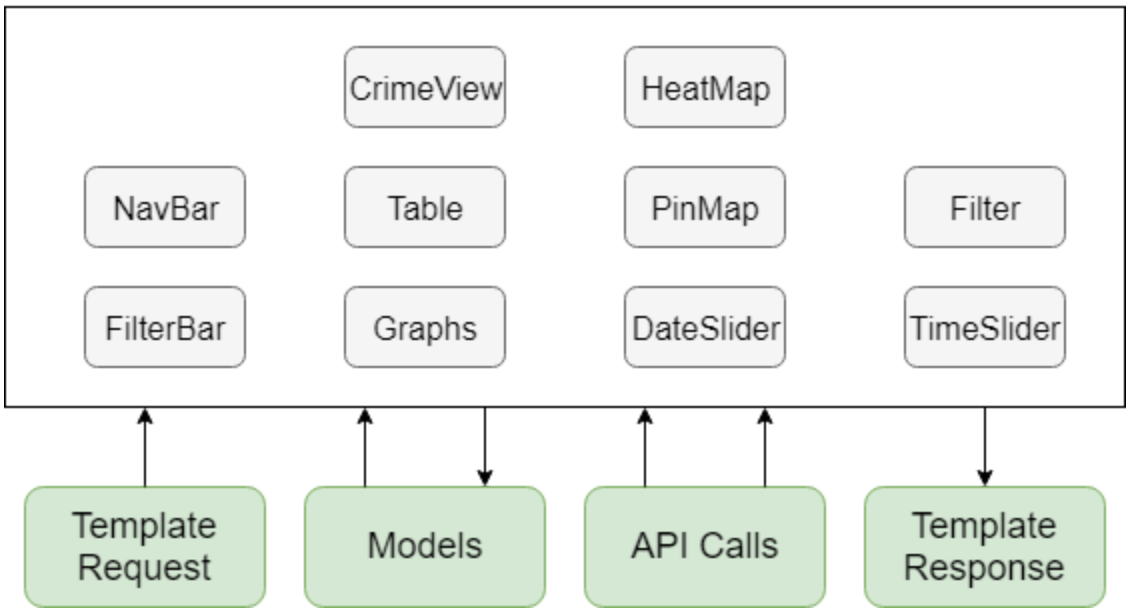


The application will run on two linux servers. One of them will host Mongodb to store the data for the application. The other will be a NodeJS server that will interface with the mongodb to send the data in a visualized form to the clients browser. NodeJS Client will be hosted on a server for the client's computer to interact with. Clients must have OS for a computer available that can run Firefox or Chrome properly to access the application.

