CRIME IN INDIA

Crime in Indian Cities (2020-2024)

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CONTENT-

INTRODUCTION-

This report examines a comprehensive dataset of criminal activities across multiple Indian cities from 2020 to 2024. The data details crime types, timing, weapon use, victim profiles, and police deployment, covering offenses from identity theft to homicide. It also tracks case closure rates, offering valuable insights for understanding crime patterns and improving public safety strategies. The Project was conducted with Power BI.

DATA DESCRIPTION-

- **Source:** Indian Crimes Dataset → Kaggle → Licence
- **Time Frame:** 2020-2024
- **Size:** 40,000+
- **Variables:** Crime type, date/time, weapon used, victim demographics, police deployment, case status

DATA PREPARATION (ETL Process)-

- Extracted data from Kaggle and loaded it to Power BI.
- Initially, there was an issue with the 'Date of occurrence' column because it was in a different format. Using Power BI's Transform tab, I rectified the errors by applying the appropriate Locale to change the language/region.
- Extracted date from "Date Reported" and added "Time Reported".
- Extracted the date in "Date of Occurrence" as there was already a "Time of occurrence" column.
- In the "Victim Gender" column, convert M to Male and F to Female, and kept "X" as is.
- There were some anomalies in the crime domain, e.g. Homicide was in other crimes rather than violent crimes, so rectified those by adding a calculated column using DAX.

```
Crime Domain New =
SWITCH(
    'India Crime'[Crime Description],
    "IDENTITY THEFT", "Other Crime",
     "HOMICIDE", "Violent Crime",
     "KIDNAPPING", "Violent Crime",
     'India Crime'[Crime Domain])
```

- Extracted Months and Years from different dates.

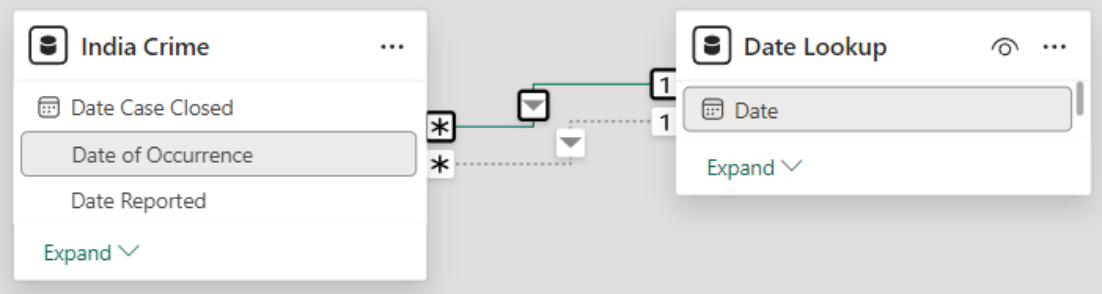
EXPLORATORY DATA ANALYSIS:

- Initially there was issue with visualization as there were gaps between dates. Using DAX added a new table – "Date Lookup":

```
Date Lookup =
ADDCOLUMNS (
    CALENDAR (DATE(2020,1,1), DATE(2025,12,31)),
    "Year", YEAR([Date]),
    "Month Number", MONTH([Date]),
    "Month Name", FORMAT([Date], "MMMM"),
    "Year-Month", FORMAT([Date], "YYYY-MM")
)
```

Date	Year	Month Number	Month Name	Year-Month	Start of Month
01-01-2020	2020	1	January	2020-01	01-01-2020
02-01-2020	2020	1	January	2020-01	01-01-2020
03-01-2020	2020	1	January	2020-01	01-01-2020
04-01-2020	2020	1	January	2020-01	01-01-2020
05-01-2020	2020	1	January	2020-01	01-01-2020

And created a relationship with the original Crime table.



- Using DAX created Measures.
- Total Crimes committed:

```
Total Crimes =
COUNT('India Crime'[Report Number])
```

- Last Month Crimes:

```
Last Month Crimes =
CALCULATE(
    [Total Crimes],
    DATEADD(
        'Date Lookup'[Date], -1, MONTH
    )
)
```

- Month on Month Crime Percentage Change:

```
MoM Crime % Change =
DIVIDE([Total Crimes] - [Last Month Crimes], [Last Month Crimes])
```

- Unsolved Crimes:

```
Unsolved Crimes =
COUNTBLANK('India Crime'[Date Case Closed])
```

