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Criminal Investigation Tracker with Suspect Prediction

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ABSTRACT: Whenever a case against the crime is filed the investigation always starts from the scratch right away from the evidences found at the crime location and the eye witnesses present at the crime location. On the basis of the statement given by the eye witnesses about the crime and the criminal who committed that crime. The process of the investigations starts. As to reduce the stress of the police officers we implemented a system as criminal investigation tracker with suspect prediction that will help the officers to speed up the process of investigation and track status of ongoing case by predicting out the primary suspects on the basis of the records which consists of compendium of the people associated to the case, former criminal background proofs recovered from crime location, etc. This digitized system makes the work easy for an officer to check the status of the case online and even allows him to add up the new important information related to the case as it's when needed. The proposed system consists of suspect prediction algorithm to predict and suggest the suspects in the logical order.

KEYWORDS: Criminal Investigation; Suspect Prediction; Prediction Algorithm

I. INTRODUCTION

We here propose a criminal investigation tracker system that tracks the investigation status of criminal cases with logs and also predicts primary suspects. The system is proposed to help agencies like CBI, CID and other such bureaus to speed up investigation process and track status of multiple cases at a time. The system keeps logs of a case which includes case summary, people involved, disputes, past criminal history of those involved, Items recovered on scene and other details. The system realizes the type of case, allows admin to update the status of investigation, upload more images of crime, items found on scene etc. This allows authorized officers to check case status and look into its status online and also update any important info as and when needed. The system also consists of a suspect prediction algorithm. Based on type of case, property, land, love or other entities involved the system studies past cases, it studies past criminal records of those involved and based on this data it provides suggestions of suspected persons in a logical order. The system is designed to aid investigation teams to work collectively on cases, coordinate and also speed up the process by suggesting logical suspects based on data provided.

Crime is an awful and illegal act against law for doing wrong things out of which someone can be punished by police authorities and government. A criminal is a person who has committed or is involved with any kind of crime. Crimes are a social nuisance and cost our society nearly in several ways. In our society the crime rate is growing very rapidly especially women are facing many of such crime problems. The reason for this might be the low pronouncement of guilt. About 10% of criminals commit 50% of crimes. This system helps in keeping over the patterns in crime scenario i.e. whether it is increasing or decreasing and if increasing then what are the problem areas. The first phase of the project gives the brief overview of the project and its objective. The main objective is to find and predict the probable suspect for the unsolved cases from the criminal records present in the database in the system. Here, in the initial stage the admin adds the officer to the system and then add them to a particular case that they are going to investigating individually. As the Officers are added to a particular case, the officer will add the details of the criminal in their database and once the information related to the criminal is over then the second phase would began. The second phase concentrates mainly over shaping the project towards its ultimate goal. Once, the data of criminal is added to the database the officers files the FIR and all the details of the victim and criminal is added. Herein, we concentrate on predicting the crime, how the crime had taken place with the help by using the decision tree algorithm. Their growth, depreciation and other associated results concerning the crime scenario. On the basis of the case type, belongings, land properties, relationships and other such aspects associated with the former crime logs involved and based on the respective information the prominent suspects are predicted and are suggested in a logical order. II. LITERATURE

REVIEW Crime is basically “unpredictable” event. It is not constrained by space and time. It entirely depends on human behavior. There can be huge range of crime activities, for example, from illegal driving to terrorism attacks. Various activities performed by criminal generate large amount of information and again this information can be present in variety of formats. Because of this analysis of crime data becomes very difficult. Data mining is a useful process for extracting important information from large amount of data. In modern era criminals use more advance technologies to commit the crime, on the other hand there is inadequate use of technology in crime prevention and criminal identification. Since large data and more complex queries need to be processed, a more powerful system is required for the analysis of crime data. Crime Criminal Information System (CCIS), Crime and Criminal Tracking Network System (CCTNS) and a lot of such systems have been developed and are in use for making the crime investigation process easier. These systems have used different data mining techniques for the analysis of crime data.

II. LITERATURE REVIEW

Crime is basically “unpredictable” event. It is not constrained by space and time. It entirely depends on human behavior. There can be huge range of crime activities, for example, from illegal driving to terrorism attacks. Various activities performed by criminal generate large amount of information and again this information can be present in variety of formats. Because of this analysis of crime data becomes very difficult. Data mining is a useful process for extracting important information from large amount of data. In modern era criminals use more advance technologies to commit the crime, on the other hand there is inadequate use of technology in crime prevention and criminal identification. Since large data and more complex queries need to be processed, a more powerful system is required for the analysis of crime data. Crime Criminal Information System (CCIS), Crime and Criminal Tracking Network System (CCTNS) and a lot of such systems have been developed and are in use for making the crime investigation process easier. These systems have used different data mining techniques for the analysis of crime data.

