1 Introduction

This visualisation shows different types of crime that happened in various parts of London boroughs during 2017-2019. The dataset was obtained from the London Government website delivered an extensive amount of various crime. Although, the range of provided data was of 24 months it has still allowed us to explore many crime events.

2 Description

The task was to come up with a novel visualisation and visualise the data that has not yet been visualised or data has not been visualised in a way that you visualize it.

The following data visualisation was made in Processing 3.5.3, the desktop version that uses Java as a programming language.

For running the program, simply run in Processing. giCentre utilities and geoMap libraries are needed to run it. You can obtain them from http://www.gicentre.net/. As you run the file you will be able to explore the crime statistics of different boroughs of London based on the data from 2017/03-2019/02. You can hover the mouse over the map to see the location and get the total criminal count committed in the two years. You can also click on the location which would direct you to another page where you can see the number of crime types with their count and graphs that have been committed in that location in last two years. Each division has a different colour which depends on the category of the crime they belong to.

The data was obtained from London Government website. I then divided that data into sub-files to get the data for each Major Crime category at each location separately. This data counts the number of crimes at three different geographic levels of London (borough, ward, LSOA) per month, according to crime type. Data is available in two files for each level of geography - the most up to date data covering the last available 24 months only and one covering all historic full calendar years. However I have considered data only for borough and a combined number of crimes of two years.

There are 11 major types of crime that were considered are: Arson and Criminal Damage (including Arson / Criminal Damage), Burglary (including Burglary - Business and Community / Burglary - Residential), Drug Offences (including Drug Trafficking / Possession of Drugs), Miscellaneous Crimes Against society (including Absconding from Lawful Custody / Bail Offences / Bigamy etc.), Possession of Weapons (including Other Firearm Offences / Possession of Firearm with Intent etc.), Public Order Offences(including Other Offences Against the State, or Public Order / Public Fear Alarm or Distress etc.), Robbery (including Robbery of Business Property / Robbery of Personal Property), Sexual Offences(including Other Sexual Offences / Rape), Theft(including Bicycle Theft / Other Theft / Shoplifting / Theft from Person), Vehicle Offences(including Aggravated Vehicle Taking / Interfering with a Motor Vehicle etc.), Violence Against the Person(including Homicide / Violence with Injury / Violence without Injury)

To visualise the data I decided to use the geoMap libraries so that I can visualise the data on the basis of the locations. I initially tried to visualise the data on the basis of both MajorCategories and MinorCategories of data where I could show how the crime has increased or decreased in locations from month to month and also show the difference between the criminal counts from one year to another to determine which locations have become safe neighbourhoods and which neighbourhoods are becoming unsafe. When I was unable to do so I decided to visualise only the major categories.

Strengths would be:

- Able to show the total criminal count of each location in last two years
- Also able to show which kind of crime is more common or happens more often than others.
- Also able to show the total count of each crime.

Weaknesses would be like above mentioned:

- Unable to show the crime increase/decrease from one month to another or from one year to another
- Unable to show the neighbourhoods that are becoming safer or dangerous

After creating the visualisation I save them using the saveFrame() function in the different folder.

Github Link: https://github.com/AniketAg/data-visualisation-final-project

References

[1] giCentre utilities and geoMap have been used to produce visualisations (http://www.gicentre.net/)

[2] Recorded Crime: Geographic Breakdown: https://data.london.gov.uk/dataset/recorded_crime_summary

[3] Learning how to use geoMap and giCentreUtils: https://www.gicentre.net/geomap/using