



## Crime-Softech System for Sewagram Police Station

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### ABSTRACT:

*To provide the excellent and efficient services to the police department, the proposed system introduces one innovative idea for the Police Station named as “ERP BASED CMS SYSTEM FOR SEWAGRAM POLICE STATION”. The existing systems used by Sewagram Police Station is fully complex with manual work, it takes to much efforts to find particular records of a criminal and there may be possibility to loss any record which is written on particular paper. These records are therefore susceptible to destruction from pests and uncensored manipulation by both authorized and unauthorized person. This crude method has resulted in problems in the areas of authenticity, security, retrieval, storage, and exchange of information. The proposed interface is used to extract useful information from the vast crime database maintained by Police Station, find criminal records using crime data mining techniques such as clustering.*

**Keywords:** Crime Data Mining; Police System; First Information Report (FIR); Clustering.

### INTRODUCTION

To provide the excellent and efficient services to the police department, the proposed system introduces one innovative idea for the SEWAGRAM POLICE STATION, WARDHA, named as “CRIME-SOFTECH”. Certain proponents have asserted that crime which is a violation against laws of the society, is integral to the human nature and hence the society can never be completely free from it. Modern society is characterized by increasing levels of risk posed by internal and external security threats. Within this context, security driven by technology is increasingly being used by government, corporate bodies and individuals to monitor and reduce risk. The widely employed method is the manual process. This approach entails the use of paper files in the documentation of criminal information. A

complainant fills in a First Information Report [FIR] form which includes his or her statement concerning the accused. When the accused is brought in, their details are handwritten into case files. Prior to the advent of computers, these files were kept in wooden or metal wardrobes under lock and key. This was susceptible to damage by pest and unfavorable environmental conditions. In recent years, as a result of the global rise in application of computers in various aspects of life, desktop applications such as Microsoft Excel were adopted, thereby causing the approach to become both manual and slightly computerized in Nigeria. However, this method of record keeping results in inconsistencies, wastage of disk space and poor control and coordination of data.



The proposed system enhances the crime recording operations of the police department. The database is the basis for all actions in the system and can be easily updated and used to aid in all of the system's processes, that is, all of the required information is stored in one central location and thus is easily accessible. This is a more effective storage method than a paper-based file system. In addition to the functions highlighted above, the system performs the basic functions of storage, retrieval and manipulation of crime and criminal data and information[1].

### PROBLEM DEFINITION

- In the existing system, all the database of police officers and criminals are handled manually.
- As police stations are maintaining the record in the files it is headache to search a particular record.
- Records are maintains in file so there is possibility to get damage/stolen by others.
- In the existing system, identification of unknown person cannot be foundeasily.
- Lot of space is required to store all the details of the criminals and the complaints.
- Data is spread across a number of record books, which have to be manually integrated to arrive at a solution.
- The system is prone to human errors. Detection of errors is a difficult task since everything is done manually.

- There is no security of data. Anyone can view through the data concerning the activities of the Consultancy.
- Any modification to the data requires searching through all the records and then making the relevant changes.
- Also, the above mentioned processes are very time consuming.

### OBJECTIVES

CRIME-SOFTECH is intended to provide total computerized information system support for the work of the police. Its primary activities are not transparency-related, but help provide police officers with information on criminal cases and on criminals.

The proposed system will overcome the problem likely:

- To maintain the database of police officers, it will be helpful to know about the officers of particular station. The detailed information of the police officers can be filled in it.
- To maintain secret records, regarding the high profile cases, sensitive information regarding murders/criminals officers and witness who are involved in sensitive cases.
- To maintain the database of criminals, it will helpful to know about the criminals by his/her crime. The detailed information of the criminals can be filled in it.
- To count the number of crimes, it will help to know how many cases are solved in the recent past years.



- To keep the record/status of current case, on the investigation process, as the case solved the relevant data can be updated.
- To search any record effectively, which is useful to find out a particular data entry in the database

### PROJECT ANALYSIS:

The proposed system is categorized into five modules:

#### 1. Registration Module:

The registration module contains the personal details along with user name and password. Before log-in user should register in the system with user-name, password, biometrics finger prints can be done at time of registration which will be used at the time of authorization. Both level 1 and level 2 officers need to register for the further use of this system. The registration is very confidential because of it contains user-name and password. Once user registered with this system then there is no need to register again.

#### 2. Log-in Module:

The log-in module is the second module from which the working of the system will be started. This module will be used by level1 and level2 officers. The level 1 officer are those who can modify the whole database who can do the changes as per the requirements and level2 officers are those who cannot do any changes or modification in database but they can only view or access this

database for their investigation. To use this system both level1 and level2 officers needs to log-in the system first and for log-in the system user must be registered with user-name and password to conform the identification.

#### 3. Data entry Module:

The third module of the proposed system is Data entry module. As there are three databases viz. database of police officers, criminals, secrets, the new entry must be entered by level1 officers to store related data. This information includes the details regarding to the police officers, criminals and about the secrets.

