

# CRIME ANALYSIS MAPPING, INTRUSION DETECTION

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# Overview

- Crime Analysis uses quantitative and qualitative data in combination with analytic techniques in resolving the cases.
- For public safety purposes, the crime mapping is an essential research area to concentrate on.
- Authorities add the crimes and details about the cases.
- In Crime Analysis Mapping, we follow the following steps in order to reduce the crime rate: 1) Collect crime data 2) Group data 3) Clustering 4) forecasting the data.
- Crime Analysis with crime mapping helps in understanding the concepts and practice of Crime Analysis in assisting police and helps in reduction and prevention of crimes and crime disorders.



# Existing System

- Crime has been increasing day by day and everyone in the world is trying to figure out how to manage the crime rate and to work on certain cases, most of the people are trying to store the data for future reference.
- There are different types of crimes law enforcement levels, such as traffic violations, sex crime, theft, violent crime, arson, gang/drug offenses, cybercrime.
- Crime zones can be identified by occurrence of crime, by using hotspots.
- The data mining tool helps in reducing the crime rate drastically.
- Different crime data mining techniques are proposed among each of them including entity extraction, clustering techniques, Association rule mining.



# Proposed System

- Crime Mapping helps in understanding the concepts and practice of Crime Analysis in assisting police and helps in reduction and prevention of crimes and crime disorders using data mining tools.
- We can use data mining tools involved using KNN and Random Forest for training and classifying the data.
- We collect the data from police department and try to get each and every detail, like the person's name, height, age, sex, fingerprint details, and pattern identification number for similar types of cases.
- Once we get the information, we start to process the data. We get a lot of unnecessary data along with the required data.



- But before we start processing the data using data mining techniques and tools, we need to identify unnecessary data and remove those kinds of data to reduce or to avoid the confusion.



# Literature Review

Crime Analysis Using K-Means Clustering:

A. Joshi, A. S. Sabitha and T. Choudhury, "Crime Analysis Using K-Means Clustering," 2017 3rd International Conference on Computational Intelligence and Networks (CINE), 2017, pp. 33-39, doi: 10.1109/CINE.2017.23.

- Crime is analysed using k-means clustering tool.
- Collection of dataset from the Bureau of Crime Statistics.
- Preprocessing of dataset.
- Analysis of clusters obtained using k-means and case study of crime at various locations.

## **Disadvantages:**

- The crime are analysed but the results may not be accurate  
le, the similar ones are adjust mapped.
- It is difficult to identify the same kind of crime.
- Data Mining is an operation that analyzes data from various perspectives and summarizes or generalizes it into useful information or relationships.



# Objectives

- Implement the crime analysis model.
- Implement a interface for collecting crime data.
- Implement web-based user interface.



# Advantages

- We mainly collect the attributes information, like details, characteristics, dimensions, or other features.
- The use of information mining methods helps in resolving most complicated criminal cases.
- One of the best methods is crime analysis with crime mapping. Crime analysis with crime mapping helps in understanding the concepts and practices of crime analysis in assisting police and helps in the reduction and prevention of crimes and crime disorders.





# Technologies Used:

- Front End: HTML with Python
- Back End: Mysql



# Conclusion

- The main the aim of the project is to prevent the rate of crimes and also don't allow anyone to commit the crime.
- As per the idea described it also reviews and support the authorities such as police.
- It also make the people to understand the situation about the existing world.
- To make the rate of crime to be minimized.



## Future Scope

- The main objective of the project is to minimize the crime and take the necessary steps.
- We can add the additional details such as fingerprints and other whereabouts.
- The datasets can be taken from the global so helps to identify the crime which is not recognized.
- Also make the model much more user friendly.



# References

- A. Joshi, A. S. Sabitha and T. Choudhury, "Crime Analysis Using K-Means Clustering," 2017 3rd International Conference on Computational Intelligence and Networks (CINE), 2017, pp. 33-39, doi: 10.1109/CINE.2017.23.
- [www.w3schools.com](http://www.w3schools.com).
- <https://learn.q2.com/k-nearest-neighbor>
- <https://www.kaggle.com>



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