WEB-BASED SUSPICIOUS ACTIVITY REPORTING HUB

Anand Bagde[1],Abhay Raut[2],Amit Raut[3],shreyash Nandurkar[4],Nehal Fulzule[5],Aditya Chaware[6],shreyash Thawli[7],Kartik Barde[8]

Department of Mechanical Engineering DRGITR, AMRAVATI MAHARASHTRA INDIA [1,2,3,4,5,6,7,8]

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Abstract: The system's operation also simplifies and reduces the cost of crime documentation by utilizing decentralized storage methods. This not only enhances information security but also minimizes server costs. The platform is particularly valuable to crime investigators, especially undercover agents relying on insider information Once the software is ready, it will undergo deployment in a test environment, where the testing team will begin comprehensive testing of the entire system. This is a critical phase aimed at ensuring that the application functions precisely according to the customer's specified requirements. Testing plays a pivotal role in the software development process, serving to validate both the functional and non-functional aspects and requirements of the project.

Keywords: *Suspicious Activity Reporting System Online.*

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I.INTRODUCTION:

This project involves thorough research into various methods for anonymous crime tip submission by witnesses. In today's world, crime rates are escalating alongside advancements in crime-fighting technology. However, a significant number of people worldwide still hesitate to report crimes they witness, fearing complex procedures and interrogations. Our project aims to encourage citizens to fulfill their social responsibility by reporting crimes they witness without fearing reprisals. Additionally, the project seeks to incentivize anonymous tip providers to increase their engagement. The system's operation also simplifies and reduces the cost of crime documentation by utilizing decentralized storage methods. This not only enhances information security but also minimizes server costs. The platform is particularly valuable to crime investigators, especially undercover agents relying on insider information.

1.1 Motivation

Overall, the title effectively conveys the purpose and functionality of the platform, highlighting its emphasis on anonymity, broad scope, and its role in facilitating the reporting of suspicious activities or crimes to the authorities.

Core Functionality: The title indicates that the platform serves as a means for individuals to report suspicious activities or crimes to the authorities. This suggests that the platform provides a specific mechanism or channel for submitting such reports, which may include features such as online forms, chat support, or dedicated hotlines.

Anonymity: The title emphasizes that the reporting process is anonymous, meaning that individuals can submit reports without revealing their identity. This is crucial for encouraging people to come forward with information, as it helps alleviate concerns about potential reprisals or retaliation from those involved in the reported activities.

Reassurance: By highlighting the anonymity of the reporting process, the title aims to reassure potential users that their identity will be protected. This reassurance is essential for building trust in the platform and encouraging more people to use it to report suspicious activities or crimes.

Scope: The use of the term "suspicious activity/crime" in the title indicates that the platform is not limited to reporting only serious crimes. Instead, it is designed to accommodate reports of any behavior that may raise concerns or suspicions.

1.2 Our Mission

The mission of this project is to provide a secure and accessible platform for individuals to report suspicious activities or crimes to the authorities. The project aims to empower citizens to fulfill their social responsibility by enabling them to report such incidents without fear of reprisal. By emphasizing anonymity and providing a user-friendly interface, the project seeks to encourage more people to come forward with information, thereby helping authorities detect and prevent criminal activities. Additionally, the project aims to enhance the efficiency of crime documentation and reduce costs through the use of decentralized storage methods. Ultimately, the mission is to create a platform that not only promotes social responsibility but also facilitates effective collaboration between citizens and law enforcement agencies to ensure safer communities.

II.LITERATURE REVIEW

Recent advancements in machine learning, mobile edge computing (MEC), and the Internet of Things (IoT) have propelled artificial intelligence (AI) to the forefront of emerging technologies. Traditionally, machine learning relied on centralized servers for collecting and processing training data. However, decentralized machine learning approaches and MEC now enable on-device data training within the IoT. This allows AI to be implemented at the edge of the network, with IoT devices offloading training tasks to MEC servers. Despite these benefits, the distributed frameworks of edge intelligence present new challenges, such as user privacy and data security. To address these challenges, blockchain technology is being explored as a promising solution.Blockchain is widely recognized as a distributed smart ledger, known for its high scalability, privacy preservation, and decentralization. It features automated script execution and maintains immutable data records in a trusted manner. However, with the increasing promise of quantum computers in recent years, blockchain also faces potential threats from quantum algorithms.In [1], the authors provide an overview of the current state-of-the-art in cutting-edge technologies by summarizing the available literature in the research fields of

