

# Online Crime Reporting System

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## ABSTRACT

Crime now a days is increasing tremendously. The people are not at all safe in there local areas they are afraid of the goons and the hooligans around them. Women safety is the main issue faced today. We are coming ahead this topic so that the people can file any complaint against any person without any fear or pressure. They can file complaint using the application and even check the status of the update or the actions taken against there complaint. Women in danger can just press the lock button of there phone thrice which will send there current location to the nearest police station and also to the family member.

Hope this thing may bring change ass the people do not file complaints due fear or being pressurized. This would be stooped. Even people can check the crimes happening in there local areas and also see the crime rate all over the world.

**Keywords**—Crime analysis, Data Mining, Crime Patterns

## ARTICLE INFO

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## I. INTRODUCTION

The crime rate is increasing drastically with variation in its patterns. According to NCRB(National Crime Records Bureau) crime against women has significantly increased in these recent years. It has become an challenge and priority for the administration for bringing up new laws for women safety. We are developing the system which can be used to detect and predict the crimes for local area wherever anyone witnesses a crime in his locality. This system would help to reduce and will help people to file cases.

## II. EASE OF USE

### Problem Statement:

Crime is a major problem to the society, it must be checked. Although crime, being an internal part of civilization, it can definitely be kept within limits and see to it that it is reduced.this system would reduce effort of the people around and also give an relief to the police.

### Motivation:

1. Conditions effecting about the physical and social environment that provide opportunities criminal acts to take place.
2. Reducing criminal activities, crime prevention.
3. We have used supervised, and semi-supervised and unsupervised learning technique for keeping an record of the crimes and predicting and reducing the crime rating.
4. This work will help to reduce the crimes and also would be easy for people to interact with the police for reducing the crime rate.

### Objective:

1. To provide and research with respect to the crimes in the local areas and also increase the women safety and provides different data analysis algorithms which address the connections between crime and its pattern.

2. To implement different data analysis algorithms which address the connections between crime and its patterns.

### Related work:

Online Crime reporting System would help people to file complaints against any person without any hesitation or fear.The just have to register himself to the application and enter his/her details.The person whose complaint is

filed can even check the status of the same and see what all actions have been taken by the police against it. If a woman is in danger or feels like any danger she can just press the lock button of the phone thrice which will send the current location to the nearest police station and also to the family member along with a message saying "In danger need help". The non-registered person can also use the application to check the crime rate taking place in their locality just by typing their pin code. This system will help people to live life fearlessly and major priority is for the women's safety. We hope this system could bring change.

#### Project Scope:

Online Crime reporting System would help people to file complaints against any person without any hesitation or fear. They just have to register themselves to the application and enter their details. The person whose complaint is filed can even check the status of the same and see what all actions have been taken by the police against it. If a woman is in danger or feels like any danger she can just press the lock button of the phone thrice which will send the current location to the nearest police station and also to the family member along with a message saying "In danger need help". Due to this we reduce crime in the society and in the country. Here we use a module of crime capture means user can capture the photo of crime and send to police.

#### Mathematical Model

Let  $S$  be the Whole system which consists:

$$S = \{IP, Pro, OP\}.$$

Where,

- A. IP is the input of the system.
- B. Pro is process which gives input.
- C. OP is the output of the system.

#### A. Input:

$$IP = \{LOC, PB\}.$$

Where,

- 1. LOC is user current location.
- 2. PB is, if a woman feels as unsecured then she will press her android mobile button more than 3 to 4 times. After that, next process is started.

#### B. Process

$$PRO = \{M1, M2, M3\}$$

M1 (Crime Detection and Prediction from dataset) = Fetch the crime data from database area wise on the basis of woman current location and predict crimes of that location to her.

M2 (Woman Safety) = If a woman feels as unsecured then she will press her android mobile button 3 to 4 times. After that, the help message is sent to his parents/relatives.

M3 (Crime scene capture) = If a woman is unfortunately at the location where the crime is going to happen, the woman captures the crime scene and after that she will get the nearest police station list, she selects the nearest one and sends it. The current location is also automatically sent. Using that message the police alerts and goes fast to that location and handles the situation.

