TABLEAU PROJECT REPORT

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Analysis Of Crimes In India

Submitted by

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Registration No : 12103063

Programme and Section: K21DP

Course Code :INTB233

Under the Guidance of

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Discipline of CSE/IT

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<u>CERTIFICATE</u>

This is to certify that **Garapati Phaneendra siddhu** bearing Registration no. **12103063** has completed **INTB233** project titled, **"Analysis Of Crimes In India"** under my guidance and supervision. To the best of my knowledge, the present work is the result of his/her original development, effort and study.

Signature and Name of the Supervisor
Designation of the Supervisor
School of Computer Science and Engineering
Lovely Professional University
Phagwara, Punjab.

Date: 25/4/2024

DECLARATION

I, **Garapati Phaneendra siddhu** student of **Computer Science and Engineering** under CSE/IT Discipline at, Lovely Professional University, Punjab, hereby declare that all the information furnished in this project report is based on my own intensive work and is genuine.

Date: 25/4/2024   Signature

Registration No : 12103063   Name of the student: Garapati siddhu.

Introduction:

In recent years, understanding crime patterns and trends has become increasingly imperative for effective law enforcement, policy formulation, and societal well-being. India, as one of the world's most populous and diverse countries, faces multifaceted challenges in combating crime while ensuring the safety and security of its citizens.

This report presents a comprehensive analysis of various aspects of crime in India, leveraging data visualization techniques through Tableau. By examining historical crime data across different states and categories, this analysis aims to provide insights into the nature, distribution, and trends of crime occurrences.

Through interactive visualizations and data-driven insights, this report seeks to uncover patterns, correlations, and anomalies within the crime data. By shedding light on the dynamics of crime in India, we aim to contribute to informed decision-making processes, resource allocation, and strategic interventions to address prevalent challenges effectively.

Objectives/Scope of the Analysis

Identifying Trends: The primary objective of this analysis is to identify trends and patterns in crime occurrences across different regions of India over a specified period. By examining historical data, we aim to uncover insights into the temporal and spatial dynamics of various crime categories.

Visualization and Communication: A key aspect of this project is the utilization of Tableau dashboards to visualize and communicate the findings effectively. Through interactive visualizations and data-driven narratives, we aim to present complex crime data in a user-friendly format that facilitates understanding and decision-making.

Source of dataset :

The dataset **"Analysis of Crimes in India"** was obtained from Kaggle, a prominent platform for sharing and discovering datasets, code, and projects related to data science and machine learning. Kaggle hosts a diverse collection of datasets contributed by users from around the world, covering a wide range of topics and domains.

The specific dataset used in this project was sourced from Kaggle's repository of publicly available datasets. It was uploaded and shared by a user who collected and curated the data from reliable sources, including government reports, law enforcement agencies, and other authoritative sources involved in crime data collection and reporting in India.

The dataset provides comprehensive information on various aspects of crimes reported across different states and Union territories of India. It includes details such as the type of crime, location, date, time, and other relevant attributes necessary for conducting in-depth analysis and exploration.

ETL Process:

Extraction:

Source Identification: Identify the source of the dataset, in this case, Kaggle.

Data Download: Download the dataset "Analysis of Crimes in India" in CSV format from the Kaggle website.

Data Verification: Verify the integrity and completeness of the downloaded dataset to ensure it contains relevant information for analysis.

Data Exploration: Perform initial data exploration to understand the structure, format, and contents of the dataset, including the types of variables, columns, and potential data quality issues.

Transformation:

Data Cleaning: Clean the dataset to address missing values, inconsistencies, duplicates, and other data quality issues. This may involve techniques such as imputation, filtering, and standardization.

Data Integration: Integrate additional data sources if necessary to enrich the dataset with supplementary information relevant to the analysis, such as demographic data, geographic data, or crime classification codes.

Load:

Data Loading: Load the cleaned and transformed dataset into the database or storage system, maintaining the integrity of the data structure and relationships.

Dashboard Development: Develop interactive dashboards using Tableau or other visualization tools to visualize the cleaned and transformed data effectively. Design intuitive and informative visualizations that convey insights into crime trends, patterns, and demographics.

