

Crime Awareness and Registration System

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ABSTRACT

India has consistently demonstrated resilience in addressing challenges related to crime, with a commitment to improving its judicial system and enhancing public awareness. While the country has faced issues with crime rates, there is a growing recognition of the potential for early prevention and detection through efficient systems. Efforts are underway to dispel negative perceptions and misconceptions about the judicial system and law enforcement agencies, with a focus on encouraging greater reporting of crimes. Steps are being taken to improve accessibility to services and ensure the integrity of records. Moreover, initiatives to educate citizens about their rights and laws are empowering individuals to contribute positively to crime prevention efforts. As India continues to prioritize these measures, there is optimism for building a safer and more informed society, supported by effective communication channels between citizens and authorities.

Keywords:- Chatbot, Societal Safety, Communication, Reporting, NLP.

I. Introduction

This system has Crime Registration and filing complaints through Chatbot. It has real time notification alerts related to crime. A Chatbot is as important as the other static systems. Core function of the system is to handle crime related queries and respond with a user understandable manner. Chatbot replies with the text or with the other informational representational formats. Information which will be provided by the chatbot goes through various steps. It also contains complaint tracking by its location using real time maps where police can easily track from where a complaint is filled. Dashboard is provided for police to verify the complaints and update the status of the complaint.

II. Existing System

There are two ways to file our complaint in a country. These types have been practiced for several years now. One of them includes physically visiting the police station. Other one is registering online and communicating through the available ways at convenience.

A. In-Person Reporting

This method is widely recognized and commonly employed for lodging complaints. Typically, individuals visit a police station or law enforcement officer to personally provide a statement if they are a victim, or they may file a complaint on behalf of others under specific conditions. Subsequently, the police take action in accordance with legal procedures. Following this initial step, the victim or their representative must make multiple visits to the police station or meet with officers as part of the investigative process, during which the police retain full control,

This method involves direct human interaction, ensuring the verification of individuals in an era marked by advancements in artificial intelligence, cybercrime, and related technologies capable of identity falsification. Apart from the duration of the investigation, this process can be time-consuming and burdensome for victims.

In numerous instances, victims encounter difficulties or harassment from authorities, resulting in delays or even injustices as they navigate through the procedural hurdles repeatedly. Statistics indicate that a significant percentage of victims find this ordeal inconvenient and disempowering. The depicted cycle highlights the potential need for victims to make recurring visits for further proceedings.

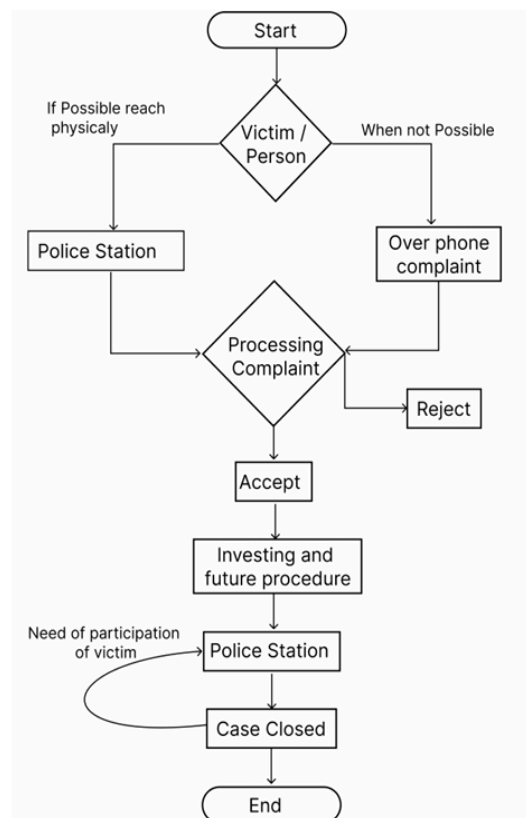


Fig no 1. Flow Diagram

Alternatively, there exists the option of lodging complaints via phone calls, though its utilization is limited within the country due to concerns regarding tampering, surveillance, resource constraints, and most importantly, verification. This aspect assumes significance in investigations where personal contact with the victim is often necessary. Consequently, victims may find themselves entangled in this cycle multiple times before achieving justice, making it an imperfect solution in many instances.

