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System for Management of Criminal Record

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Abstract: The proposed system applies to all Police stations across the Nagpur City and specifically looks into the subject of Crime Records Management. It is well understood that Crime Prevention, Detection and Conviction of criminals depend on a highly responsive backbone of Information Management. The efficiency of the police function and the effectiveness with which it tackles crime depend on what quality of information it can derive from its existing records and how fast it can have access to it.

It is proposed to centralize Information Management in Crime for the purposes of fast and efficient sharing of critical information across all Police Stations of Nagpur City. The system will be implemented across Cities and Towns and later on, be interlinked so that a Police detective can access information across all records in the city thus helping speedy and successful completion to cases. The System would also be used to generate information for pro-active and preventive measures for fighting crime.

The project has been planned to keep records of citizens' complaints files, investigation evidence and processes with centralized storage of the database. The application for the storage of the data has been planned. Using the constructs of SQL server and all the user interfaces have been designed using the DOT Net technologies. Crime Record Management System is a web-based application. This System in the perspective of Nagpur City Police Station that uses to record crime activities of criminals.

This System for maintain records of cases of Nagpur City Police Station" project is a transformative initiative aimed at digitizing and modernizing the case management processes within the Nagpur City Police Station, Maharashtra, India. This project was conceived to address the inefficiencies and challenges inherent in manual case record-keeping, and it leverages the power of technology to enhance law enforcement operations. The primary goal of this project was to design and implement a web-based application that streamlines the recording, management, and access to all cases within the Nagpur City Police Station. Through the diligent development and deployment of this web application, significant progress has been achieved in several key areas. This application has a pleasant user interface using the Bootstrap Framework. It also consists of features and functionality.

Keywords: Centralized database, Crime Data Digitization, Law Enforcement Efficiency, SQL Server, DOT Net Technologies, Crime Prevention, Crime Detection

I. INTRODUCTION

We see that when a society or organisation is founded, the members create laws and regulations that are made by and for the members of the group. All members of that society are meant to live in peace, which is the aim of these laws and regulations. Every time a law is broken, it is referred to as a crime, and the person who does it is termed a criminal. A well-functioning law enforcement system is necessary for a peaceful existence. Have excellent facilities for law enforcement in CRMS. The widespread use of computers in many facets of life in the current day has led to the adoption of desktop and laptop programmes like Microsoft Excel, which has made the method both.

The criminal recording activities are improved by the suggested CRMS. The information regarding offenders, crimes, and system users is kept in a centralised database, which houses the data used by the CRMS. As the foundation for every system action, the database is quickly updated and used to support every system operation; that is, all necessary data is kept in one convenient location and is therefore readily available. Additionally, functions will be possible due to the centralised database's accuracy.

Criminal information record and crime report generation. 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. The crime management system can help in storing the records related to the criminals, cases, complaint record, case history and so on. This can allow a person to enter or delete the records if necessary. All these records can be maintained in a single database. Security is maintained so as to ensure that only the authorized users will have access to the system. Specifically police officers, access to a dedicated user panel. Meanwhile, only the administrator at the headquarters has privileged access to the admin panel, safeguarding sensitive functionalities. This system enhances user experience, streamlining the process of accessing and managing criminal case information. Police officers can utilize the user panel to view detailed records of criminal cases, employing features like search and filtering for quick and effective information retrieval.

Administrators at headquarters have the ability to manage the entire data landscape and add new case details using the admin panel. By effectively managing police station details, administrators can guarantee that the system contains accurate and current information. The overall integrity of the stored data is improved by this feature. One of the beneficial projects on which the police can rely will be this application. Obtaining the details of former felons might be aided by this website. Additionally, it may aid in reducing the majority of work police.