blockchain-based Mobile Edge Computing (MEC), machine learning, secure data sharing, and a basic introduction to post-quantum blockchain. The advancement of web technology has led to a vast amount of data on the internet, with a significant volume being generated continuously. The internet has evolved into a platform for online learning, idea exchange, and opinion sharing. Social networking sites such as Twitter, Facebook, and Google+ are increasingly popular, enabling users to share views, engage in discussions with various communities, and post messages globally. There has been significant research in sentiment analysis of Twitter data, focusing on analyzing opinions in tweets, which are often unstructured, heterogeneous, and either positive, negative, or neutral.

ANALYSIS OF PROBLEM

III.PROBLEM STATEMENT

Solving crimes poses significant challenges for law enforcement, with one of the key hurdles being the need for witnesses and callers to provide reliable information about suspects. Without such crucial details, solving crimes becomes exceedingly difficult. Many individuals hesitate to report crimes, fearing involvement in legal processes. This reluctance is a global phenomenon, with people often preferring to avoid court appearances or putting themselves or their families at risk.To address these challenges, a system is proposed where users can upload details of crimes anonymously through a guest account. The system includes a super admin account for overseeing reports nationwide, state admin accounts for managing reports from specific cities, and khabri (agent) accounts for providing tips to the relevant admin. Additionally, there is a guest page for public messages, eliminating the need for login credentials.

PROPOSED WORK

There may be a number of reasons why people hesitate to come forward and report crimes, some of them include the following:

- There is a lack of trust in the police force. Individuals are concerned that reporting an incident to the police may lead to an investigation of their own circumstances.

- Interactions with police officers are often cumbersome and unpleasant. Reporting individuals may be repeatedly contacted, adding to the hassle.

- Fear of potential consequences is a significant deterrent. Even if law enforcement promises anonymity, individuals worry that their names may still be accessible through records.

To avoid such type of problem we proposed a tip off system which is related to crime activity. In the Tip-off system we have introduced 4 modules:

Guest Module: In this module, users can upload details of a crime without revealing their personal identity.Super Admin Module: This module enables the system to access reports from all over **India.State Admin Module**: This module allows the system to access reports from specific cities within a state.Agent (Khabari) **Module**: Users with this module have login credentials to provide tips to the relevant admin. They can also post public messages on the guest page without the need for login.

OBJECTIVES

The main objectives of our project include:

Ensure Anonymity of users who give tips about a crimeTo Increased Response from citizensReward users who have given a valid tipProvide Better insights to law enforcement for InvestigationEstablishing a platform to access proofs and documentation of crimeReduce Paperwork

IV.SYSTEM ARCHITECTURE

Figure :System Architecture

The Tip off Project is related to crime activity Where normal people witnessed the crime but fear to report in police station as other process might user get involved.. So to solution we have introduced this project as there is guest account where user can directly upload details of crime without showing his or her personal identity. We have super admin account they can get all over India reports,, we have state admin account they get all the reports from specific city in state one account is of khabri(agent)...where they have login details and they can give tip off to the relate admin from their account and one guest page they can directly message publically as they don't need any login.

TESTING

Once the software is ready, it will undergo deployment in a test environment, where the testing team will begin comprehensive testing of the entire system. This is a critical phase aimed at ensuring that the application functions precisely according to the customer's specified requirements. Testing plays a pivotal role in the software development process, serving to validate both the functional and non-functional aspects and requirements of the project. The introduction of new features can potentially impact the functionality of existing features. Testing helps to uncover and rectify such issues before they have a chance to affect the final product. Moreover, conducting tests early in the project lifecycle facilitates the early detection of hidden errors, minimizing the cost of fixing these issues compared to addressing them in later stages.

The testing process is instrumental in eliminating significant

software defects, ultimately leading to a final product that outperforms its competitors. Various types of software tests exist, each with its own set of objectives and strategies, all aimed at ensuring the software's quality and reliability.

User Acceptance Testing: Ensuring that the entire system functions correctly according to its intended purpose.

Integration Testing: Verifying that different software components or features work together seamlessly.

Unit Testing: Checking that each individual software unit performs its designated function correctly. A unit refers to the smallest testable part of an application.

Functional Testing: Testing the functions of the software by simulating real business scenarios based on functional requirements. Black-box testing is commonly used to test functions.

