Title:
Crime Trends Analysis in Lynchburg, VA (2024)

Objective:
Identify crime patterns and high-incident areas to support data-driven decision-making in public safety.

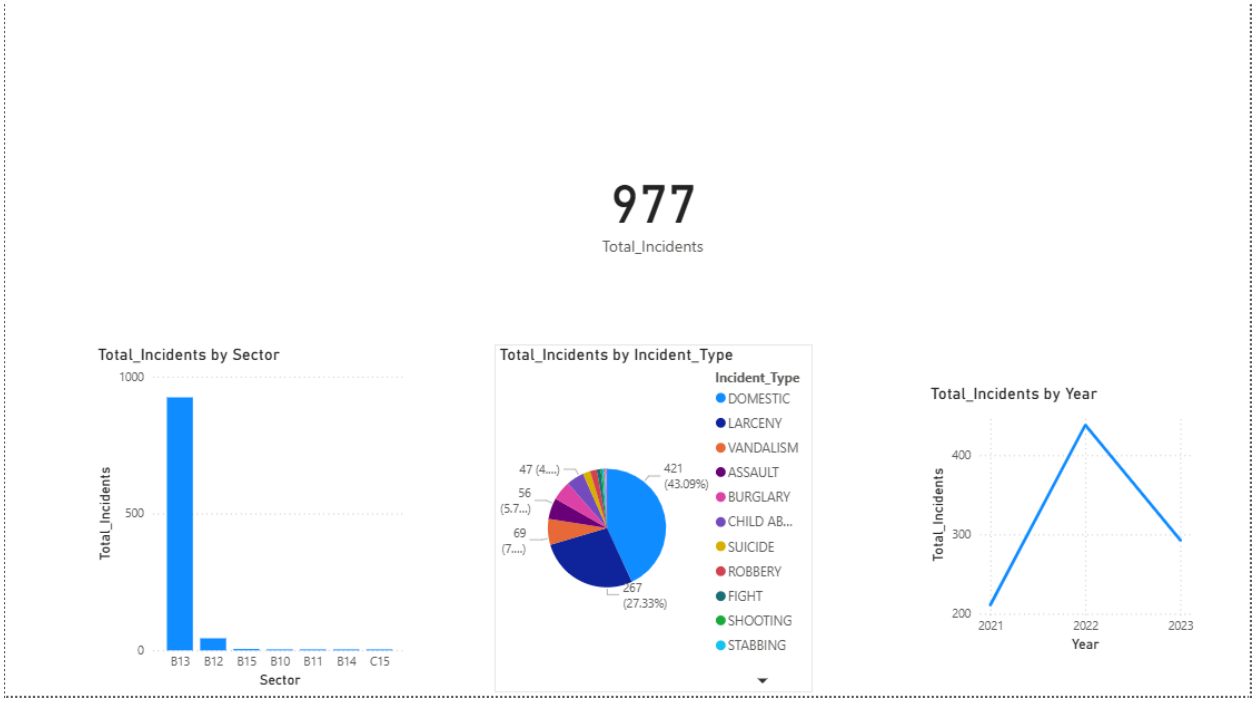
Tools:
Microsoft SQL Server Management, Power BI, Excel

Process:

- Imported and explored the `[dbo].[public_safety_20240318]` dataset (977 incidents) in SQL Server.
- Cleaned and standardized data (handled NULLs, formatted dates).
- Performed descriptive analysis on offense types, districts, and temporal patterns.

```sql
CREATE DATABASE CrimeAnalysis;
GO
USE CrimeAnalysis
GO

USE CrimeAnalysis;
SELECT COUNT(*) FROM [dbo].[public_safety_20240318];

SELECT Incident_Type, COUNT(*) AS total_incidents
FROM [dbo].[public_safety_20240318]
GROUP BY Incident_Type
ORDER BY total_incidents DESC;

SELECT YEAR(Incident_Date_Time) AS Year, COUNT(*) AS total_incidents
FROM [dbo].[public_safety_20240318]
GROUP BY YEAR(Incident_Date_Time)
ORDER BY Year;

```

- Created a Power BI dashboard to visualize trends, top offenses, and incident distribution by district.



Key Findings:

- Total of 977 incidents recorded in 2024.
- Top 4 offense types were Domestic, Larceny, Vandalism, and Assault, being the cause for over 80% of total crimes
- Districts with highest incidents identified via stacked bar chart, almost 95% of crimes happening in just one sector
- Incidents peaked in specific months, showing seasonal trends in crime patterns.

Takeaway:
Demonstrated ability to import, clean, analyze, and visualize real-world data using SQL Server and Power BI, producing clear, actionable insights suitable for reporting and decision-making.