#### C. Output:

$$OP = \{O1, O2, O3\}$$

O1 = Display the crimes prediction area wise to the user in (%).

O2 = The woman got help. She safely reached at his destination.

O3 = The captured crime scene will help much more to the police for evidence.

### III. LITERATURE SURVEY

1. Paper Name:- Shift Route: Achieving Location Privacy for Map Services on Smartphone's.

Author:- Peng Zhang, Chengchen Hu, Di Chen, Hao Li and Qi Li

Description:- In this paper we understand how to use the location, or how to get the geographical co-ordinates from the map. As we require this information for the purpose of women's safety. When the woman presses the phone's lock button thrice the location will be shared to the police as well as the family members. From this paper we get the clear knowledge about the maps and its services which can be provided in a smartphone without any trouble or without any query. Using this research we have got to the conclusion about providing the safest route to the user during the night times or whenever he/she feels threat.

2. Paper Name:- A Common Topic Transfer Learning Model for Crossing City POI Recommendations. Author:- A Common Topic Transfer Learning Model for crossing City POI Recommendations

Description:- From this paper we get to know about the information that can be shared through or between the city. As our system needs to be user friendly or platform independent so that the user can use it anywhere and any time just as he has to login if he is the registered one and then as per the location he would be provided the same help or the services he gets in his own locality. This paper tells us about crossing the city and getting the same services provided.

3. Paper Name:- Blind Filtering at Third Parties: An Efficient Privacy-Preserving Framework for Location-Based Services

Author:- Jing Chen, Kun He, Quan Yuan, Min Chen, Ruiying Du, and Yang Xiang

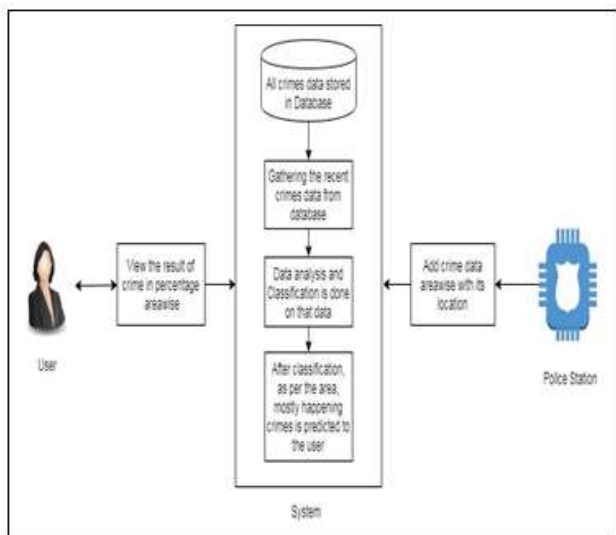
Description:- In this paper, we get to know about the privacy system or how to get the user's information safe. We also get to know how to keep the data away from the unauthorized user so that they cannot interfere or else change anything. The user has to register himself using his/her unique ID and password which would be known to the user only. No other person can access the data without the password and ID.

4. Paper Name:- Hierarchical- Multi-Clue Modeling for POI (Varying Tourist Information)

Author:- Yaang Yaang, Yaaqian Duan, Xiinze Wang, Zing

Description:- This paper tells us about the information of the person or how to identify the person is same or any other trespasser. Using this paper we have got the information about popularity prediction with Heterogenous Tourist Information's. Even we get the information about keeping the data secured and safe from the unauthorized users or hackers.

#### IV. SYSTEM ARCHITECTURE



In above system architecture diagram we have three modules that are

#### Modules:

User: User has to use the application for login and registering himself to the system.

Police Officer: Officers job is to keep updating the system records and also to check the new complaints filed.

Woman Safety: Women just have to press the lock button of there phone more then 3 times when in danger. Which will send a message and current location.

Crime Scene: Here the user can capture photos of crime scene and send to there nearest location. Using which police can come to the crime scene and check everything is fine or not.

The flow of system architecture is as follows :-

#### User:-

User needs to register himself in the system using his credentials for authentication. The registered user can login to the system. After the login he/she can file complaints or any other problems he/she has. He can even upload the photographs of the crime scene. They can check the status of there filed complaint what all actions have been taken against it by the police.