Performance Testing: Evaluating how well the software performs under various workloads. For example, load testing is used to assess performance under typical load conditions.

Regression Testing: Checking whether the introduction of new features has caused any existing functionality to break or degrade. Sanity testing can be employed to quickly verify the surface-level functionality of menus, functions, and commands when a full regression test is not feasible.

Stress Testing: Assessing the system's ability to withstand high levels of stress before failing. This type of testing falls under non-functional testing.

Usability Testing: Evaluating how easily and effectively a customer can use a system or web application to accomplish a task. In all these cases, validating the core requirements is crucial. Exploratory testing is also important as it helps testers uncover unforeseen scenarios that can lead to software errors. Even a seemingly simple application can undergo a variety of tests. A well-thought-out test management plan is essential for prioritizing tests based on their value, considering the available time and resources. Maximizing testing effectiveness involves running the fewest number of tests to uncover the most defects.
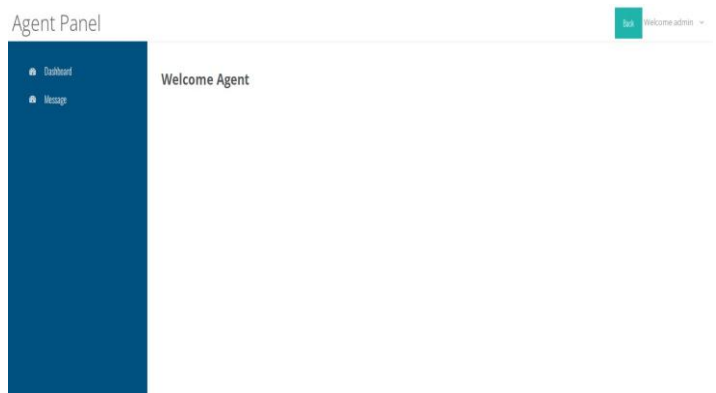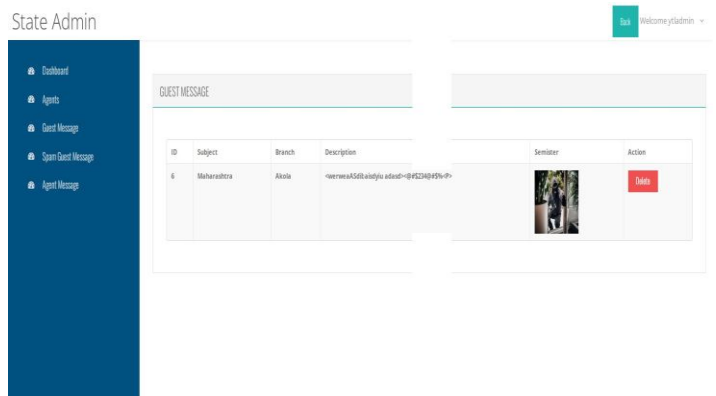
V. RESULTS

