A Web Application to Report Drug Trafficking Crime Anonymously

Dr. P. Shobha Rani
Professor
Department of CSE
R.M.D. Engineering College
Kavarapettai, Tiruvallur
psr.cse@rmd.ac.in

Roslin Dayana. K
Assistant Professor
Department of CSE
R.M.D. Engineering College
Kavarapettai, Tiruvallur
krd.cse@rmd.ac.in

Ragav Bharadwaj S
Student
Department of CSE
R.M.D. Engineering College
Kavarapettai, Tiruvallur
ucs19318@rmd.ac.in

Praveen Kumar S
Student
Department of CSE
R.M.D. Engineering College
Kavarapettai, Tiruvallur
ucs19312@rmd.ac.in

Kothuri Sai Sumanth
Student
Department of CSE
R.M.D. Engineering College
Kavarapettai, Tiruvallur
ucs19221@rmd.ac.in

Abstract — **The prevalence of drug-related offenses is an issue of utmost concern in numerous global communities. These illicit deeds cause great detriment to individuals and instigate harm on the social structure as a whole. The spectrum extends from possession and trafficking, to violent acts committed while under the influence of drugs. This paper describes the creation of a web-based tool permits individuals to disclose drug-related offenses without divulging their identity, ensuring safety and security. This initiative seeks to boost the number of reports by offering an anonymous reporting system, which can advance Narcotics Department access to accurate information on this issue.**

Keywords —*Anonymous Reporting, Drug Trafficking, Narcotics Department, Admin Panel.*

I. INTRODUCTION

Drug-related offenses may remain unreported due to distrust in the authorities. There are people who doubt that their complaints will be taken seriously or fear negative consequences like being detained or deported if they do take action. Lack of trust is another reason why drug-relatedcrimes can go unnoticed by officials, as individuals believe nothing significant would stem from reporting such events and could lead to unwanted repercussions.

Those who witness or are victims of such crimes may hesitate to report, anxious that those involved in illicit activity might seek revenge against them or their loved ones. This worry can be particularly potent within areas where narcotics violations occur frequently and have been linked with forceful behaviour or bullying actions by wrongdoers' companions.

II. OBJECTIVE

Narcotics Department strive ceaselessly against such criminal activity. However, many instances remain unreported or unnoticed due either to anxiety over retaliation, or loss of faith in authorities' ability to act impartially.

Our objective is to create a secure and dependable system that enables people to anonymously report drug-related offenses. This reporting platform lets individuals disclose criminal activity without any concerns about backlash or negative outcomes, while simultaneously providing Narcotics Department with essential information on the scale of the problem at hand so they can take suitable actiontowards stopping it. Our objective is to construct web applications that are simple, safe and user-friendly for everyone's convenience. By facilitating an anonymous space where concerned members of society might share their experiences freely, officials in charge can formulate strategies based on more accurate and comprehensive data sets showcasing how widespread this issue really is within our community.

III. LITERTATURE REVIEW

The significance of anonymous reporting in preventing drug-related crimes has been underlined by several research.

According to one study by Schultze-Krumbholz et al. (2016), anonymous reporting of bullying occurrences in schools increased the likelihood that such instances would be reported, decreased the fear of reprisal, and improved the quality of such reports. Similar to this, anonymous reporting of drug-related offences may persuade more people to do so and lessen their fear of reprisal, resulting in more accurate reporting and more efficient law enforcement.

According to "A Comparative Research on Web Application Vulnerabilities and Security" by S. S. Pradhan and S. K. Rath. In this study, the authors look into web application security flaws and vulnerabilities, such as SQL injection, cross-site scripting, and flawed session and authentication management.

Web-based System for Public Crime Reporting and Monitoring, by K. Kasemsap and others. The authors of this paper describe a web-based system for tracking and reporting public crimes. The system's features and capabilities are covered, including how real-time crime statistics and monitoring are provided by using database management and GIS technologies.

IV. FEASIBILITY STUDY

Feasibility study is made to see if the systems on completion will serve the purpose of the association for the quantum of work, trouble and the time that spend on it. Feasibility study lets the inventor prevision the future of the systems and the utility. The document provides the feasibility of the systems that's being designed and that were considered veritably precisely during the feasibility study of this design similar as Technical, Economic, Operational and Legal feasibilities.

Technical Feasibility:

This aspect of the feasibility study focuses on the specialized aspects of the design. It assesses whether the needed technologies and structure are accessible. The specialized feasibility of the design is high, as the technologies exercised, similar as JSP, Servlets, JavaScript, and MySQL, are extensively exercised and have been proven to be operative in developing analogous trap operation.