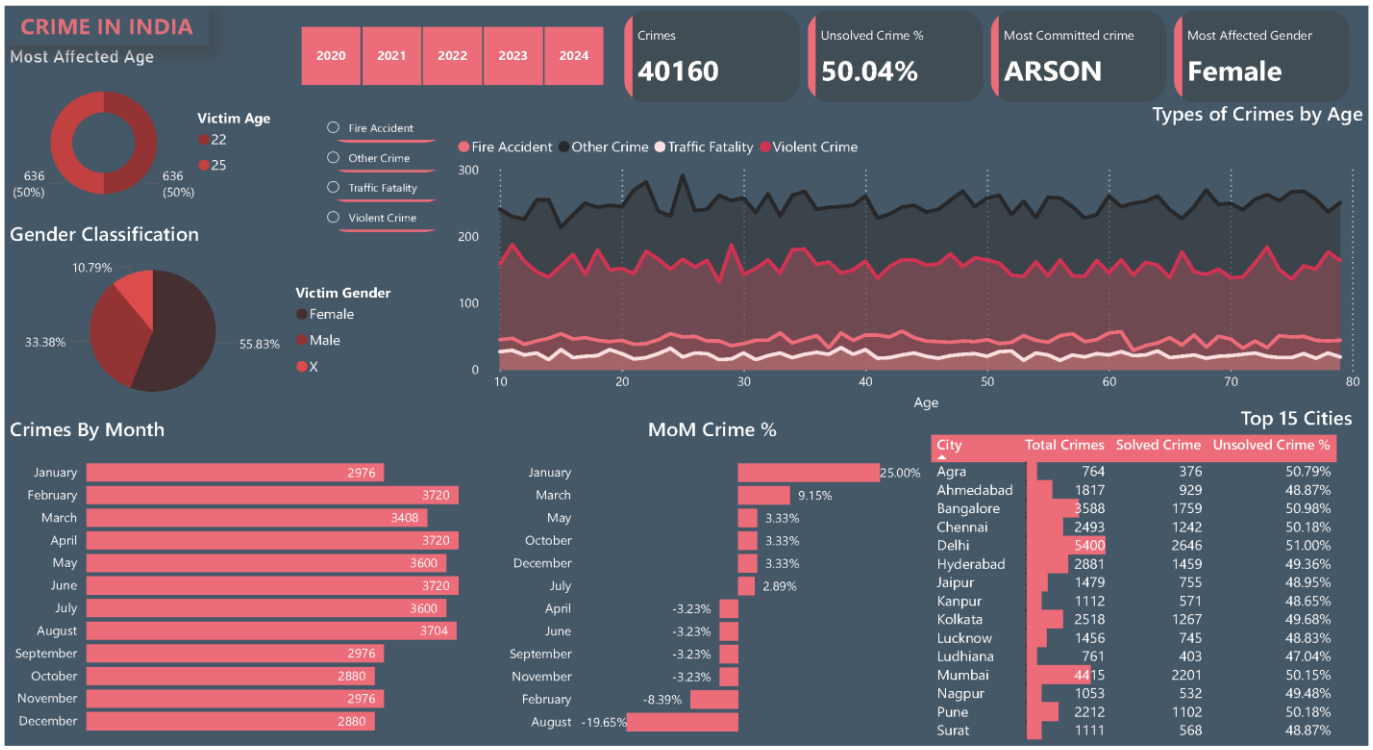
- Unsolved Crime Percentage:

```
Unsolved Crime % =
DIVIDE([Unsolved Crimes], [Total Crimes])
```

- All Crimes:

```
All Crimes =
CALCULATE(
    [Total Crimes],
    ALL('India Crime'[Report Number])
)
```

VISUALIZATION-



CONCLUSION-

After doing necessary analysis and the visualization, it was found that:

- The overall crimes committed were 40,160 and out of these almost 50.04% cases are unsolved.
- Out of these "Arson" was the most committed offence.
- Females are the most affected gender, accounting for 55.83% of victims, followed by male at 33.38% and other gender identities having 10.79%.
- The ages 22 and 26 are equally most affected.
- After other related crimes violent crimes are the most committed offence. Even though Arson has the highest numbers, Fire mishaps are still lower than violent crimes. After these traffic fatalities are the lowest.
- Crime numbers fluctuate through out the years, peaking in February through August, highest being in 3 months of February, April, June having 3720 each, and lowest in October and December having 2880 each.
- The highest Month on Month increase occurred in January with 25% peak, while august saw the largest decrease with -19.65%.
- Delhi reports the highest total crimes contributing 5400 of total, followed by Mumbai with 4415, and then Bangalore having 3588 of total.
- Most cities have an unsolved crime rate close to 50%, with Delhi slightly higher at 51 % and other major cities like Bangalore, Chennai, and Delhi just above 50%.
- In every top city, solved crimes are fewer than half of the total, reflecting a consistent challenge in crime resolution.