Analysis On Dataset:

1.Analysis Of State-wise Total Murders:

Data Preparation:

- The analysis utilized a dataset containing information on crime incidents in India, including details of murders reported in various states and Union territories.
- The dataset was cleaned and prepared in Tableau to ensure data integrity and consistency, addressing any missing values or inconsistencies.

Visualization Creation:

- A map visualization of India was created in Tableau, with each state and Union territory represented as a discrete geographic unit.
- The total number of murders reported in each state was mapped onto the respective geographical regions, enabling users to visually compare murder rates across different parts of the country.

2. Line Graphs Representation: Yearwise Murders and Attempted Murders

In the tableau visualization component of our project on the "Analysis of Crimes in India," we employed line graphs to depict the trends of murders and attempted murders over successive years. These line graphs serve as powerful visual tools for illustrating the temporal dynamics and variations in homicide incidents across India.

3. Top 10 In IPC Crimes:

In the analysis of crimes in India, a comprehensive examination of the top 10 states in IPC (Indian Penal Code) crimes was conducted. Utilizing pie charts as a visualization tool, the distribution and magnitude of criminal activities across these states were depicted. This graphical representation not only provided a clear insight into the prevalence of crimes but also facilitated a comparative understanding of the regional variations in criminal occurrences.
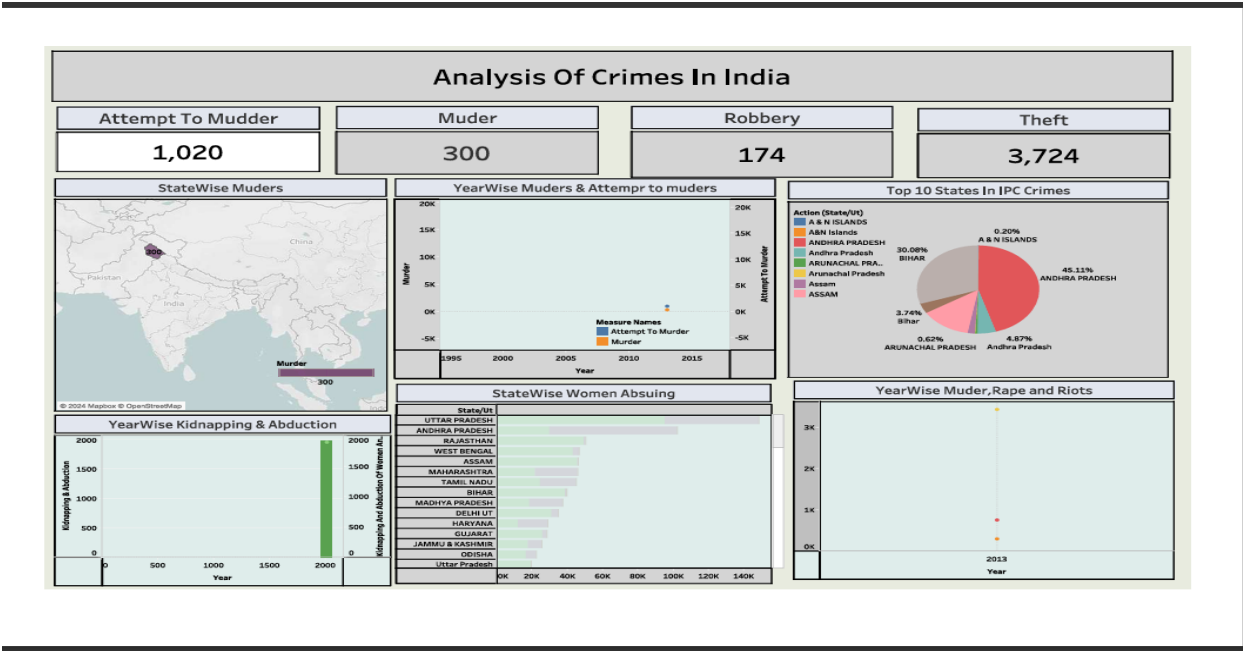
4. YearWise Kidnapping & Abduction:

In our analysis of crimes in India, particularly focusing on Yearwise Kidnapping & Abduction, we employed combined line and bar graphs to provide a comprehensive visual representation. This approach allowed us to effectively depict both the trends over time and the comparative analysis of different categories within the data. By integrating these graphical elements, we aimed to offer a nuanced understanding of the dynamics surrounding this critical issue.

