

# Administrator Manual

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

*Judgment Utility Space Time Intensive Crime Evaluator*

### **Client**

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*JUSTICE*  
Administrator Manual

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# **1. Introduction**

## **1.1 Purpose of This Document**

The purpose of this document is to act as a step-by-step guide for a system administrator to setup and install the JUSTICE application. You may want to have the Systems Requirements Document and Systems Design Document close by for quick reference.

## **1.2 References**

1. JUSTICE System Requirements
2. JUSTICE System Design Document

# **2. System Overview**

## **2.1 Background**

The JUSTICE application is a crime data visualization application. Please refer to the Systems Requirements Specification, section 1.3, for more information about the purpose of this application.

## **2.2 Hardware and Software Requirements**

The system can be run on either a Windows or Linux based operating system. We use MongoDB as our database engine. React 15.6.1 and Node JS are required for proper operations.

## 3. Administrative Procedures

The section describes how to install JUSTICE software requirements as well as the JUSTICE application itself. In addition routine and periodic administrative tasks are described below.

### 3.1 Installation

#### 3.1.1 Node JS and Node Package Manager (NPM)

Node JS and NPM are required to be installed and properly configured on the system before JUSTICE installation. NPM is installed along with Node JS. Please refer to the “Install Node JS” installation procedure at “<https://www.nodejs.org/en/download/>” for installing Node JS and NPM.

#### 3.1.2 MongoDB

MongoDB is required to be installed and properly configured on the system before JUSTICE installation.

The steps to download and install MongoDB are as follows:

**Step 1:** Create a MongoDB list file in /etc/apt/sources.list.d/ with this command:

```
sudo apt-key adv --keyserver hkp://keyserver.ubuntu.com:80 --recv  
2930ADAE8CAF5059EE73BB4B58712A2291FA4AD5
```

**Step 2:** Create source list file MongoDB

```
echo "deb http://repo.mongodb.org/apt/ubuntu xenial/mongodb-org/3.6 multiverse" | sudo tee  
/etc/apt/sources.list.d/mongodb-org-3.6.list
```

**Step 3:** Update the repository

```
sudo apt-get update
```

**Step 4:** Install MongoDB

```
sudo apt-get install -y mongodb-org
```

To add MongoDB as a service to be started at boot time:

```
sudo systemctl enable mongod.service
```

## **Step 5: Populate the Database**

Run “FetchData.js”. This needs to be run periodically.

### **3.1.3 React**

React is required to be installed and properly configured on the system before JUSTICE installation. In order to install React run the command “npm install react” in whatever shell you’re using.

### **3.1.4 JUSTICE Application**

Download our application files from Github and place them wherever you wish to store the application. Configure the crimes.js changing the line “mongoose.connect()” to contain the proper connection string for your mongo database. In the react-backend folder run “npm install”. Then inside of the client folder, run the command “npm install”. In order to start the application three components need to be running. The first is the database. The second is the backend which can be done by running node on the “www” file inside the of the “bin” folder in “react-backend”. The client side of the application can be run using “npm run build” followed by the command “serve -s build --port 80”. The application requires that the proper servers have the firewall open on port 3001 (react-backend server), 80 (client server), as well as the port for the database. The application can also be hosted on a single server if required.

## **3.2 Routine Tasks**

An administrator will have to run the “FetchData.js” script to periodically update the database with the latest data from the Open Baltimore API. This can be set to a cron job to have it automated.

## **3.3 User Support**

For additional support please contact us via email.

Gregory Mayer- gmayer1@umbc.edu

Andrew McLamb- andrew56@umbc.edu

Arjun Saini- ix56539@umbc.edu

Nicholas Sorauf- nsorauf1@umbc.edu

## **4. Troubleshooting**

In the event of an error or bug troubleshooting is necessary. We have outlined common issues that may arise during use of the JUSTICE application.

### **4.1 Dealing with Error Messages and Failures**

If you encounter any errors feel free to contact us using the above emails.

### **4.2 Known Bugs and Limitations**

We currently do not have any known bugs.

## Appendix A – 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

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## **Appendix B – Document Contributions**

This document was formatted by Andrew McLamb. Arjun Saini wrote the installation section for MongoDB. Nicholas Sorauf and Andrew McLamb worked together to write the majority of the document.