II. RESEARCH METHODOLOGY

The research methodology for a driving school website involves several key steps to ensure its effectiveness and usability. These steps include defining objectives and scope, conducting a literature review, developing user personas, conducting surveys and interviews, analyzing competitors' websites, conducting usability testing, analyzing analytics data, ensuring accessibility, and evaluating content. The research aims to improve user experience, increase conversion rates, and identify strengths, weaknesses, opportunities, and threats. User personas are created to understand the needs, preferences, and behaviors of potential users. Surveys and interviews are conducted to gather qualitative and quantitative data on preferences, expectations, and pain points related to driving school websites. Competitive analysis is conducted to identify strengths, weaknesses, opportunities, and threats, while usability testing is conducted to observe user interaction and identify usability issues. Analytics data is analyzed to understand user behavior, traffic patterns, and conversion rates, and areas need improvement. Accessibility is ensured by conducting accessibility audits and testing with assistive technologies.

Content analysis is done to evaluate the clarity, relevance, and effectiveness of the website's content, ensuring it meets user needs and is optimized for search engines. The website is iteratively designed and developed using the research insights, testing new features and designs with users. Post-launch evaluation is conducted to monitor performance and gather feedback, making

adjustments and improvements based on ongoing evaluation. By following a systematic research methodology, the driving school website can effectively meet user needs and achieve its objectives. This research aims to evaluate the effectiveness, usability, and user satisfaction of a driving school website using a mixed-methods approach. The primary objective is to assess the usability, effectiveness, and user satisfaction of the website. Secondary objectives include gathering detailed user feedback, pinpointing areas for enhancement, and benchmarking the website against industry standards and competitors.

The research questions include the intuitiveness and user-friendliness of the website navigation, the comprehensiveness of information for prospective and current students, the overall satisfaction level of users, and potential improvements based on user feedback. The research design includes a mixed-methods approach, including surveys, website analytics, and usability metrics. Data collection methods include online surveys, website analytics, interviews, focus groups, and usability testing sessions.

The sample selection includes current and prospective students, website visitors, and a statistically significant sample size. The sampling method includes random sampling for survey distribution and purposive sampling for interviews and focus groups.

Data analysis includes descriptive statistics, inferential statistics, thematic analysis, and content analysis. Ethical considerations include informed consent, confidentiality, and non-bias. The study's goal is to gain a comprehensive understanding of user experiences and identify areas for improvement.

III. PROPOSED WORK

The proposed Crime Records Management System (CRMS) will be a web-based application serving as a central hub for securely accessing and managing critical information about crimes and offenders. Utilizing SQL Server for database management and DOT Net technologies along with the Bootstrap Framework for a responsive user interface, the system ensures robust performance and user-friendliness. Key features of the CRMS include a centralized crime database, advanced search functionalities, data analytics tools, and comprehensive document management.

User management is a critical component, allowing police administrators to add new users and assign different levels of access based on their roles and responsibilities. Authorized users, including police officers and background screening agencies, will access the system through a secure login process. Background screening agencies will have limited access compared to police officers to maintain data security and integrity. The system also includes incident reporting, audit trails for accountability, and various reporting tools for compliance and internal use. Implementation will involve phases of requirement analysis, system design, development, testing, deployment, training, and ongoing maintenance and support, ensuring the system meets the needs of the Nagpur City Police and enhances their operational efficiency.