The non registered users can also use the application for checking the crime rate and all the information regarding the crimes in there locality by just entering there pincode.

Women would get a safety feature whenever they are in trouble they just have to press lock button of there phone more than three times which will sent an message to the nearest police station and there given emergency number which will say”I need help”it will also contain there location co-ordinates like longitude and latitude.

#### Storage system:-

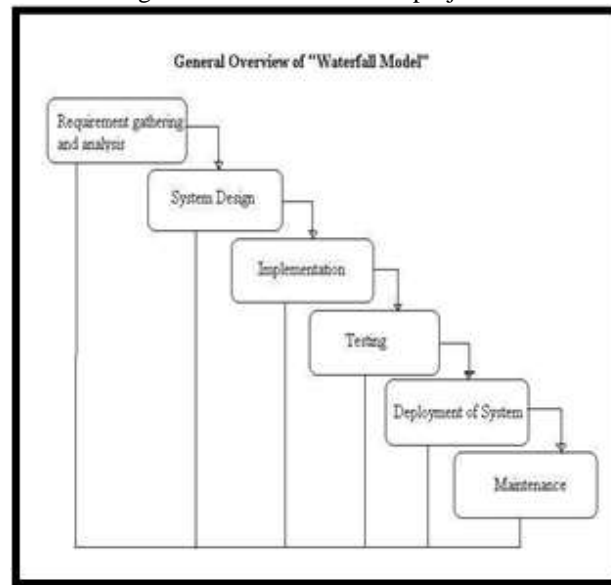
All the data entered by the user is stored at the backend where we have used my-sql. The data like photographs, there confession or there complaint etc, everything is stored and can be accessed only by the admin no other person can access or change the data.

#### Admin:-

In this system the admin would be the police. They would get a webpage to access the data. The police can update the status of there complaints. Police can also update the actions taken about there complaints.

#### V. METHODOLOGIES USED

We are using waterfall model for our project



#### 1. Requirement gathering and analysis:

After using the waterfall model we have got some of the conclusions like software and hardware required, database, and interfaces.

#### 2. System Design:

In this phase the system design is done userfriendly so that the user should not get any difficulties using the application. The user should use this system without any problem.

#### 3. Implementation:

Each an every unit of the system tested in this phase and implemented to make sure the system is error free for testing in next phase.

Testing:

Different test cases are used to test the system so that all the errors are removed are the system works properly.

All the units are tested individually so that no failure takes place in the system after the implementation phase.

#### 4. Deployment of System:

After the testing is done and after checking all the functional and non-functional units the system is handover to the user or launched in the market.

#### 5. Maintenance:

Some of the issues takes place even after the system is delivered to the customer due to some technical reasons or due to the deletion of file or virus.. So the admin has to see to it that he fixes all the problems and update the system.

All these phases are linked to each other as per shown in the waterfall model. The phases are linked but they never overlap eachother.

Technologies/Algorithm used.

1. Aprori
2. K-Means
3. Naive Bayes
4. KNN

Hardware Requirements:

System :	PentiumIV2.4GHz
Hard Disk :	40 GB.
Floppy Drive :	1.44 Mb.
Monitor :	15 VGA Colour.
Mouse :	Logitech.
Ram :	512 Mb.

Software Requirements:

Operating system :	Windows XP/7.
Coding Language :	JAVA
IDE :	Eclipse
Database :	MYSQL

## VI. FUTURE SCOPE

In future we will be using machine learning for processing the data.

This app would bring an change in the society.

## VII. ADVANTAGES AND DISADVANTAGES

Advantages:

1. Common people Get accurate crime rate
2. Woman feels safe anytime, anyplace.
3. Easy to inform police station about ongoing crime.

Disadvantages:

1. Android mobile required to use the system.

2.If mobile is switched off then user can not able to send help message.

## VIII. CONCLUSION

We have made this so that no partiality is done with any person. Everyone gets equal treatment the goons or the people performing criminal acts gets the exact punishment they deserve.

Women should feel safe in there locality whenever they are alone even in unknown place.

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