Economic Feasibility:

This aspect of the feasibility study focuses on the profitable aspects of the design. It assesses whether the development, deployment, and maintenance of the system are economically feasible. The economic feasibility of the design is high, as the cost of developing and planting the web operation is fairly low. The needed tackle and software are readily available, and the development platoon can be composed of a many inventors. likewise, the cost of maintaining and streamlining the system is also fairly low.

Operational Feasibility:

This aspect of the feasibility study focuses on the functional aspects of the design. It assesses whether the system is easy to use and whether the users have the necessary chops and knowledge to use it effectively. The functional feasibility of the design is high, as the web operation is easy to use and doesn't bear any special skills. The user interface is intuitive and user-friendly, and druggies will be suitable to fluently submit their complaints.

Legal Feasibility:

This aspect of the feasibility study focuses on the legal aspects of the design. It assesses whether the design complies with all applicable laws and regulations related to privacy, data protection, and anonymous reporting of crimes. The legal feasibility of the design is dependent on compliance with all applicable laws and regulations related to privacy, data protection, and anonymous reporting of crimes. The development team must ensure that the system adheres to all legal conditions to avoid implicit legal issues.

V. SYSTEM ANALYSIS

A. Functional Requirements

- *Anonymous Reporting:* Users should be able to report drug-related offences using the report feature without having to divulge their identities.

- *Crime Type Selection:* Users should have the option to specify the sort of drug-related crime they are reporting when using the report tool. Common drug-related offences including drug trafficking, drug possession, and drug use should be among the choices.

- *Location Selection:* Users should have the option to specify the crime's location when using the report tool. Users can enter an address or choose a location using a map-based interface to accomplish this.

- *Detailed Description:* Users should be able to provide a detailed description of the crime they are reporting using the report feature.

- *Confirmation Page:* The user should be taken to a confirmation page that acknowledges their report and tells them what to do next after submitting it.

- *Notification of Narcotics Department:* The report feature needs to alert concerned authorities about the report and give them the details the user provided.

- *Reporting statistics:* The report function must to let administrators access data on the quantity and nature of reports received, their locations, and any other pertinent details.

B. Non-Functional Requirements:

- *Node Security:* The web application must make sure that user data is secure and that users who submit reports remain anonymous.

- *Performance:* A big number of users and reports must be supported by the online application.

- *Availability:* To enable users to submit reports at any time, the online application should be accessible anytime at the need of the users.

- *Accessibility:* Users with impairments, including those who use assistive technology to access the web, should be able to utilize the online application.

- *Compatibility:* In order for people to access and utilize the web application from many platforms, it must be compatible with a variety of devices and browsers.

- *Scalability:* The web application should be able to grow when more users and reports are added. By leveraging a scalable infrastructure and optimizing the code to handle massive volumes of data, this can be accomplished.

- *Maintainability:* It should be simple to update and maintain the web application. Use of clear, modular code and adherence to recommended software development principles can help achieve this.

- *Legal compliance:* The online application must abide by all rules and laws pertaining to data protection, privacy, and anonymous reporting of crimes.

C. Existing Method

The current approach for anonymously reporting drug related offences typically involves hotlines or online reporting forms on websites of relevant governmental or law enforcement organizations. For instance, the DEA's website in the USA allows the general public to report such drug-related offences. The website serves as a channel via which members of the public can send tips directly to the relevant authorities. The issue is that users must provide personal information in order to move further, which raises concerns about privacy and anonymity.

Limitations:

- The absence of anonymity in the current system is one of its key drawbacks.

- Another limitation is that the existing methods may not be user-friendly, making it difficult for users to report crimes anonymously.

- Additionally, the existing methods may not give users updates on the status of their report or allow them to follow up on their report, leaving them in the dark about what actions are being taken.

- Moreover, there can be a lack of confidence in law enforcement, which might deter users from filing anonymous reports of crimes.

D. Proposed System

The proposed approach will enable users to submit anonymous reports of drug-related offences. Users will feel protected and secure while submitting their reports as a result. It would make use of encryption to guarantee the security of all data exchanged between the user's device and the server. Also, to prevent unwanted access, all data saved in the system will be encrypted. The proposed system would have an intuitive, simple-to-use user interface. The interface will be created so that people may submit their reports without any difficulty and fast. By making sure that all reports are taken seriously and that the proper steps are done in response to each report, the suggested approach will increase user trust. Also, the system would be open and clear about its workings, telling users what happens once they make a report. The suggested system can be expanded to accommodate more users and reports. By leveraging a scalable infrastructure and optimizing the code to handle massive volumes of data, this will be accomplished. Legal compliance: The proposed system will adhere to all relevant privacy, data protection, and reporting crimes anonymously laws and regulations.