B. Online Registration

It is evident that the filing of a First Information Report (FIR) can only be done online, whereas for other procedures, individuals are compelled to repeat the same steps repeatedly. However, the online registration system lacks uniformity across the country, with each state, district, and region employing different portals for the same activity. Furthermore, these portals often lack interactivity and user-friendliness, rendering a straightforward process needlessly complex. Consequently, victims often opt for the offline route to fulfill this requirement. Many existing systems are solely responsible for initial report filing, lacking ongoing interaction with the victim or any management system facilitating communication between users and authorities. These service gaps underscore the need for a user-friendly and secure system, as proposed by our initiative, to address these deficiencies effectively.

III. Purpose System Architecture

In the existing system we have a loop of processes for further investigation but this process can be easy with an online interaction system for user and police which will require proper authentication and validation. Not just interaction but the system will also provide online registration system on which user can file complaint these complaints can be view on the other side by police and proper contact can be done with interaction system or any other resources if police

needs to. Other than that system has Chatbot which solves any queries regarding the criminal law it can be also used.

As an information system as the Chatbot is an interactive and user friendly system built with different machine learning approaches has ability to recognize the natural language with NLP and process it and give the output in natural language. These chatbots are mainly used by companies where they assist the users on the website with any queries regarding the business. We are using the same logic to complete our business purpose which is to provide information about crime laws and related information about it.

IV. Proposed System

The current system entails a series of procedural loops for further investigation, which could be streamlined with an online interaction platform connecting users and law enforcement agencies. Such a system would require robust authentication and validation mechanisms. Beyond facilitating interaction, this platform would feature an online registration system enabling users to file complaints, which police authorities can access and engage with through the interaction system or other resources as needed. Additionally, our system incorporates a Chatbot designed to address queries concerning criminal law. Leveraging various machine learning techniques, including natural language processing (NLP), this Chatbot serves as an interactive and user-friendly tool capable

of understanding and responding to natural language inputs. Comparable to those deployed by businesses to assist website users, our Chatbot serves the dual purpose of providing information on crime laws and related matters efficiently and effectively.

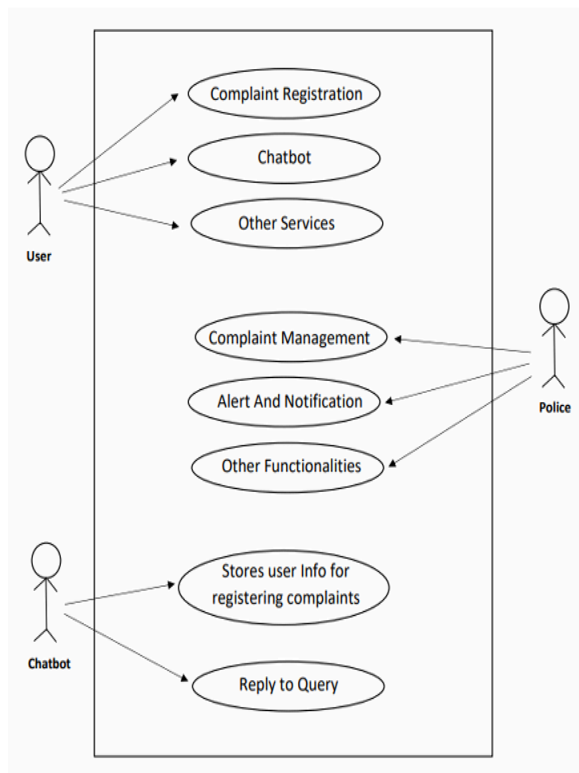


Fig no 2. Block Diagram

A. Registration and interaction

- I. When a user decides to file a complaint, the user can go to the chatbot and file a complaint with the help of the chatbot.
- II. Enter all details about the crime which mainly includes victim, accused location, type, etc. and submit.
- III. These complaints go to the other side to police department. Now

police are responsible for responding to complaints. After the verification and other procedures done police can interact with the user with an interaction system provided. Or contact in their own way and change the status of the complaint accordingly.

- IV. .System also provides features to attach the media files, links and documents. Which will help police to investigate.
- V. Interaction system will be robust and format as all the messages and responses will be recorded for security.