Screenshot 1: Home page
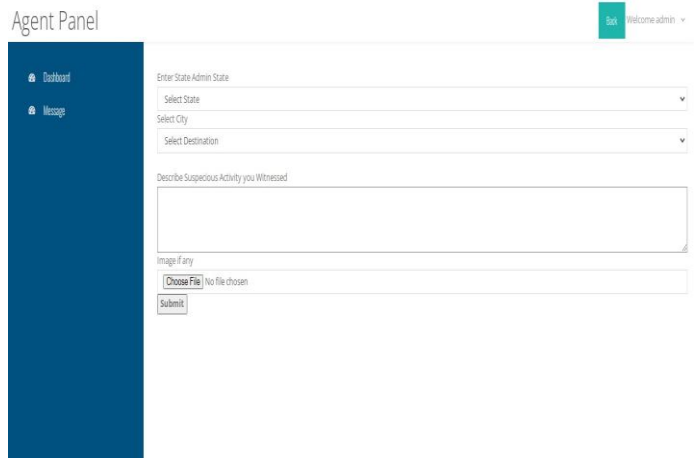
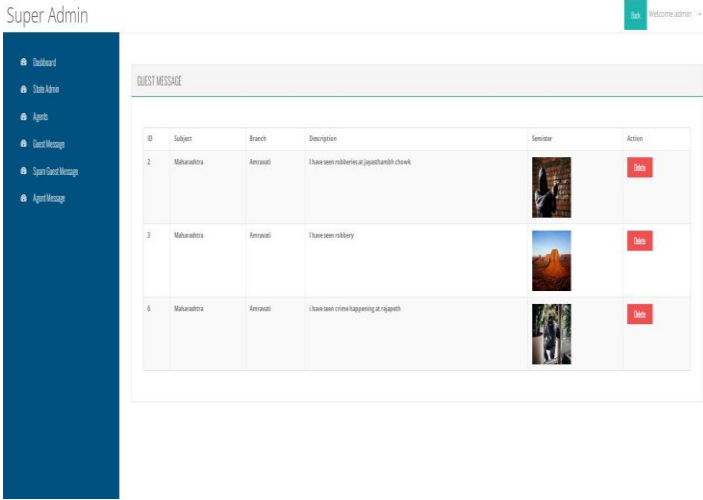*Screenshot .2: Form in Agent Panel*
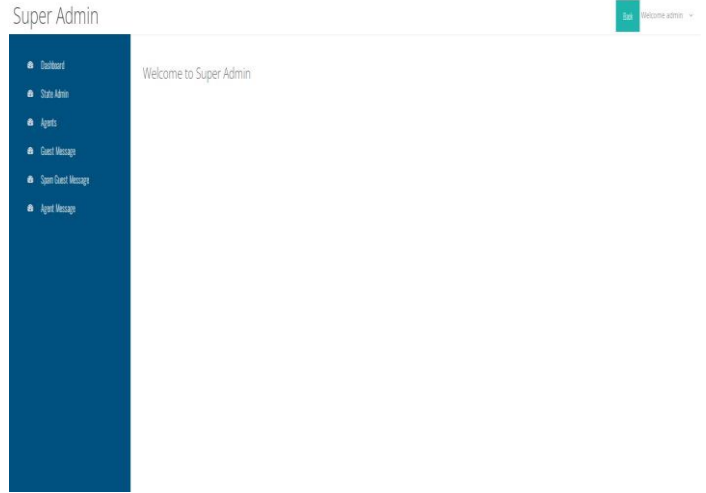

