**PART-2**

1. Time-Based Analysis
   1. Number of Arrests by Day, Week, Month, Quarter and Year:

Observation:

* Arrests don't significantly increase or decrease from quarter to quarter.
* Weekly Trends: The number of arrests varies noticeably each week, which may indicate seasonal patterns or different enforcement.
* Monthly Trends: Toward the end of the year, arrests appear to be slightly down, perhaps as a result of the weather or the holidays.
* Yearly Trend: According to the data, the number of arrests remains constant from year to year, suggesting stable crime rates.

Insights:

* With just slight modifications at the end-of-year holidays, law enforcement resource allocation can stay constant throughout the year.
* Weekly variations point to possible seasonal occurrences or variables affecting crime trends.
  1. Peak Days and Months for Arrests:

Observation:

* Peak Days: Toward the end of each month, especially on weekends, the most arrests take place.
* Peak Months: March and June have the greatest arrest rates, which may be due to seasonal reasons or public events.

Insights:

* Crime prevention may be aided by increased police presence on the final weekend of each month.
* Events or public gatherings scheduled strategically for March and June could lessen rises in violence.

1. Crime Patterns & Trends
   1. Top 5 Most Frequently Occurring Crimes:

Observation:

* The top 5 most frequent crimes are:
  + Assault 3rd Degree
  + Petit Larceny (from open areas)
  + Assault 2nd Degree (Unclassified)
  + Traffic Unclassified Misdemeanor
  + Theft of Services (Unclassified)
* The highest rate of 3rd degree assault indicates that minor physical altercations are common.

Insights:

* Programs in the community that deal with anger management and conflict resolution may be able to lower the number of assaults.
* Petty thievery may be reduced by improved public safety measures, especially in open spaces.
  1. Crimes Increasing or Decreasing Over Time:

Observation:

* Increasing Trends: A steady rise in larceny (petit) from open spaces suggests an increase in small-time thefts.
* Decreasing Trends: There is a downward trend in traffic unclassified misdemeanors and theft of services, which may be the result of shifting

police priorities.

Insights:

* The growing trend of petty thievery may be stopped by more surveillance in public areas.
* Resources from dwindling categories should be reallocated to growing crime types.

1. Geographic Analysis
   1. Distribution of Felony vs. Misdemeanor Arrests by Precinct:

Observation:

* In most precincts, misdemeanors are more common than felonies.
* A higher percentage of felony arrests in some precincts may be a sign of high-crime areas.

Insights:

* Strategic crime reduction initiatives should focus on precincts with high felony rates.
* In regions where misdemeanors predominate, more community policing may be able to stop crime from getting worse.
  1. Borough with the Highest Number of Arrests:

Observation:

* The city with the most arrests is Brooklyn (K), closely followed by Manhattan (M).
* Arrests in other boroughs are distributed quite evenly.

Insights:

* Targeted community involvement and law enforcement efforts are needed in Brooklyn and Manhattan.
* In certain boroughs, data-driven policing techniques, such as hotspot analysis, could be used.

1. Demographic Analysis of Arrests
   1. Distribution of Arrestees by Age, Race and Gender:

Observation:

* Age Group: The 25–44 age group accounts for the majority of arrests, followed by the 18–24 age group.
* Race: Black and white Hispanic individuals have the greatest arrest rates.
* Gender: Across all crime categories, there are far more male arrestees than females.

Insight:

* Crime rates could be decreased by targeted social activities aimed at the 18–44 age range.
* It is important to create gender-specific intervention plans, especially for young men.
* Programs for socioeconomic development and community involvement may aid in resolving racial inequities.

1. Predictive & Preventive Insights
   1. High-Crime Areas Based on Historical Trends:

Observation:

* In Brooklyn and Manhattan, certain precincts are consistently associated with high crime rates.
* The majority of crime hotspots are found in areas with a lot of nightlife and commerce.

Insight:

* For proactive crime prevention, predictive police models could be implemented in areas with a high crime rate.
* It is advised to work with nearby companies to improve security and surveillance.