
# TEAM DATASCIENCE

# "CRIME ANALYSIS AND PREDICTION"

2022

"EVERY SOCIETY HAS THE CRIMINALS THAT IT DERSERVES"

# AGENDA

- ABSTRACT
- OBJECTIVE
- INTRODUCTION
- DESIGN AND METHODOLOGIES
- IMPLEMENTATION
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# ABSTRACT


- Crime analysis and prevention is a systematic approach for identifying analyzing patterns and trends in crime.
- Our system can predict regions which have high probability for crime occurrence and visualize crime prone areas.
- With the increasing advent of computerized systems, crime data analysts can help the law enforcement officers to speed up the process of solving crimes.
- Even though we cannot predict who all may bethe victims of crime but can predict the place that has probability for its occurrence.
- K-means algorithm is done by partitioning data into groups based on their means.
- This system can also be used for the Indian crime departments for reducing the crime and solving the crimes with less time.

# OBJECTIVES

Aim of the Project:

The aim of the project is to develop a software that provide data to the investigator or police from the huge amount of info that is stored in database.

Datavisualization is also used torepresent the output in theformsof images and charts.

Scope of the project:

The scope of the project is to prevent crimes or control the crimes activities which may occur in the future.

# INTRODUCTION

- Crime is a violation of humanity, often punishable by law. Criminology is a crime, interdisciplinary science that investigates and investigates crime and criminal performance data.
- Criminal activity is now high and the police department is responsible for controlling and reducing criminal activity.

  Here, we introduced data mining algorithms to guess the crime.
- This system assumes the crimes that occur in society. Analyze the criminal data stored on the database.
- The fate of crime events is mainly based on historical criminal and current records and demographic information.
- Crime is one of the biggest and dominating problem in our society and its

  prevention is an important risk.

## DESGIN AND METHOLOGIES

- MODULE 1:

  Data Collection and training using Machine learning Algorithms

- MODULE 2:

  K-Means clustering and viusalization

# PROBLEM STATEMENT

- To categorize crime data into High, Medium, Low.
- How to determine the optimized way to reduce crime cases.

# PROBLEM SOLUTION

- The crime cases have been categorized depending on the factors like single parent, health factor, etc...
- Reducing the crime cases by analyzing the crime pattern between various crimes by Machine Learning Algorithm.

# ATTRIBUTES

- ✓ AGE
- ✓ SINGLE PARENT
- ✓ POOR
- ✓ MENTAL STATE
- ✓ PREVIOUS CRIME
- ✓ HEALTH
- ✓ FACTOR
- ✓ PUNISHIED
- ✓ NO OF CHILRDEN
- ✓ NO OF CRIME/ DAY
- ✓ NO OF PUNISHMENT
- ✓ PARENTS CRIME RATE
- ✓ FRIENDS CRIME RATE
- ✓ RELATIVE CRIME RATE
- ✓ NEIBOUR CRIME RATE
- ✓ AREA CRIME RATE

# IMPLEMENTATION STEPS

- Data pre-processing
- Feature selection (PSO)
- Fitting the model to the Training set using native Bayes Algorithm

# REFERENCES


- **Shradhha Ramdas Bandekar1**, C, Vijayalakshmi (**2020**) "Design and Analysis of machine learning Algorithms for the reduction of crimes rates in India". Science Direct.

- **Kim. S.. Joshi, P.. Kalsi, P.S. and Taheri, P.. 2018,** November. Crime analysis through machine learning. In 2018 IEEE 9th Annual Information Technology, Electronics and Mobile Communication Conference IEE**E.**

# TECH STACK

- PYTHON - Pandas, Seaborn , Matplotlib, NumPy & SciPy
- Folium
- Bayes Algorithm

# CONCLUSION

- The soul purpose of this proposed project work is to give an idea of how machine learing can be used by the law enforcement agencies to detect, predict and solve crimes at a much faster rate and thus reduces the crime.

- Implementation of algorithms in machine learning by analysing the factors of crime taken from encourages to reduce crime cases.

# TEAM MEMBERS

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