B. Chatbot

The utilization of the Chatbot follows a straightforward process:

- I. The user inputs their query into the Chatbot, which then identifies the specific scenario and determines the category of information required.
- II. The Chatbot promptly furnishes comprehensive information pertinent to the user's query, focusing exclusively on crime-related data. This includes detailed descriptions of relevant laws, statistical data, precautionary measures, subsequent steps to be taken, and emergency helplines.
- III. Depending on the nature of the query, the Chatbot discerns whether the user intends to file a complaint or initiate any actions against a crime. It then provides references to the registration system and facilitates registration within the

same interaction.

Through this process, users gain access to relevant laws, enabling them to take appropriate actions when necessary, thereby potentially reducing the incidence of crime. While the system doesn't entirely replace traditional methods of reporting, it significantly diminishes their necessity. The platform also boasts a user-friendly and interactive complaint portal, which streamlines cumbersome processes, saving time and effort for both victims and law enforcement personnel. With its primary function being to alleviate human efforts and provide comprehensive information, the Chatbot serves as a valuable tool in both scenarios.

C. Other Functionalities and Services

The system can also be used to reduce the gap between the authority and citizens as well.

- I. An Alert system can be used by the authority/police officers to give any alters about the crime in areas. Users can be notified with alerts.
- II. System can also news related to the surroundings of the citizens which will make them more aware.

D. Police end

- I. Police get a complaint where they can validate the complaint, ask for more information from the user and accept or reject.
- II. Generate alerts in order to make citizens aware about particular activity
- III. Can control the missing persons

and belongings section.

- IV. Interact with the user when he/she needs to.

V. Drawbacks

Dependency on Technology:

The reliance on cutting-edge technologies like natural language processing and machine learning may introduce challenges related to technical glitches, system errors, or algorithm biases. Users might experience frustration or misinformation if these issues are not promptly addressed.

Security and Privacy Issues:

The paragraph briefly mentions a commitment to data accuracy, privacy, and security. However, without specific details, it's unclear how robust the system is in safeguarding user data. Addressing potential privacy concerns and ensuring secure data handling should be a priority.

