RDA_PROJECT

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PROBLEM STATEMENT:

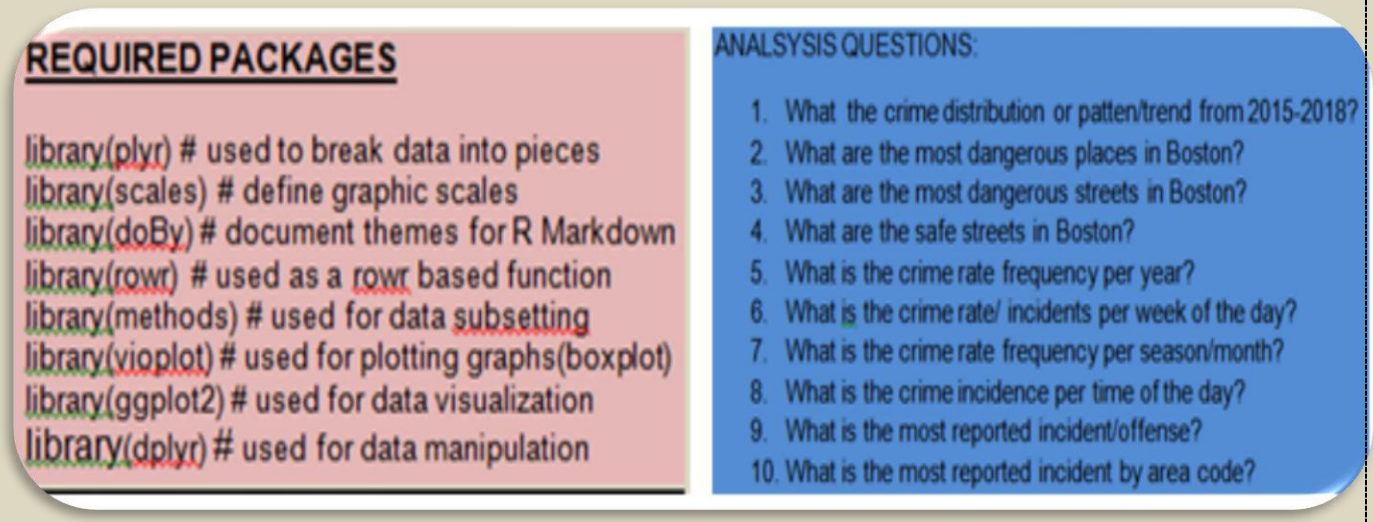
Crime control is an important responsibility/duty of any government, having an efficient system with the most important function being to suppress and control crime to ensure that society is safe and there is public order.

BACKGROUND

- The purpose of this project is to perform data analysis and visualization for the Boston City crime data set. The analysis was carried out for Boston City using data recorded for a period of 4 years (2005-2018). We used R to perform data analysis and visualization to explore and identify crime pattern, and uncover insights to understand how people commit different crimes

OBEJECTIVE

- Analyze crime pattern in Boston
- Performing an analysis of Boston Crime data will be useful to law enforcement agents on how to deploy resources and to identify and apprehend suspects
- Help US residence make well informed decisions when relocating to Boston city.
- Provide useful information to international immigrants about the safety of Boston city



DATA PREPARATION

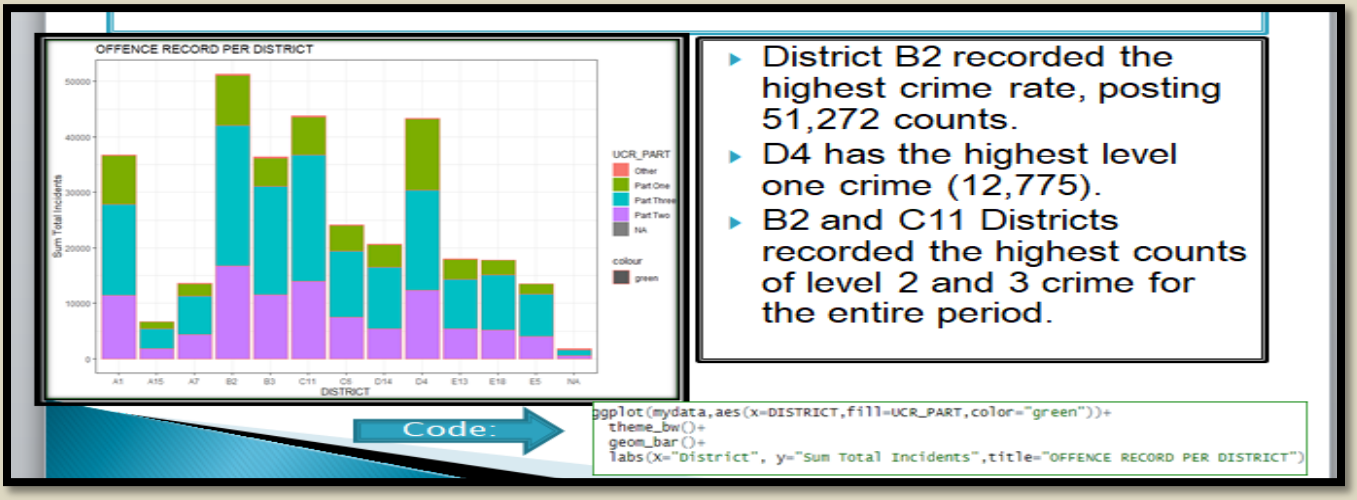
Read excel file code was used to read data from kaggle.com open data set (linked to the Government of Boston's website) and save it as variable data crime,, The datasets is from August 2015 till today December 21st 2018. This report is based on crimes reported to, and arrests made by, the Boston Police Department within the City of Boston.

Data Source

The data set was obtained from Crime incident reports are provided by Boston Police Department (BPD) to document the initial details surrounding an incident to which BPD officers respond. This is a dataset containing records from the new crime incident report system, which includes a reduced set of fields focused on capturing the type of incident as well as when and where it occurred. Records in the new system begin in year of 2015.

Link to Dataset: *https://data.boston.gov/dataset/crime-incident-reports-august-2015-to-date-source-new-system*

Sample Data Analysis (Analysis of Crime rate per each Boston District by Crime Level)



SUMMARY FINDINGS

Conclusions: As deduced from the analysis on the Boston Crime data set in terms of crime occurrence , distribution and time pattern below is the summary findings:

1. Most dangerous places/districts in Boston is B2,D4 C11,
2. Most dangerous streets in Boston is Washington St , Blue Av , Hyde Park, Massachusetts Av, Harrison Av etc
3. Highest number of crimes reported in Summer (June to Sep)
4. Days that crime is high Wednesdays and Fridays
5. Time of the day most likely to get more crime reports is from 11am to 7pm.

Recommendations: This Analysis helps the Boston Police act accordingly and try to reduce the crimes frequently occurring in the city of Boston by knowing the times, dates, places and seasons to increase field focus.

It also further helps them to know which district to add more reinforcement to try and curb crime. By looking at frequency of Incidents by District: B2, D4 and C11 have the highest cumulative incidents across the analysis period.

The analysis helps residence and new residence to know which area are safe, streets to avoid and at what time of the day. It further helps to choose areas to stay in Boston by avoiding the dangerous cities as depicted by the Analysis.

Acknowledgements:

- Boston Police Department (https://www.boston.gov/departments/police)
- Lecture Notes (R Programming by J. Tareq)