

## **ABSTRACT**

**Topic: - ECHO - Online Crime Reporting System**

**Submitted by: Sudeesh E S**

**Roll No:42**

**RMCA, SEM3**

# **Title: Online Crime Reporting System**

## **Abstract:**

The Online Crime Reporting System using Python Django is a web-based platform designed to empower individuals to report criminal activities and incidents in a convenient and efficient manner. This project aims to bridge the gap between the general public and law enforcement in Kottayam district, ensuring a seamless process for reporting and addressing crimes. The system provides an easy-to-use interface where users can submit detailed information about criminal incidents, suspicious activities, or safety concerns.

The system offers several key features, including user registration and management, and administrative interfaces for Admin. Upon registration, users can log in securely and submit comprehensive details related to the incident, such as location, time, descriptions, and even multimedia evidence like photos. These reports are then stored in a centralized database, ensuring data integrity and easy access. The admin is equipped with a dedicated administrative panel where they can review, prioritize, and manage reported incidents.

The project leverages the Django framework, which provides a robust foundation for building secure and scalable web applications. Django's authentication system ensures user privacy and data protection. Furthermore, the project focuses on creating an intuitive and user-friendly interface, making it accessible to individuals of all technical backgrounds.

## **Underlying Technologies**

**Front End:** Html, CSS

**Back End:** Python Django

**Database:** Sqlite3

## **GENERAL FUNCTIONALITIES**

### **1. User Registration and Authentication:**

- ❖ Allow users to create accounts by providing necessary information.
- ❖ Implement secure authentication mechanisms to protect user accounts and data.
- ❖ Notify users about the status and progress of their reported incidents.

### **2. Incident Submission:**

- ❖ Provide a user-friendly form for reporting incidents, with fields for incident details such as location, date, time, description, and any supporting media (photos, videos).
- ❖ Validate and sanitize user inputs to ensure accurate and reliable information.

### **3. Incident Categorization:**

- ❖ Allow users to categorize the type of incident (e.g., theft, assault, vandalism) to help law enforcement allocate resources effectively.

### **4. User Dashboard:**

- ❖ Provide users with a personalized dashboard where they can view their submitted incident reports, track their status, and access relevant updates.

### **5. Administrative Interface:**

- ❖ Develop an administrative panel for law enforcement personnel to review, manage, and prioritize reported incidents.
- ❖ Enable filtering and searching of incidents based on various criteria.

### **6. Privacy and Security:**

- ❖ Implement proper data security measures to protect user data and sensitive incident information.
- ❖ Provide options for users to report incidents anonymously if desired.

### **7. Multimedia Handling:**

- ❖ Support the uploading and storage of multimedia evidence (photos) along with incident reports.
- ❖ Ensure proper handling and display of multimedia content.

## **MINI PROJECT**

### **Admin**

- ❖ **Login:** Admin can login in his account using id and password.
- ❖ Admin can update his account, change password and logout.
- ❖ Dashboard for Admin User
- ❖ **Manage Criminal**
  - Adding new criminal
  - Edit the existing criminal
  - View details of the criminal

- Listing of all criminal
- Listing most wanted criminals

#### ❖ **Manage Category of Crime**

- Adding new crime category
- Edit the exiting crime
- View details of the Crime
- List of crime category

#### ❖ **Manage User**

- Adding new user
- Edit the exiting user
- View details of the User
- Listing of all User

#### ❖ **Manage Crime**

- Adding new crime
- Edit the exiting case update crime status
- View details of the crime
- Listing of all crimes

### **User**

- ❖ **User Registration:** User has to register to file complaints, crimes or missing reports.
- ❖ **User Login:** User can login to the system using his/her credentials to file and check status of his/her complaints or missing reports.
- ❖ **Case:** As per category of crime case should be added and provide a picture, if he has one related to the crime, also can check the status of crimes he has filed.
- ❖ **Missing Persons:** User can enter all the details of the person with a photo.
- ❖ **Without Login:** User can check for crimes against the pin code provide by the user.
- ❖ User can view his filed cases (history).
- ❖ User can update his account details
- ❖ User feedback

- ❖ Change password
- ❖ User logout

### **Law Enforcement Departments**

- ❖ **Registration:** need to register to the system
- ❖ **Login:** login to the system using id and password.
- ❖ **Dashboard:** dashboard where they can view their submitted incident reports, track their status, and access relevant updates.
- ❖ Manage law enforcement officers.
- ❖ **Case Assignment:** Allow administrators to assign incidents to specific law enforcement officers or investigators based on their expertise and availability.
- ❖ Add new crimes, cases and criminals.

### **Law Enforcement Officer**

- ❖ **Registration:** registration using credentials
- ❖ **Login:** login using id and password.
- ❖ View and accept cases assigned to them
- ❖ Update assigned cases..

### **Visitor**

- ❖ Allows unregistered users to see the crime-news which can be updated by the admin.
- ❖ View crimes in their locality by entering their pin code.

# **MAIN PROJECT**

## **Underlying Technologies**

**Front End:** Html, CSS

**Back End:** Python Django

**Database:** Sqlite3/MongoDB

## **Admin**

### **❖ Manage Reports**

- Report of all Criminals
- Report of all Crimes that are reported
- Report of all Cases
- Report of all Employees

❖ **Search:** Provide administrators with advanced search and filtering capabilities to quickly locate.

❖ **Data Management:** Allow administrators to manage the data stored in the system, including archiving or deleting old incidents.

## **Law Enforcement Departments**

### **❖ Manage Reports**

- Criminal Report
- Case Report
- Case Report

❖ **Review User Feedback:** Allow employees to review user feedback about incidents, investigation experiences, and suggestions for improvements.

❖ **Case Search:** Provide advanced search and filtering capabilities to quickly locate specific incidents assigned to them.

❖ **Multimedia Evidence:** Provide a dedicated space for to view, manage, and analyze multimedia evidence (photos, videos) related to incidents.

- ❖ **Evidence Upload:** Allows to upload additional evidence collected during the investigation.
- ❖ Include a help or support section for users encountering issues or needing assistance.

## **Law Enforcement Officer**

- ❖ **Data Analytics and Reporting:**
  - **Generate Reports:** Provide tools for generating detailed reports summarizing incident findings, outcomes, and trends.
- ❖ **Evidence Upload:** Allows to upload additional evidence collected during the investigation.
- ❖ **User Interaction:** Facilitate communication between officers and users who reported incidents for additional information, clarifications, or updates.
- ❖ **Internal Messaging:** Allow officers to collaborate with other officers or investigators regarding specific incidents

### **Anonymous Reporting Channels:**

Provide a secure and anonymous reporting channel for users who wish to report incidents without revealing their identity.

### **Integration with Emergency Services:**

Enable users to escalate incidents to emergency services with a single click, especially for situations requiring immediate attention.

### **Real-time Chat Support:**

Integrate a real-time chat feature that allows users to interact with law enforcement or support staff in real-time for immediate assistance.

## **Machine Learning Modules on Consideration:**

1. **Face Recognition:** user of witness of the crime ca give the physical information of criminal.

2. **Incident Classification:** Implement a basic text classification model using techniques like Naive Bayes or Logistic Regression to categorize incident descriptions into predefined categories (e.g., theft, assault, vandalism).
3. **Keyword Highlighting:** Implement a feature that highlights key phrases in incident descriptions, aiding law enforcement in quickly identifying relevant information.