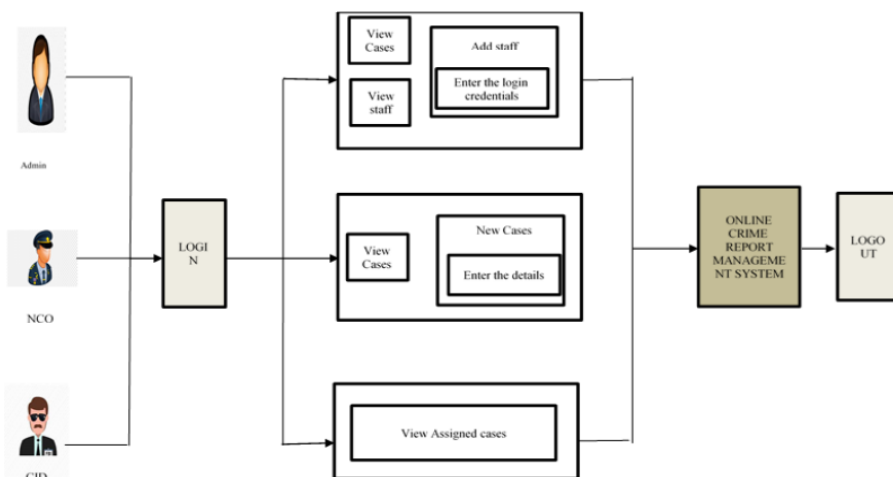


Fig 3.2 Architecture Diagram

IV. RESULTS AND DISCUSSION

The centralised and digitalized record-keeping facilitated by the Crime Records Management System (CRMS) deployment for Nagpur City Police has greatly enhanced crime data management. As a result, there are now more accurate and easily accessible data, which saves time when retrieving information and reduces human mistake. Law enforcement personnel may now concentrate on investigations because to improved operational efficiency brought about by automated workflows and user management. Strong security measures safeguard sensitive data, while audit trails guarantee accountability. These methods include role-based access restriction and data encryption. Furthermore, proactive crime analysis is made possible by data analytics technologies, which aid in strategic planning and deterrent effectiveness. In summary, the CRMS has revolutionised criminal record-keeping, enabling the police to operate with greater responsiveness and strategicness. Additionally, it establishes the foundation for upcoming improvements like mobile and database integration.