VI. Snapshots of Working Project

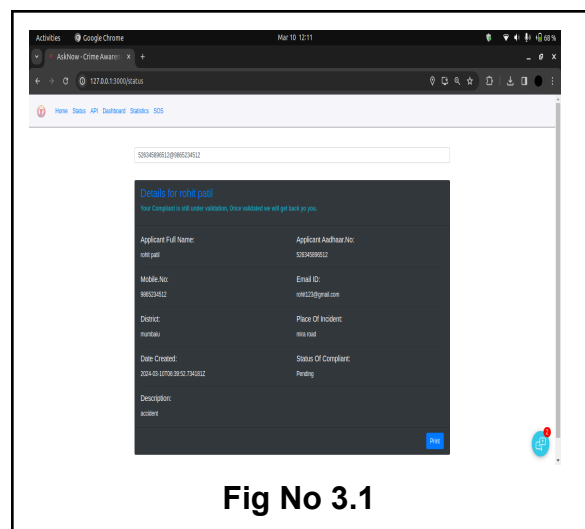


Fig No 3.1

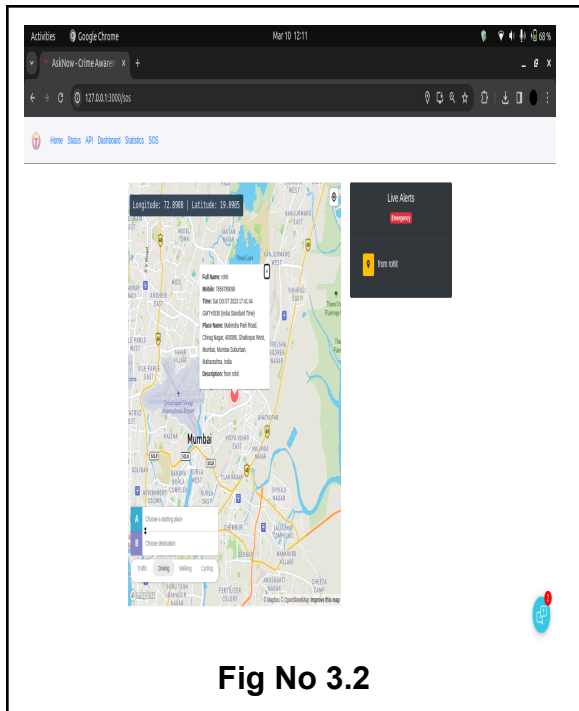


Fig No 3.2

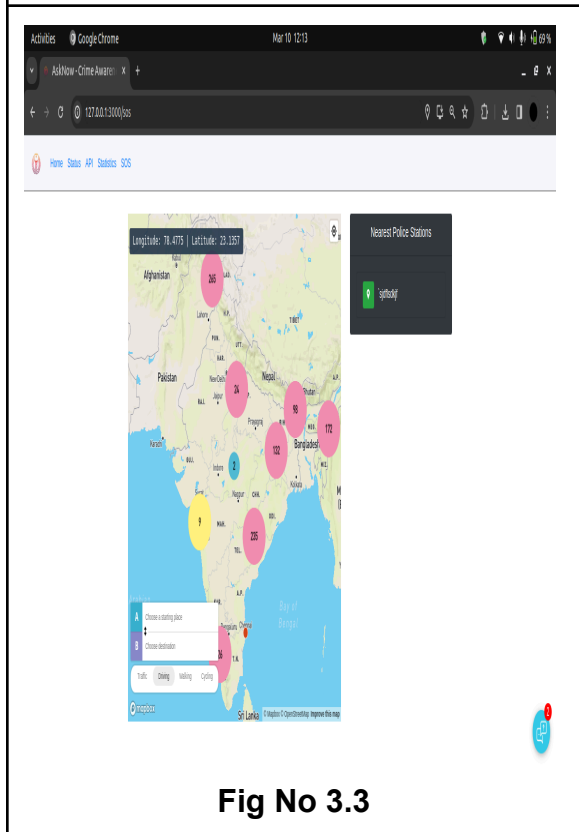


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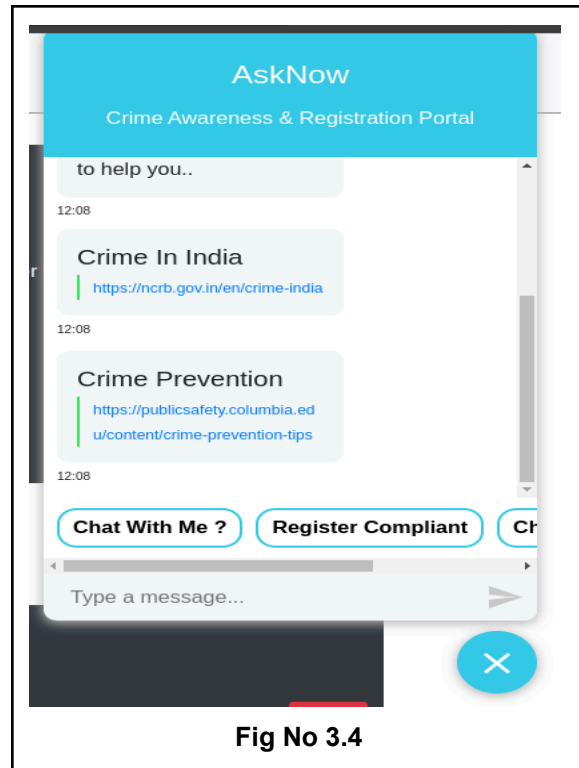


Fig No 3.4

VI. Conclusion

In conclusion, the existing system architecture for a crime awareness chatbot represents a comprehensive approach to educate and empower users in crime prevention and safety. With its user-friendly interface, secure data handling, and integration with external APIs, the architecture provides an effective and engaging user experience. Prioritizing data accuracy, privacy, and user security, it ensures access to reliable crime-related information and resources. Furthermore, the integration of cutting-edge technologies, such as natural language processing and machine learning algorithms, enhances the chatbot's ability to understand and respond to user queries accurately. By fostering a community-driven approach through

feedback mechanisms and content management systems, the architecture continuously evolves to meet user needs, making it a valuable tool in promoting awareness and preparedness in the domain of crime prevention.

VII. References

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