Screenshot.3: Agent Panel Dashboard
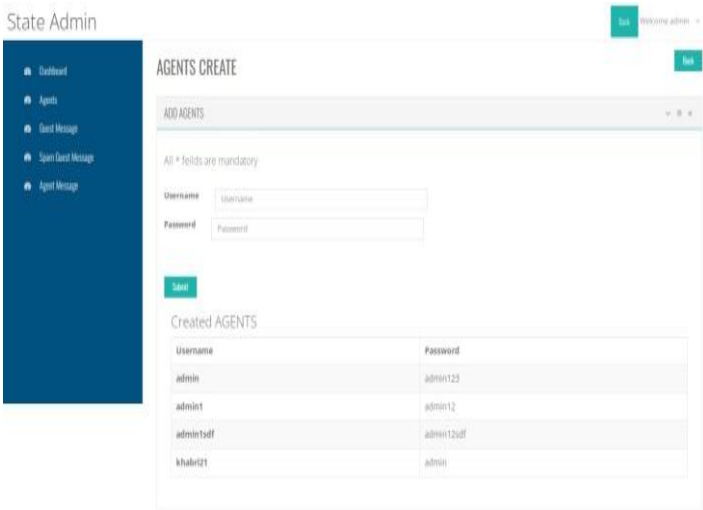

Screenshot.4: Guest message
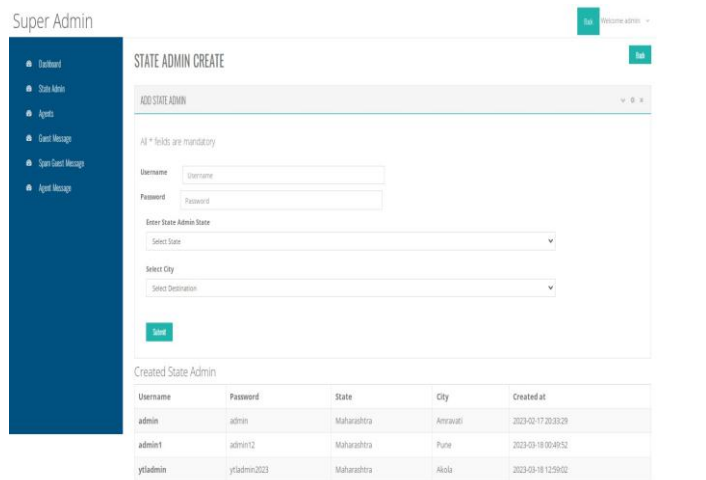

Screenshot.5: State Admin page

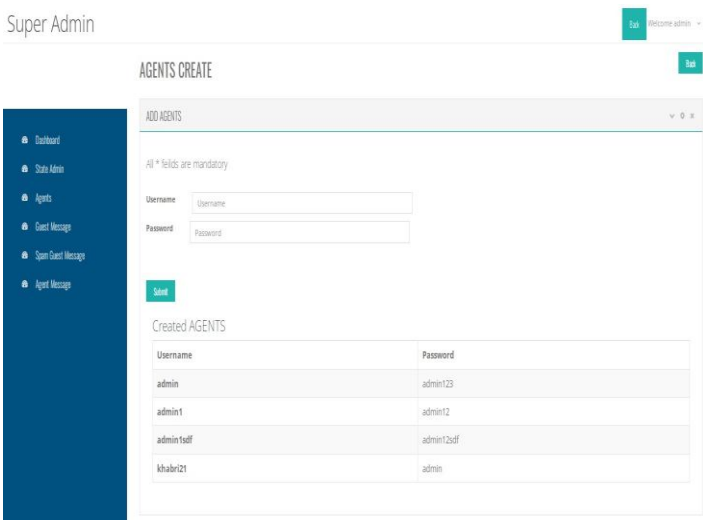*Screenshot.6: Guest Message in Super Admin*
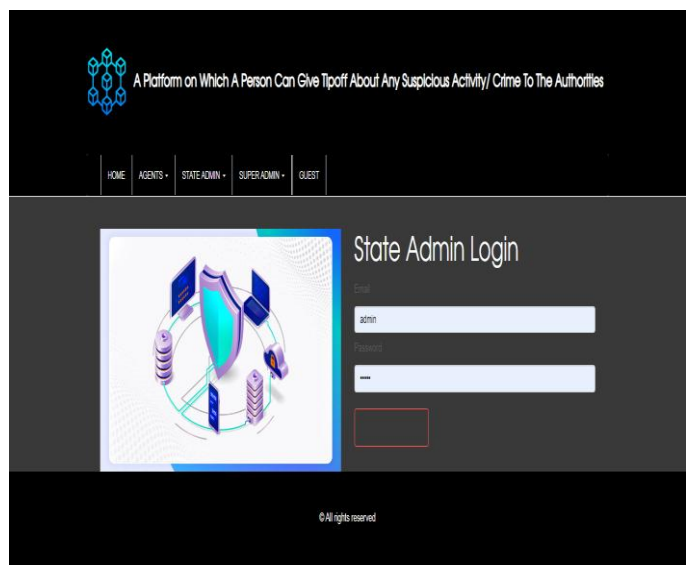

Screenshot.9: dashboard of super admin

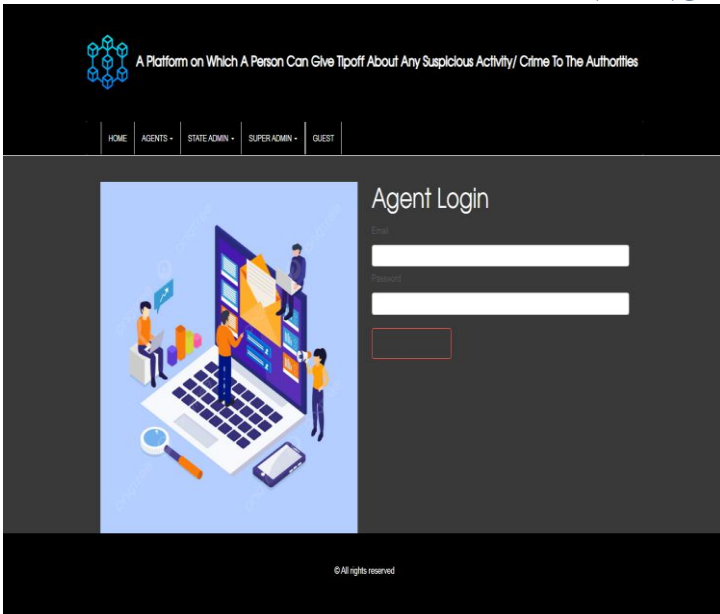*Screenshot.7: Agent Create form in state admin*