5. YearWise Murder, Rape and Riots:

In our analysis of crimes in India, specifically focusing on Yearwise Murder, Rape, and Riots, we utilized combined line graphs to illuminate the trends and patterns over time. This approach allowed for a clear and concise visualization of the fluctuations in these significant crime categories across different years. By employing combined line graphs, we aimed to provide a comprehensive understanding of the dynamics surrounding these critical issues, facilitating informed decision-making and policy formulation.
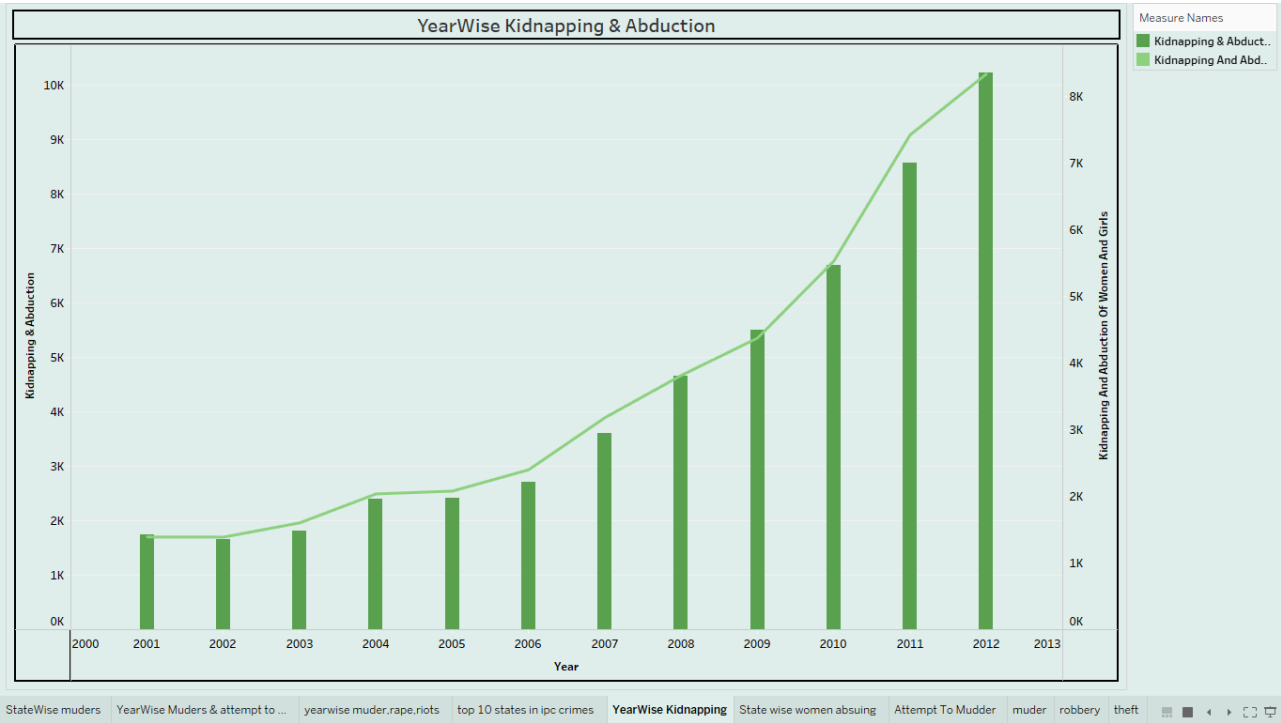
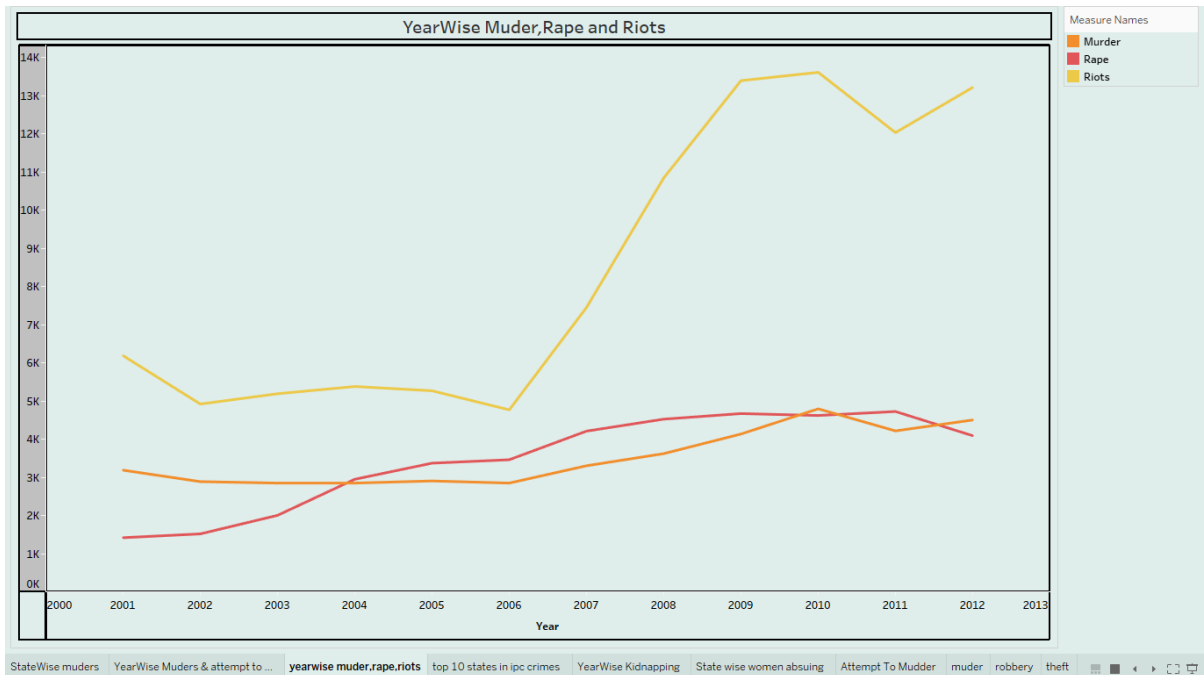# List Of Analysis With Results:

