CRIME RATE ANALYSIS

Guided by
Prof. Avinash Gondal

Group
20 Kritarth Kambli
37 Rahul Patil
39 Pooja Patkar
48 Vishal Shirke

INTRODUCTION

- Growing crime rate is a major concern and it is essential to find techniques to reduce it.
- Crime analysis gives us better understanding of crime trends which is highly beneficial.
- Ability to use big data for easy and efficient understanding of patterns.
- In India, GIS (Geographic Information System) is used for crime mapping. But applications for GIS in policing is in starting stages and use of GIS based data analysis can be useful.

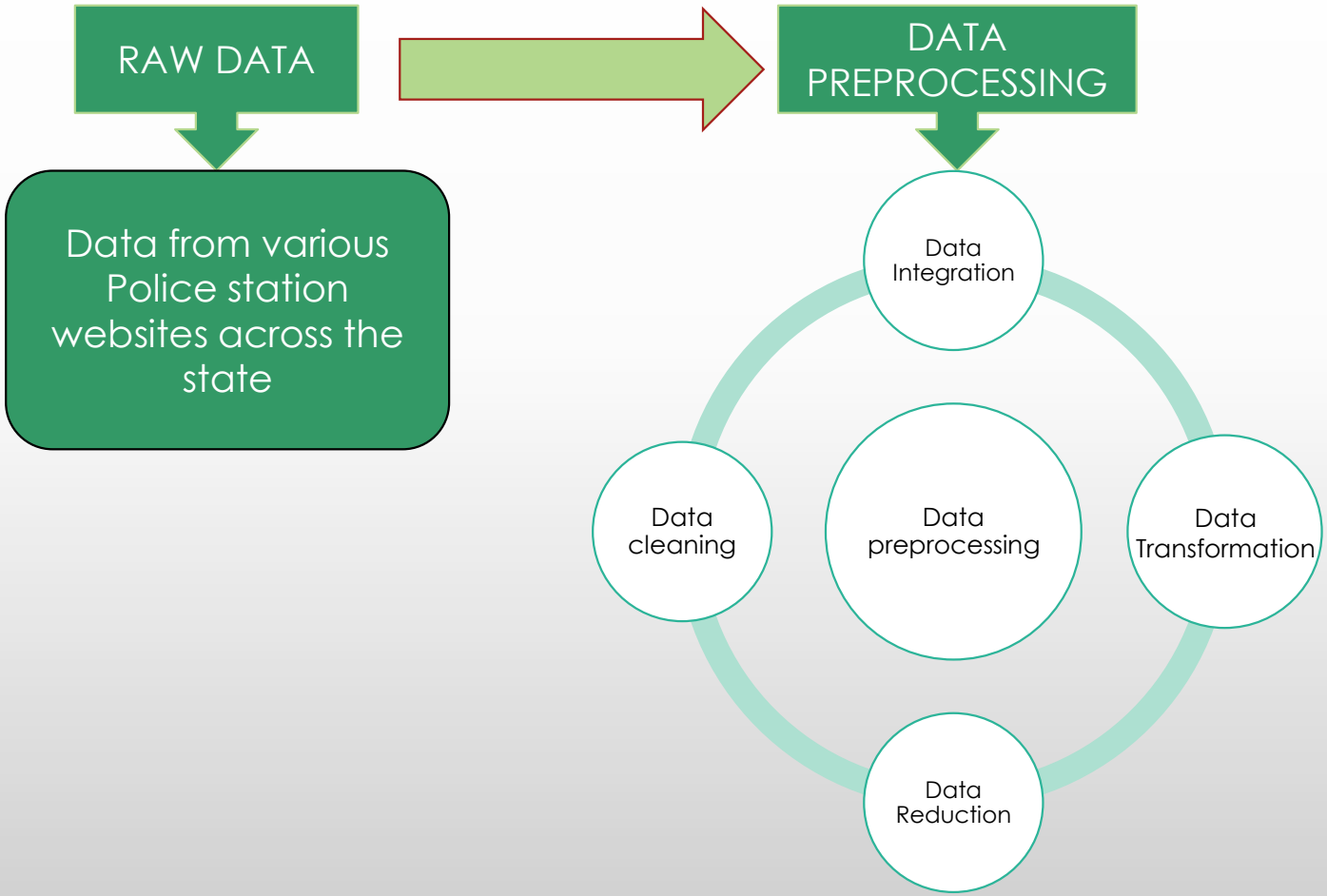
SCOPE

- Criminal data is available for public but it is mostly focused on combined data about a state. The data for individual cities is not easily accessible and is mostly in the form of FIR/charge sheets in local languages.
- This can be solved by analyzing, classifying and creating a GIS environment for individual cities. Simple crime maps and statistical data in the form of graphs can help the police as well as the citizens in many ways.
- Much of the current work is useful for policing and focused in two major directions:
- Predicting surges and hotspots of crime and understanding patterns of criminal behavior that could help in solving criminal investigations.

PROPOSED SYSTEM

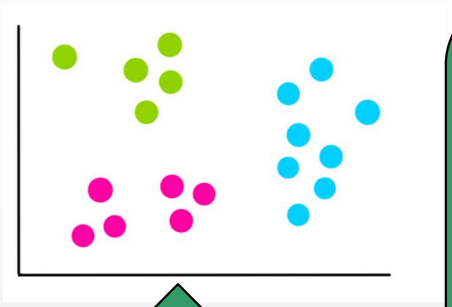
- For easy accessibility and use we propose to build a mobile application/website which will be available for public and private use.
- The application will provide a brief overview of current state of crime.
- The frontend of the application will focus on statistical data visualization and crime mapping.
- The backend system will focus on generating accurate statistical data and intensity of crime for GIS mapping.

PROJECT WORKFLOW



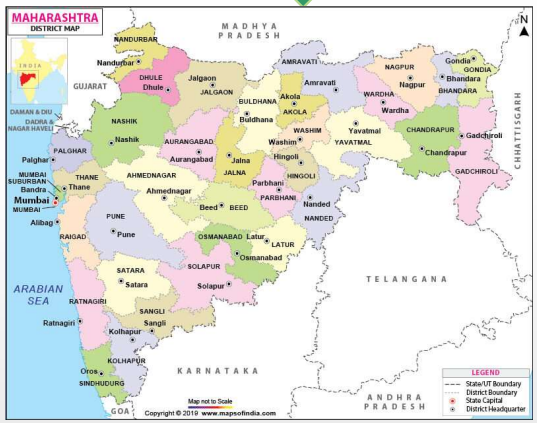
PROJECT WORKFLOW

Clustering → Classification → Visualization



K-Means

- KNN
- Random Forest Classifier
- Logistic Regression, etc.



PROJECT REQUIREMENTS

- **Hardware Requirements:**
  - Computer/laptop
  - Intel i5 10th Gen or higher/8gb Ram
- **Software Requirements:**
  - Python
  - Flask/Android/Flutter
  - HTML
  - CSS
  - JavaScript

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