#### 4. Selection Module:

The forth module of the proposed system is the selection module. This module is for selecting a single option from three databases viz. database of police officers, criminals and secrets. Any other sub-functions will be included in this module.

#### 5. Searching Module:

The fifth module of the proposed system is searching module. This module is used for the searching of any data records from three databases available in the proposed system. The searching module gives the quick results to search a particular data with the whole details.

### IMPLEMENTATION METHODOLOGY



The model used for proposed system is the Waterfall model of software development life cycle. This model follows a sequential order which ensures that a phase is completed before another phase begins. This system model emphasizes planning in early stages, is used in projects where all the system requirements are known and in addition, its intensive documentation and planning make it work well for projects in which quality control is a major concern.

The stages of the waterfall model adopted by the proposed system include:

### 1. Requirements analysis:

This phase entails gathering of requirements from users of the system. The requirements are collected in a requirements specification document. The functional requirements highlight the specific functions the system should be able to carry out. Pertaining to the CRIME-SOFTECH, the system should:

- i. Add users (police officers and background screening companies) and assign them their different level of privileges
- ii. Validate user login details and ensure user-level privileges to information.
- iii. Store and retrieve information about crime and criminals.
- iv. Perform search functions based on some specified criteria's.
- v. Perform crime analysis and statistics as well as to generate adequate reports.
- vi. Generate criminal's report.

### 2. System Analysis and Design:

The requirement specifications from the first phase are studied in this phase and

the system design is conducted. Analysis of existing system is also carried out in this phase; the limitations of the existing system are analyzed and improved upon. Design tools used for this project include: i. SQL-Server 2010, ii. VB.NET.

### 3. Implementation:

The CRIME-SOFTECH will be implemented using VB.NET for the graphical user interface. SQL-Sever 2010 will be used in designing a robust database.

### 4. Testing:

All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration, the entire system is tested for any faults and failures.

### 5. Deployment of system:

Once the functional and non-functional testing is done, the product is deployed in the customer environment or released into the market. The proposed system is installed in the new environment and the transition phase from the old environment is monitored. This stage involves training of the officers that will be given the privilege of operating the system, populating the database with existing records, and converting such data.

### 6. Maintenance:

At this phase, issues arising on deployment the client environment will be fixed. To fix these issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment[4].



## Preliminary Investigation

The first step in the system development life cycle is the identification of a need. This is a user's request to change, improve or enhance an existing system. Because there is likely to be a stream of such requests, standard procedures have been established to deal with them. The preliminary investigation is one way of handling this. The objective is to determine whether the request is valid and

feasible before a recommendation is reached. The user request identifies the need for change and authorizes the preliminary investigation. It may undergo several modifications before it becomes written commitment. Once the request is accessed to, the following activities are carried out: background investigation, fact-finding and analysis, and presentation of results called project proposal[4].