Dashboard:

StateWise Muders:

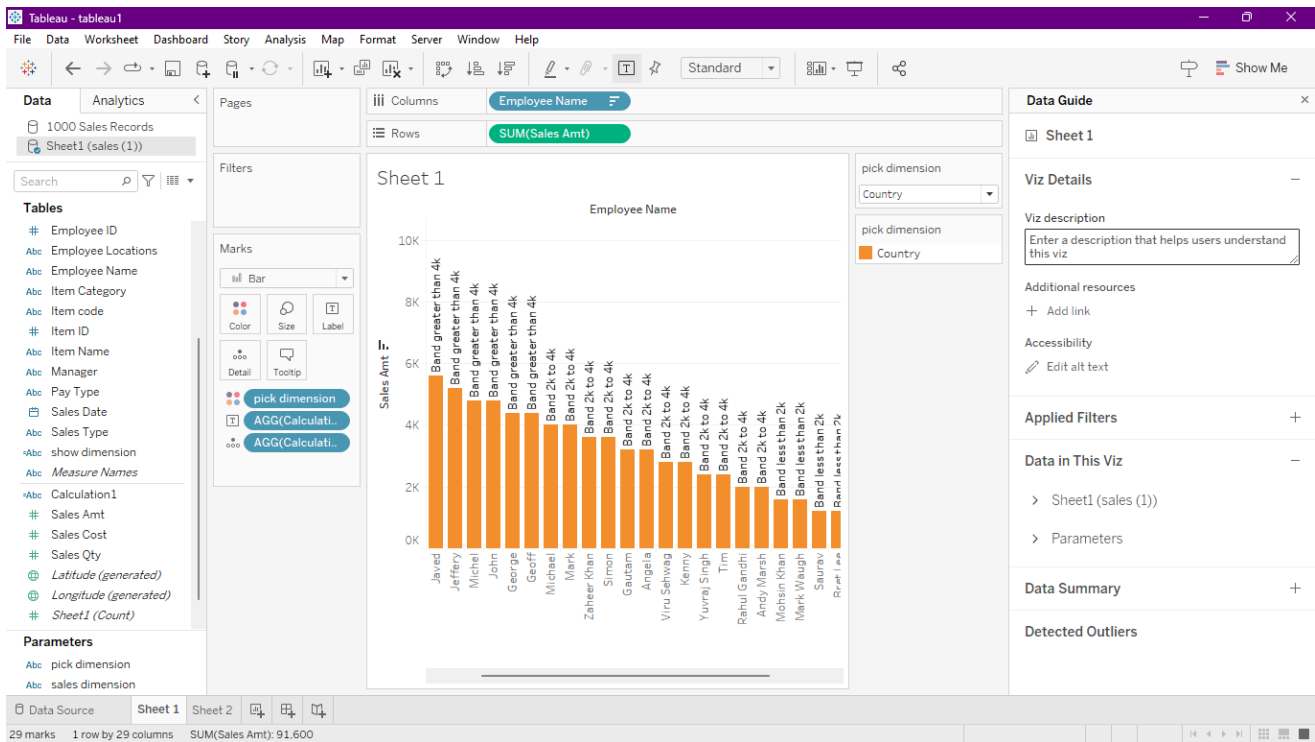## YearWise Muders & Attempt to Muders
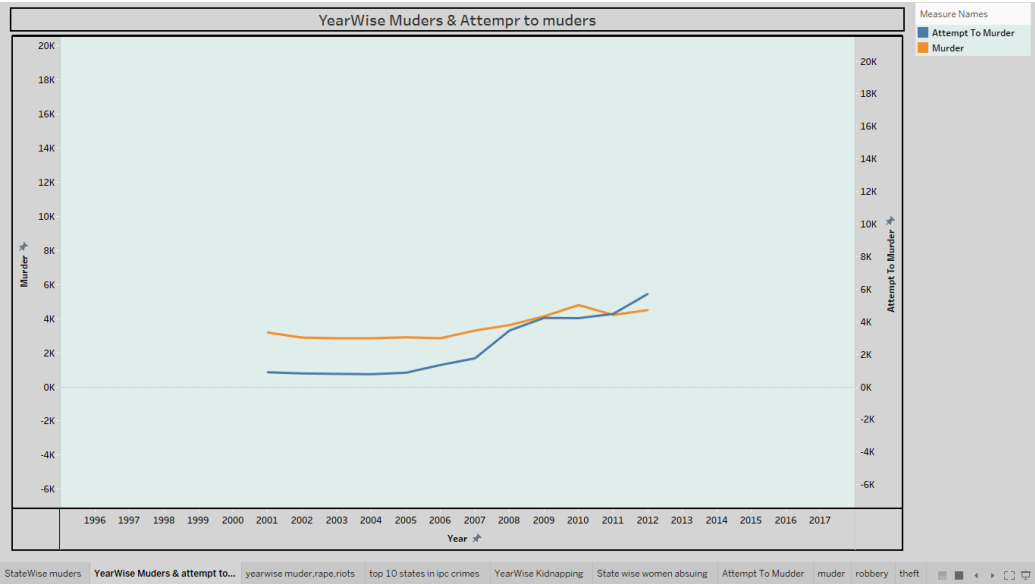
YearWise Kidnapping& Abduction

YearWise Muder, Rape & Riots

StateWise Women Absuing:

References:

DataSet: [Find Open Datasets and Machine Learning Projects | Kaggle](#)

Dashboard: [www.youtube.com](#)

Conclusion:

In my project "Analysis of Crimes in India," I conducted a comprehensive examination of crime data focusing on murder, rape, and riots. Utilizing combined line graphs, we visually depicted the trends and fluctuations in these crime categories over the years. This approach facilitated a deeper understanding of the dynamics surrounding these critical issues, enabling informed decision-making and policy formulation.