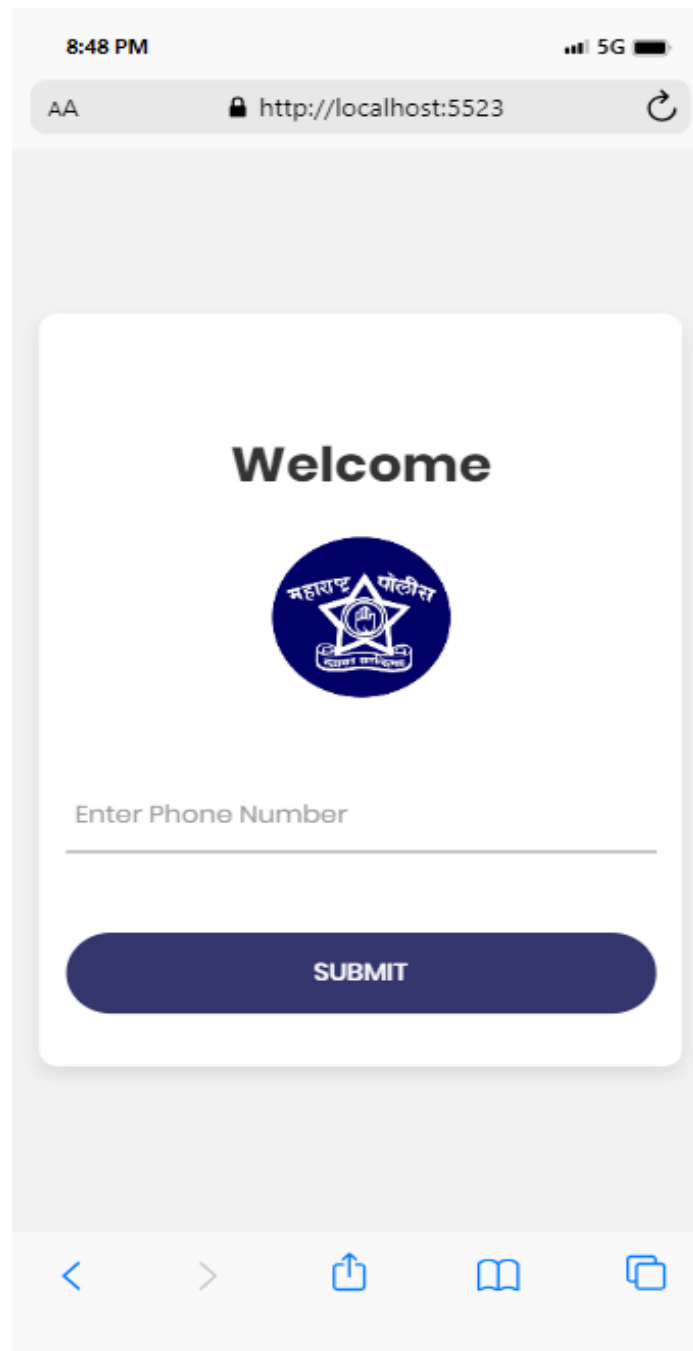


Fig.1.User Login Page

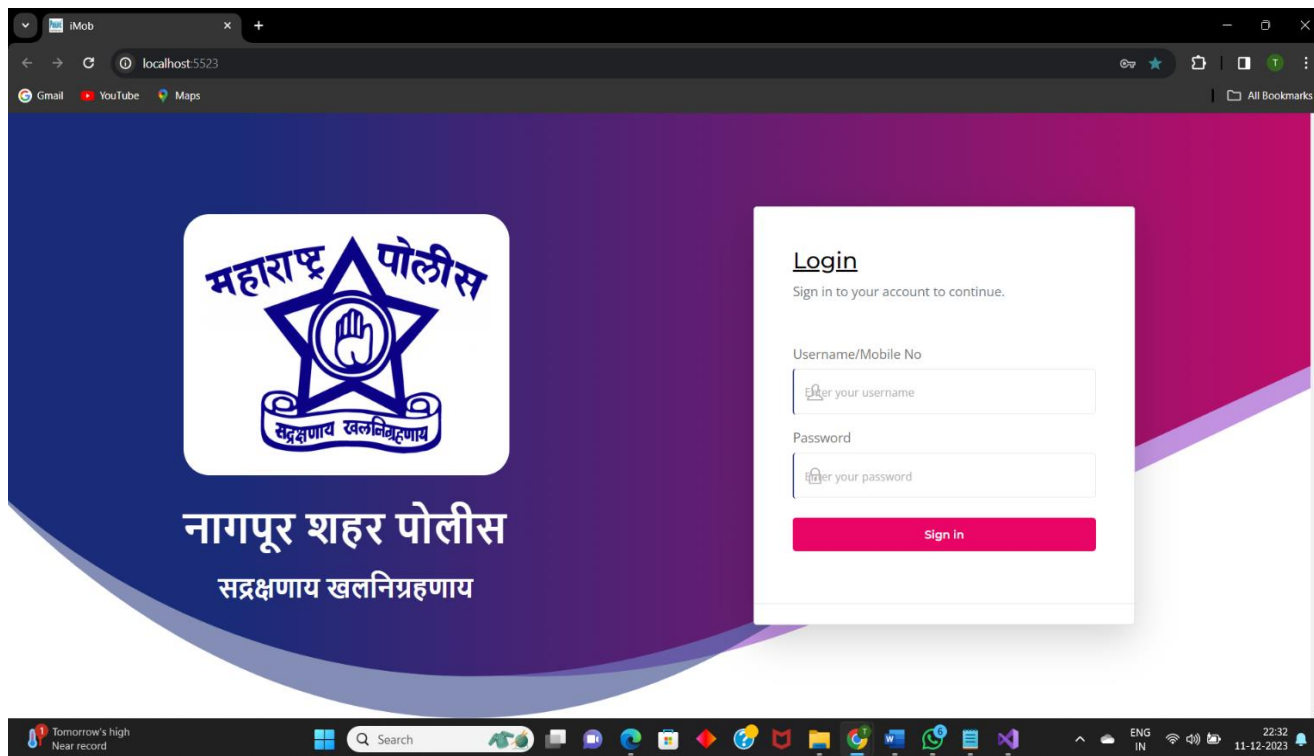


Fig.2.Admin Login Page

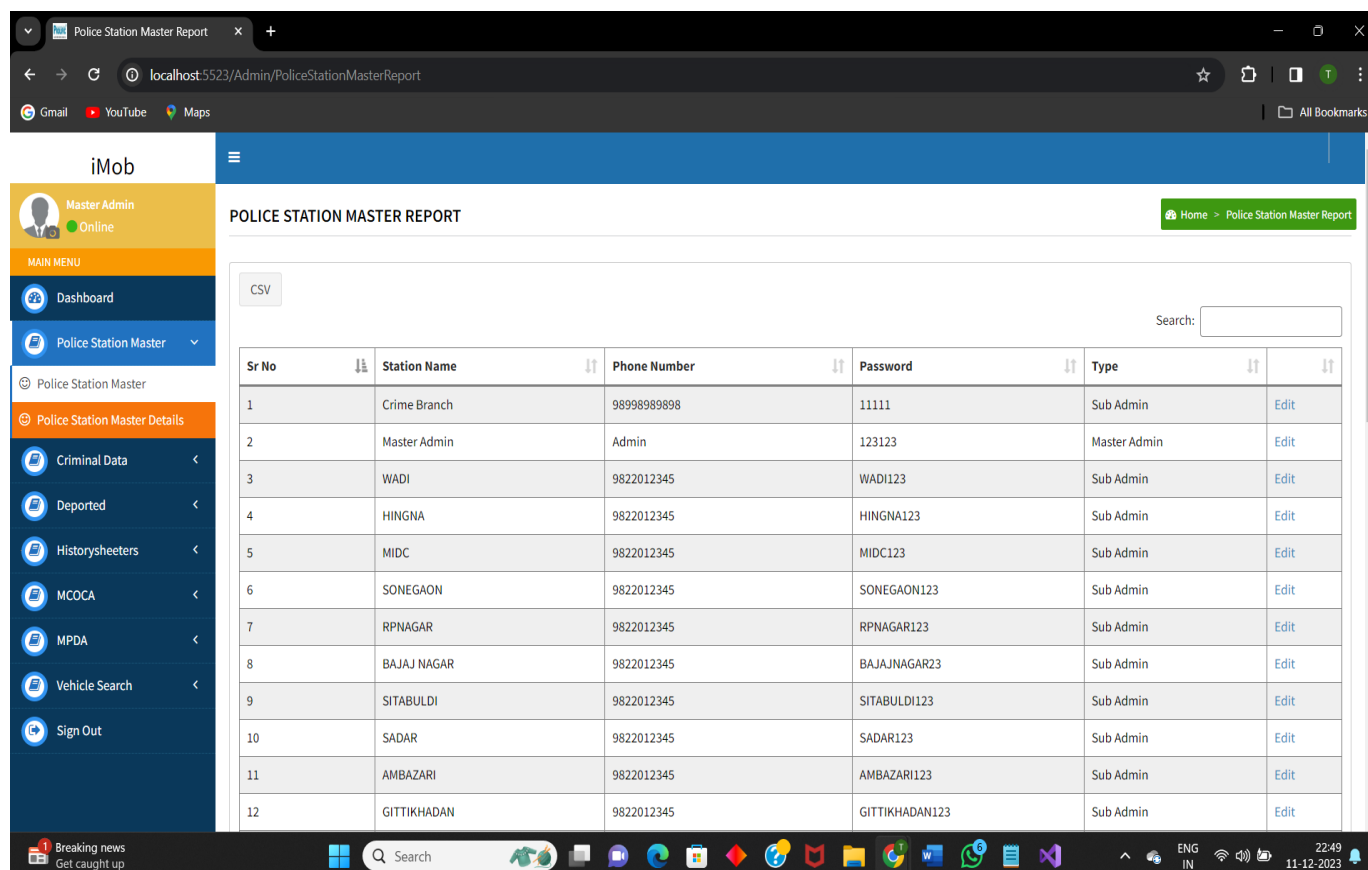


Fig.3.Master Admin Page

V. CONCLUSIONS

In terms of responding promptly to reported crimes, the developed software has shown itself to be successful and efficient. Finding reliable information has become easier thanks to it, and even non-experts may use it with a password because to its intuitive layout. The benefits of collaboration in lowering crime and disturbance are highly valued by the organisation.

The programme is also designed in a way that makes future updates simple to implement. These findings, taken together, indicate that the project's has produced fruitful outcomes. Completing the system's automation can result in increased productivity. Overhauling the current system, the system provides an easier-to-use graphical user interface. Access to the system is authorised staff only and is based on user permissions. System automation successfully eliminates communication delays.

References

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