VI. SYSTEM ARCHITECTURE

Three modules—*Admin Panel, Public, and Narcotics Department*—make up this project. The Public module is where users can file complaints about drug-related crimes. These grievances will be kept in a database that can only be controlled by the admin panel. These complaints are also sent to the Drugs Department Website, where the relevant authorities can log in and view the complaints with the proper credentials. Between the Public module and the Narcotics Department module is the Admin Panel. The Narcotics Department's status and progress on complaints are visible to the public, and the public's response is made visible to the Narcotics Department via Admin panel.

A. Public

The Users can file complaints about drug-related offences through the system's Public Page feature. It is intended to be user-friendly, with a basic interface that enables users to submit complaints quickly and simply. The system's major feature is the ability for users to register complaints anonymously.

This makes it possible for people to report drug offences without being concerned about reprisals or repercussions, which can be crucial in situations where the offenders may be dangerous or have influential connections. Users can track the status of their complaints and determine whether any action has been done by checking the Public Page for updates on how their complaints are progressing. By giving them transparency and accountability, this promotes confidence between users and the system.

B. Admin

A key component of the system, the Admin Panel acts as a link between the Public and Narcotics Department modules. It is in charge of handling public complaints, sending them to the Narcotics Department, and monitoring their development. Additionally, it enables the Narcotics Department to address the grievances and provide updates on their progress, which are subsequently shared with the general public.

The Admin Panel is built with numerous layers of access control and authentication to ensure high levels of security and guard against illegal access. The Admin Panel can only be accessed by approved individuals, and depending on their position within the system, each user has a different set of permissions.

An Administrator, for instance, might have complete access to all Admin Panel capabilities, whereas a moderator might only have partial access.

C. Narcotics Department

To give Narcotics Department a single site to access and manage drug crime complaints, the Narcotics Department module was created. This module enables authorized staff to read complaints and respond to them, giving them access to the data they need to look into reported crimes and take appropriate action.

With numerous layers of access control and authentication to prevent unauthorized access, theNarcotics Department module is extremely secure. Only authorized personnel are able to access the module, and depending on their position within the system, each user hasa different set of permissions. The Narcotics Department module has been created with the goal of being extremely effective, and it includes features that let users swiftlyanalyze and reply to complaints. Users may quickly see which complaints need to be addressed right away and which can be prioritized for later evaluation thanks to the organization of complaints by status.

The system's three parts collectively offer a very efficient and user-friendly method for filing reports of drug criminal complaints. Users have a secure and reliable platform to report criminal activities because to the system's design, which places a high priority on security and anonymity.

Fig 1.1 Architecture Diagram

Fig 1.2 Sequence Diagram

Fig 1.3 Use Case Diagram

VII. METHODOLOGY

A. Working of the project

- *User registration:* Users can register and set up accounts in the web application's public module. Users can enter their contact details, including name, email address, and phone number. Users can use their credentials to log into the system after successfully registering.

- *Complaint Submission:* Users can make a complaint about drug-related offences once they have logged in. Users are able to provide information on the complaint form, including the date and time of the occurrence, its location, a description, and any other pertinent details.

- *Admin panel management of complaints:* The Admin panel is in charge of handling the user-submitted complaints. All user complaints are accessible to the admin panel, which may view, modify, or delete them as necessary. Also, the admin panel has the authority to refer concerns to the Narcotics Department for additional research.

- *Complaints access by the Narcotics Department:* The Narcotics Department has a separate login page where they may access the complaints that have been delegated to them by the admin panel. The Narcotics Department can review the complaint's specifics and take the necessary measures, such as looking into the complaint and reporting on how the investigation is going. The public module will allow the user to view any updates made by the Narcotics Department regarding the complaint's status.

B. Security & Anonymity

Any web application dealing with sensitive information, such as drug-related offences, must ensure the security and anonymity of people filing complaints. Many steps were taken in this project to guarantee the security and anonymity of users submitting concerns. To protect user data, one of the main precautions taken was to deploy encryption techniques. In order to encrypt the data sent between the user's browser and the server, SSL (Secure Socket Layer) was employed. This makes sure that any sensitive information, such login information or complaint information, is encrypted and shielded from prying eyes.