## SYSTEM DESIGN

### Architecture:

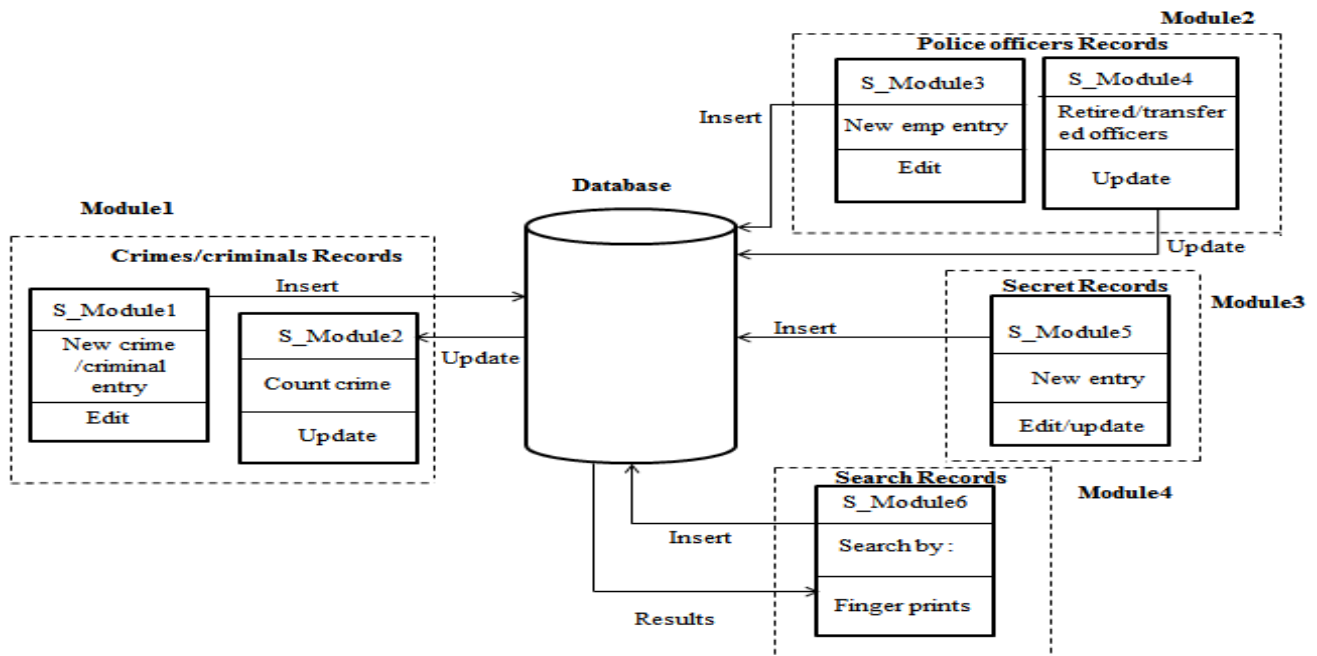


Fig.6.1 Architecture of Proposed System





## System Flow Diagram:

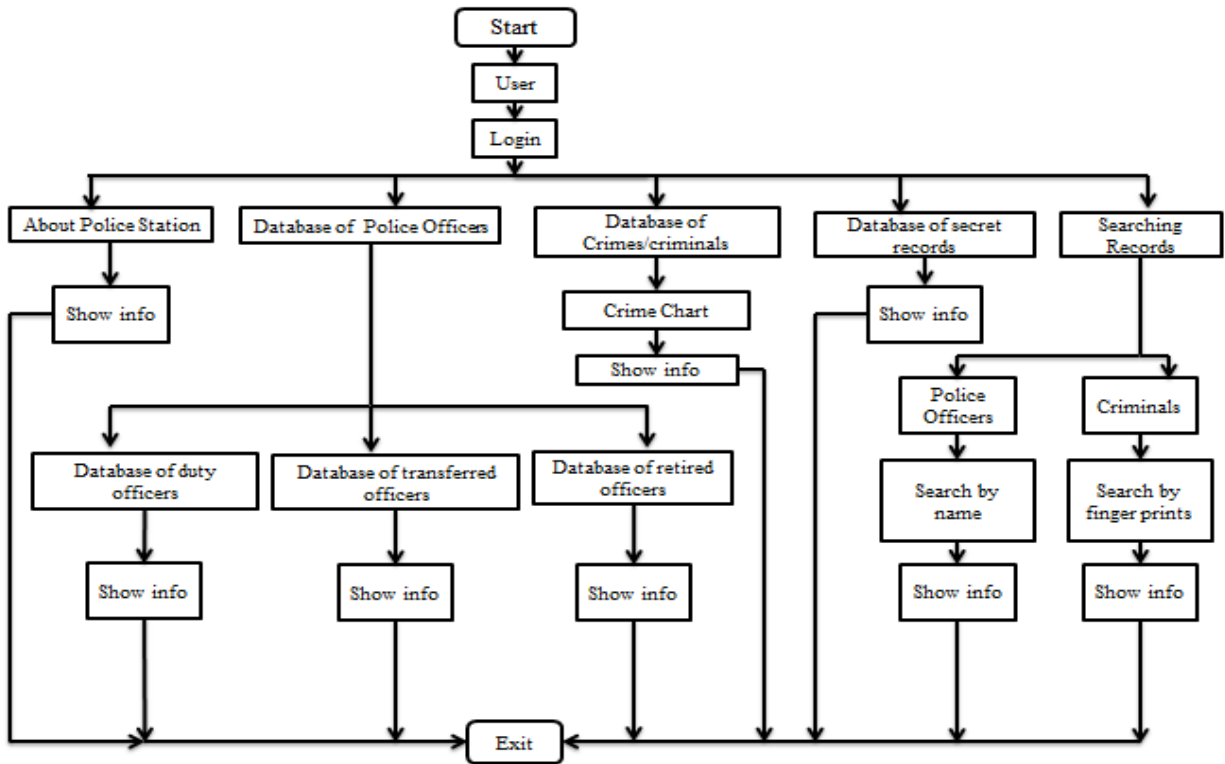


Fig.6.2 System Flow Diagram

## CONCLUSION

Implementing a system for investigating crimes by keeping records of all the members regarding different departments, current case and other information that can be accessed in less time which reduces human effort. The proposed system enhances the crime recording operations of the police department. The database is the basis for all actions in the system and can be easily updated and used to aid in all of the system's processes, that is, all of the required information is stored in one central location and thus is easily accessible. This is a more effective storage method than a paper-based file system. The need for a computerized platform for crime record

management cannot be overemphasized. The "CRIME-SOFTECH" enhances proper and efficient management of criminal records by the Police Department, Wardha, thereby helping in making decisions and improving reliability, thus improving law enforcement operations.

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