2.2 Decomposition Description



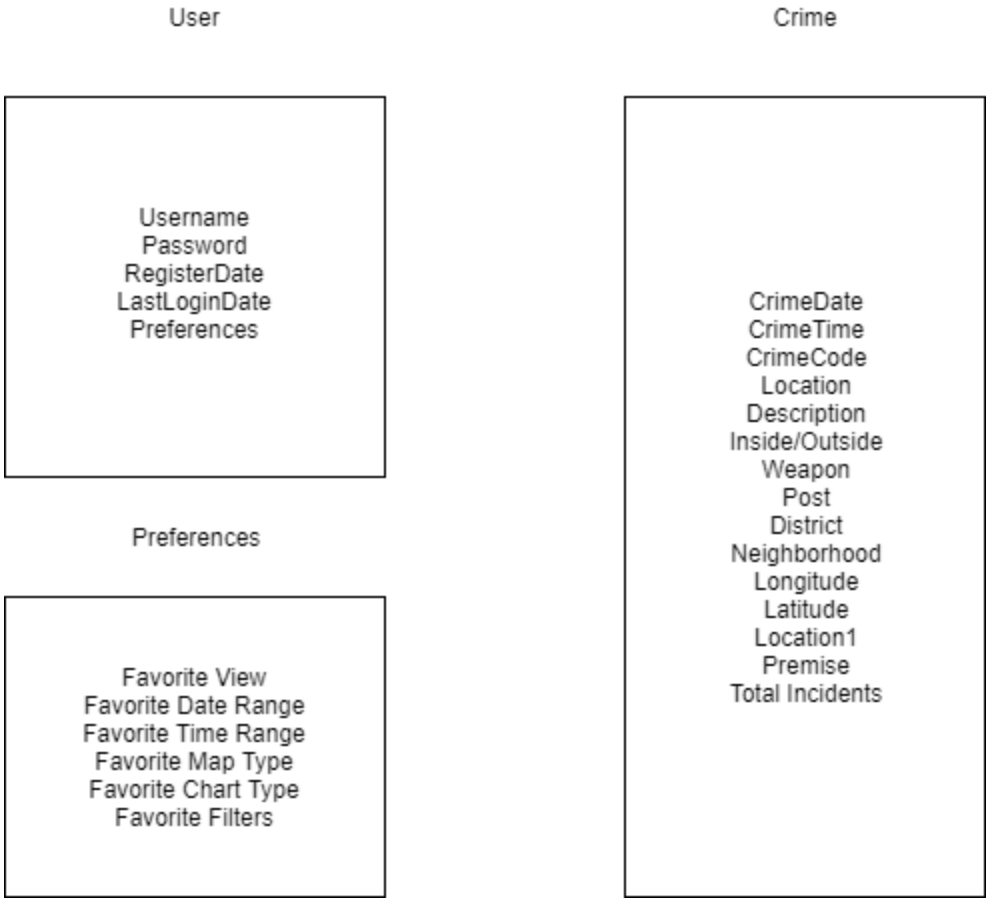
JUSTICE View Decomposition Diagram



3. **Persistent Data Design**

3.1 Database Descriptions

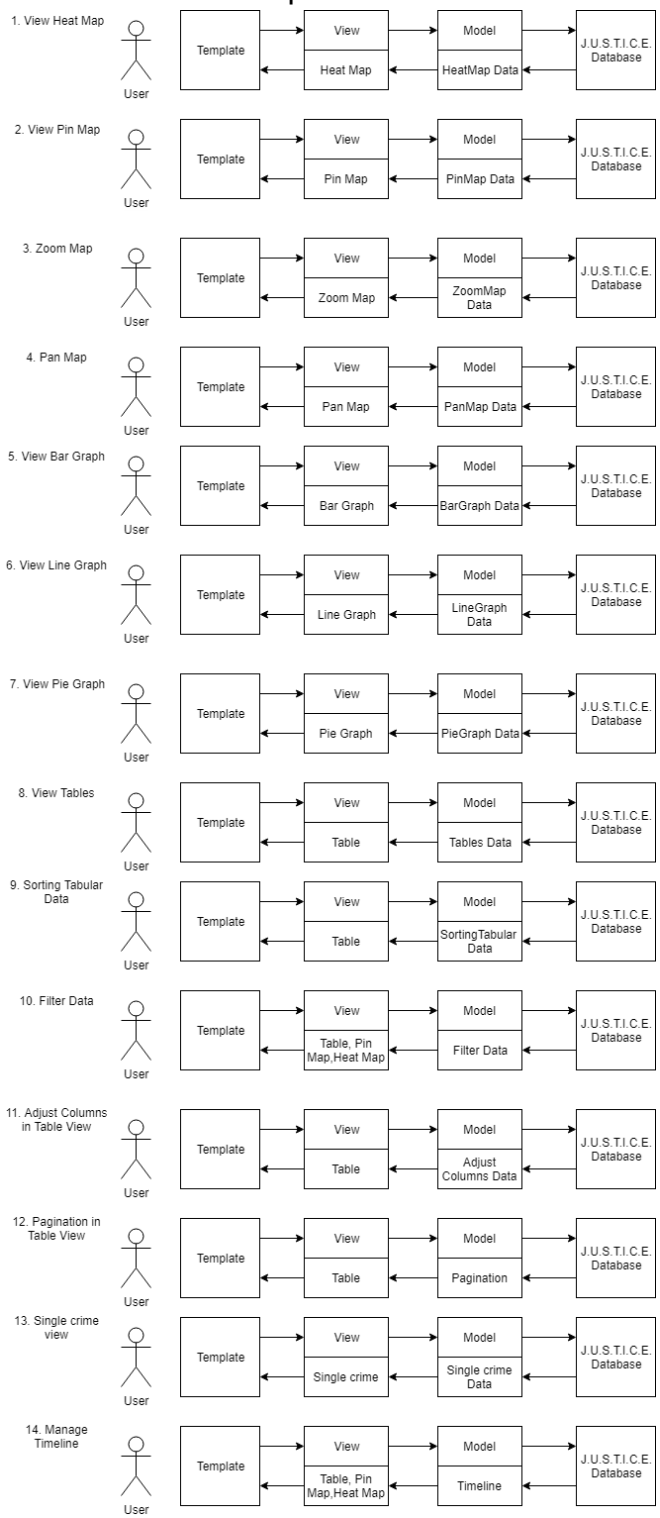
The database will be a MongoDB that will store one entity that will have CrimeCode, Location, Description, Inside/Outside, Weapon, Post, District, Neighborhood, Longitude, Latitude, Location1 (Latitude, Longitude), Premise (Type of Location). The database will filter and sort the data before sending it to the NodeJS sever where it will be sent to the users view.



4. Requirements Matrix

Please refer to the System Requirements Specification for details regarding the corresponding use cases.

Justice Requirements Matrix



Appendix A – Agreement Between Customer and Contractor

The customer agrees to a crime visualization system that allows the user to filter data in a variety of forms (maps, graphs, tables) relative to a chosen time frame. See System Requirements Specification for more information.
When future changes to this document occur a drafted new document shall be created. An electronic copy of both versions will be presented to the client for review. Upon approval, the draft will be finalized and signed off by both parties.

Client

Name _____ Date _____

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Signature

Team

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Name _____ Date _____

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Appendix B – Team Review Sign-off

This document has been collaboratively written by all members of the team. In addition, all team members have reviewed this document and agree on both the content and the format. Any disagreements or concerns are addressed in team comments below.

Team

Name _____ Date _____

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Signature

Comments

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Appendix C – Document Contributions

Gregory Mayer created the requirements matrix and wrote the information for the architectural design and database description sections. Andrew McLamb formatted the document. Nicholas Sorauf created the view decomposition diagram.