Sensitive data can be encrypted using encryption techniques like AES-256, including user passwords and complaint data. These techniques, which can be used to increase project efficiency, are supported by MySQL.

VIII. CONCLUSION

An essential weapon in the battle against drug-related crimes is the web application for anonymous reporting of crimes involving drugs. This project's implementation required the use of a number of technologies, including Java, MySQL, Bootstrap, and JavaScript, to build a safe and straightforward platform for the general public toanonymously report drug-related offences. The team waseffective in achieving the project's objectives across each of the project's phases, including requirement collecting, design,and development.
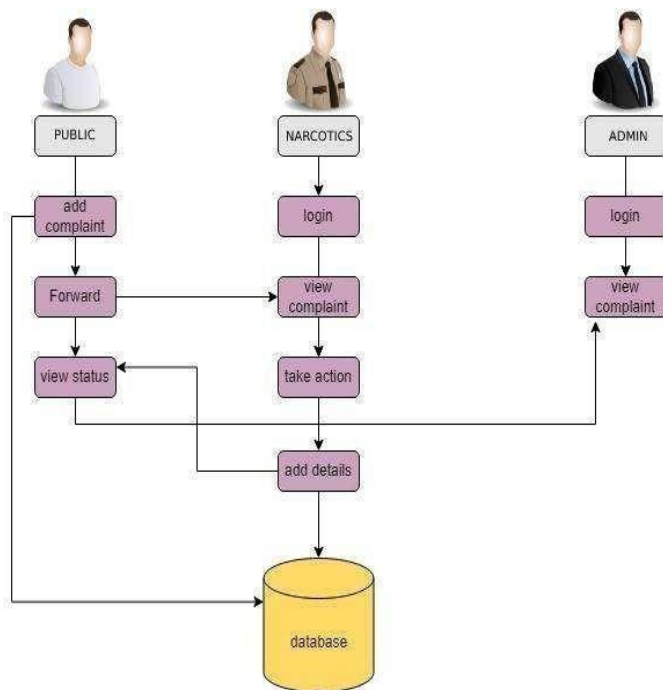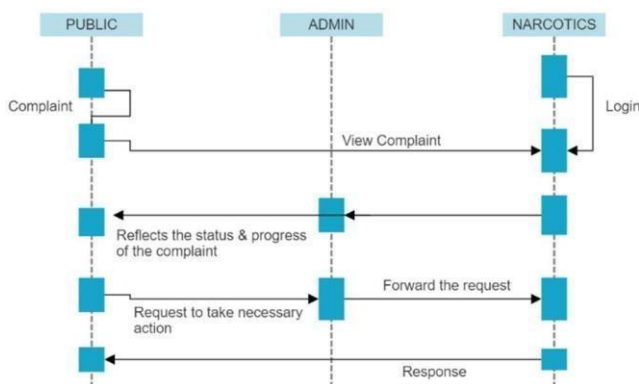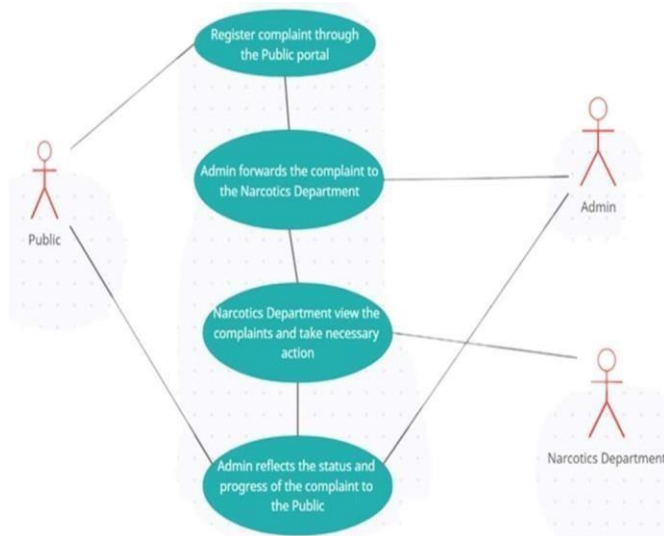
The project's implementation phase was a considerable difficulty because it called for the fusion of a number of technologies, including front-end and back-end ones. An important factor in the planning and creation of the project was the protection of user data and anonymity. By not gathering any personally identifiable information, the team further assured that users' identities remained hidden.

In conclusion, the web application for anonymously reporting drug-related offences offers a trustworthy and safe platform for members of the public to do so. Future developments might incorporate machine learning and artificial intelligence to increase the accuracy and efficacy of reporting and managing drug-related offences.

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