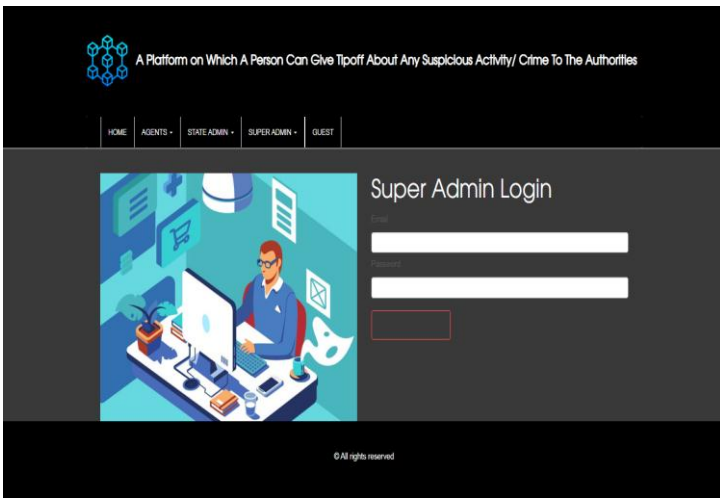*Screenshot.10: state admin addition form in super admin panel*

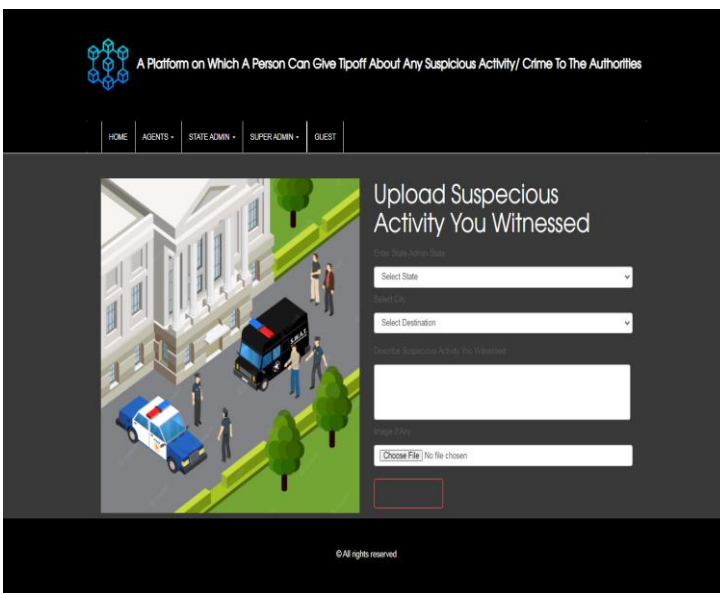*Screenshot.8: Agent Create form in state admin*

