

Canada Crime Watch Dashboard Setup Guide

December 12, 2024

1 Project Structure

The project should have the following structure:

```
1 Canada_Crime_Watch/  
2     app.R  
3     project_report.pdf  
4     data/  
5         canada_provinces.rds  
6         processed/  
7             crime_data.csv
```

2 Required R Libraries

Before running the application, ensure you have the following R packages installed:

```
1 install.packages(c(  
2     "shiny",  
3     "shinydashboard",  
4     "data.table",  
5     "plotly",  
6     "leaflet",  
7     "DT",  
8     "scales",  
9     "viridis",  
10    "leaflet.extras",  
11    "shinycssloaders",  
12    "sf",  
13    "rnaturalearth"  
14 ))
```

3 Setup Steps

3.1 Download Project Files

- Download all project files
- Maintain the exact folder structure as shown above

3.2 Set Working Directory

- Open R/RStudio
- Set your working directory to the project folder:

```
1 setwd("path/to/Canada_Crime_Watch")
```

- Alternatively, open the project folder in RStudio and it will set the working directory automatically

3.3 Run the Application

- Open `app.R` in RStudio
- Click the 'Run App' button in RStudio
- Or execute the following command in R console:

```
1 shiny::runApp("app.R")
```

3.4 If you want to clean data locally

- Download the dataset from Table: 35-10-0177-01
- Unzip the file and copy the path to raw data file
- Open `prepare_crime_data.R` and paste the path at marked area
- Run the code and you will get new `crime_data.csv`
- Replace this file in the app file directory
- Run the `app.R`

4 Troubleshooting

- If you encounter any package-related errors, ensure all required packages are installed
- Verify that the data files are in their correct locations
- Check that your working directory is set correctly using `getwd()`
- Ensure you have sufficient permissions to read the data files

5 System Requirements

- R version 4.0.0 or higher
- At least 4GB of RAM
- Modern web browser (Chrome, Firefox, or Edge recommended)