III. METHODOLOGY

The system and for the case whereas in another attribute i.e. the view case attribute here, the admin can be able to view the cases present. In the Police Login, we have attribute as Add new criminal where we have to add the criminal name, address, age, gender, type of crime, location, evidence, crime month, crime year, time of day, suspect image by this the criminal information gets added to the system. At the next level i.e. Add new fir, the police adds the details of the case name i.e. what type of crime has happened, the name of the victim, type of crime, location and evidences that are been found on the location of the crime. Here, in this page we get the prediction about the suspect by using the algorithm known as Decision Tree algorithm. Another attribute is about the case enquiry, where the police can access the information about the case and can get the advanced information about the probable suspect of the case. The next attribute is the Final case, here in this we have to select the case name and well get the status of the case i.e. whether the case is completed or it is pending. Then at the detail of the case i.e. the suspect information we have an option. to add the case for investigation or not and when we add the case for investigation we get the prediction about the crime that who is the major suspect in the crime. The final and the important attribute is the prediction part, here there are three main attributes i.e. we have to enter the type of crime, location and evidence of the case and when well click on the search button the result will be generated to us .

The fundamental part of a criminal investigation is in finding out the probable suspects involved in a crime. This can be further enhanced by linking the crimes which have been committed in the past and by the nature of crime. In this study we have developed a novel soft system methodology (SSM) to identify the most probable suspects involved in a crime. This methodology also helps to automate the system that can be applied to various scenarios. Also with the use of Mobile GIS, we can analyze suspects journey to crime by analyzing the cell tower records of the crime location. Call detail records of the victims phone are analyzed to understand their recent contacts.

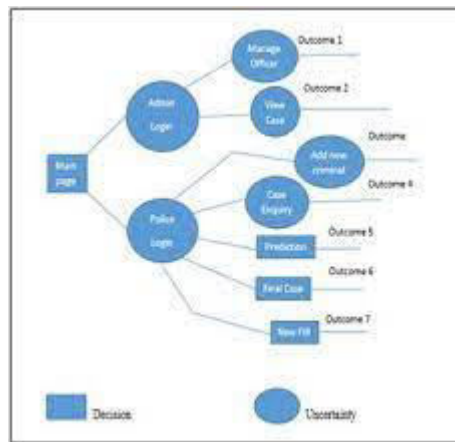


Fig1: Criminal Investigation Track

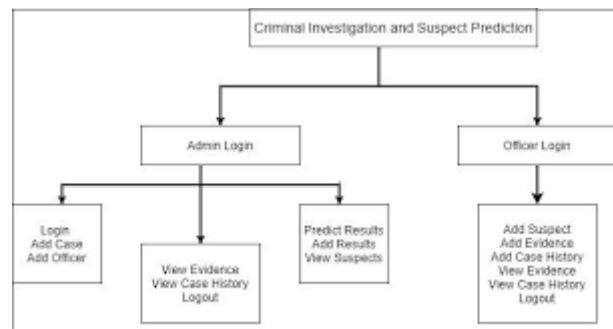


Fig2: CRIMINAL INVESTIGATION TRACKER

We here propose a criminal investigation tracker system that tracks the investigation status of criminal cases with logs and also predicts primary suspects. The system is proposed to help agencies like CBI, CID and other such bureau’s to sped up investigation process and track status of multiple cases at a time. The system keeps logs of a case which includes case summary, people involved, disputes, past criminal history of those involved, Items recovered on scene and other details. The system realizes the type of case, allows admin to update the status of investigation, upload more images of crime, items found on scene etc. This allows authorized officers to check case status and look into its status online and also update any important info as and when needed. The system also consists of a suspect prediction algorithm. Based on type of case, property, land, love or other entities involved the system studies past cases, it studies past criminal records of those involved and based on this data it provides suggestions of suspected persons in a logical order. The system is designed to aid investigation teams to work collectively on cases, coordinate and also speed up the process by suggesting logical suspects based on data provided.

IV. CONCLUSION

The need for a computerized platform for crime record management cannot be overemphasized. The criminal investigation tracker enhances proper and efficient management of criminal records, thereby helping in making informed decisions and improving reliability thus improving law enforcement operation. This results in lower crime rate in the country thereby increasing national security.

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