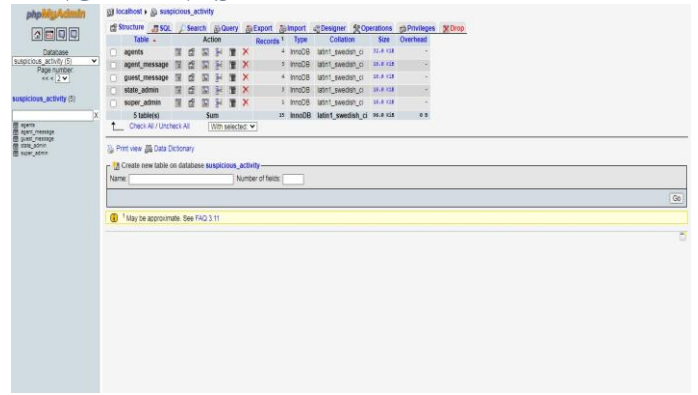

Screenshot.11: Authentication form of state admin

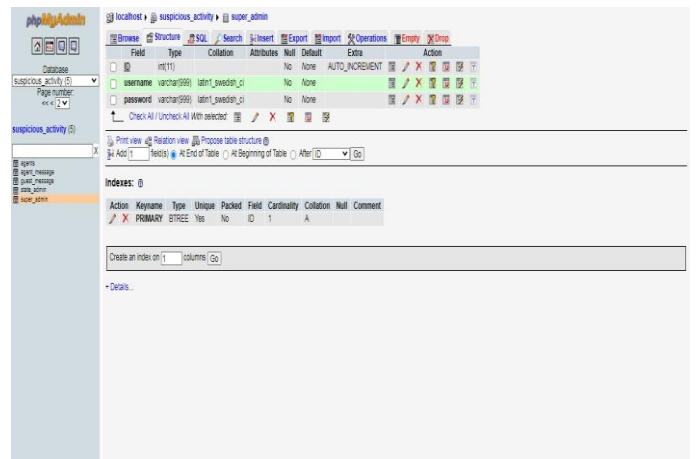*Screenshot.12: Authentication form of Agent*
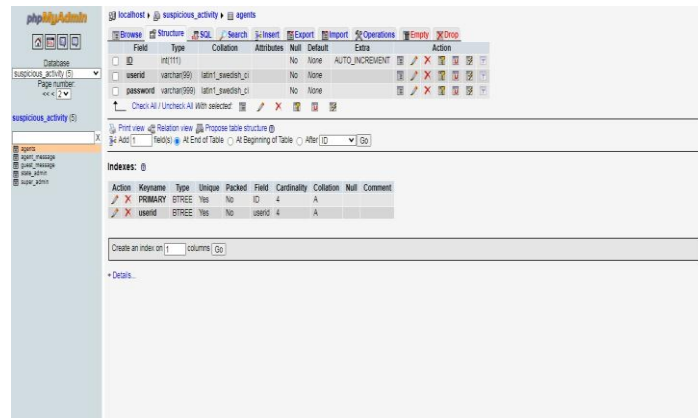

Screenshot.13: Authentication form of super admin

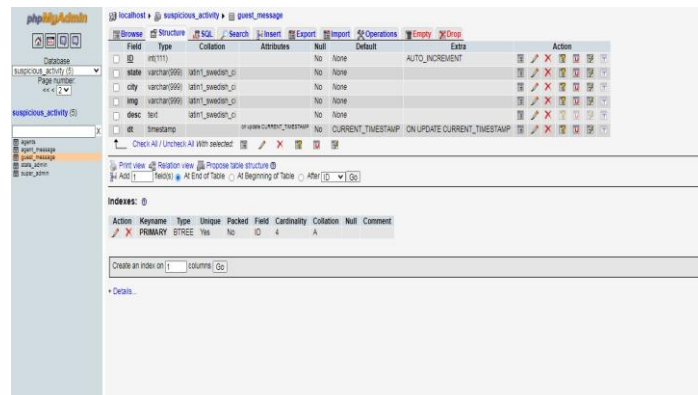*Screenshot.14: suspicious activity upload form*

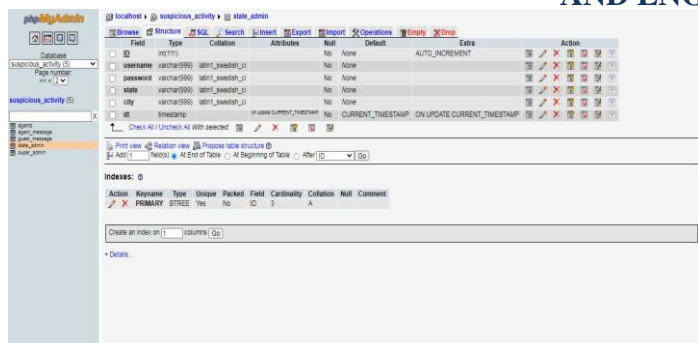*Screenshot.15: Database Tables*

Screenshot.16: table super admin

Screenshot.17: Table Agent

Screenshot.18: Table Guest Message

Screenshot.19: table State Admin

VI.CONCLUSION AND FUTURE SCOPE

Our implementation highlights the importance of providing an anonymous means for reporting crimes, ensuring the protection of witnesses. While victims are typically prioritized in crime reporting, the role of witnesses is often overlooked unless their identities are known. However, not every statement can be considered reliable, and an algorithm that can differentiate genuine tip-offs would greatly aid police investigations, as insider information is highly valuable. We believe in giving every witness a voice and that true justice lies in allowing each individual to share their story without fear of reprisal. By leveraging available technology, it is feasible to create an anonymous crime tip-off system. Through this research, we aim to address all the critical aspects of crime reporting and contribute to society through innovation. Additionally, a roadmap for supporting students in non-traditional career paths can be developed. Talent management based on performance evaluation could be incorporated, along with features such as online exams, resume builders, and virtual classroom functionality.

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