**NUPD (Northeastern Police Department Crime Data Analysis)**

**Group 01**

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**Introduction**

The Investigative and Special Operations Unit of the Northeastern Police Department is responsible for keeping the campus safe and secure. It also provides comprehensive investigative and crime prevention services to the whole department and university community. Also, the members of Northeastern university police are assigned to only patrol throughout the campus. NUPD always stay in touch with the faculty, students, and staff to foster good working relationships and to reduce crime on the campus.

**Problem Statement**

This dashboard will help the Northeastern Police Department to allocate resources in a more strategic way and help them to mitigate incidents happening across our university.

**Data Description**

This dataset reflects reported incidents of crime that occurred at Northeastern University from 2021 to the present, minus the most recent seven days. Data is extracted from the Northeastern Police Department's website. This data includes unverified reports supplied to the Police Department. Therefore, the Northeastern Police Department does not guarantee (either expressed or implied) the accuracy, completeness, timeliness, or correct sequencing of the information and the information should not be used for comparison purposes over time.

Table, Excel

Description automatically generated

Dataset dimensions: 11 Fields with 2012 Rows.

**Acknowledgments**

<https://nupd.northeastern.edu/>

**Dataset Source: Northeastern Police Department**

This dataset is publicly available for anyone to use under the following terms provided by the

Dataset Source — <https://nupd.northeastern.edu/>

**Inspiration**

What are the major incidents happening across our university?

What categories of crime exhibited the greatest year-over-year in the increase between 2015 and 2016?

Which month generally has the greatest number of incidents?

Which places across our university can be described as hotspots?

**Methodology**

NUPD reports the incident in a generalized format

**Design Process**

In this design process first, we considered the NUPD crimes data. This dataset is covered with different fields like Incident type, time occurred, time reported, Location etc. As we have collected the data in a pdf format to convert the data into excel, we used python by installing libraries like

**pip install tablua- py**

**pip install pandas**

Later we have extracted data from pdf to excel. Most part of the data is cleaned in excel by changing the time from minutes to hours and by adding extra columns in tableau by using calculation field. Also, cleaned and processed the data using python.

**Insights**

* By the Month vs Count of Incident type graph, we can understand the number of incidents happened in that month as user can see both 2021, 2022 years data of each month.
* In the Heat Map we can see the most affected areas where the crimes happened within the Northeastern University and the type of incident happened in that location by taking Boston location.
* The count of incidents happened in a weekday and weekends from Monday to Sunday as user can check the type of incident happened and the count of that incident type.
* By the table showing weekday vs hours we can analyze the count of incidents happened in that time and the day of the incident occurred in the Northeastern University or nearby university as the time is given in 24hrs format.
* The Heat map shows the different type of incidents and the count of incident happened in 2021 and 2022. Investigate Person, Proctor Sign in violation and Investigate Premises are the highest number of cases reported in the years 2021 and 2022.
* The Neighbourhood location analysis shows the incident type happened location wise and the number of incidents happened in that location. Most of crimes happened in Columbus Ave during nights which is near to the NUPD, so it is easy for the police to check the place often.
* User can check the number of incidents happened in the year and the month as per the month and year. As it will be easy for the people to get the information about the number of crimes took place in the Northeastern University in the years 2021 and 2022 present day.

From all these insights we can tell that the Text Mining and Analysis can be used further to analyze more about the crimes happening inside the university. Also, each incident type should be generalized and should be in a separate column where specific location can be mentioned referring to the dataset.

**References**

[**https://dashboard.cityofboston.gov/t/Guest\_Access\_Enabled/views/ShotsFiredDashboard\_16244869752910/ShotsFiredDashboard?:showAppBanner=false&:display\_count=n&:showVizHome=n&:origin=viz\_share\_link&:isGuestRedirectFromVizportal=y&:embed=y**](https://dashboard.cityofboston.gov/t/Guest_Access_Enabled/views/ShotsFiredDashboard_16244869752910/ShotsFiredDashboard?:showAppBanner=false&:display_count=n&:showVizHome=n&:origin=viz_share_link&:isGuestRedirectFromVizportal=y&:embed=y)