Online Platform for Reporting Suspicious Activities

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Abstract: *Cybercrime Convention defines computer-related forgery as "intentional… and without right, the input, alteration, deletion, or suppression of computer data, resulting in inauthentic data with the intent that it be considered or acted upon for legal purposes as if it were authentic, regardless whether or not the data is directly readable and intelligible." Public procurement (or government crime to the authorities) is the single largest marketplace for government spending and the greatest source of official corruption worldwide. Various factors make this government process a hot bed of corruption in high-income and low-income countries alike. Vendor selection processes are complex and opaque, involving a high degree of human discretion. Not only do these vulnerabilities lead to massive financial waste, but they distort market prices, reduce healthy competition, and frequently result in substandard goods and ineffective services. To Overcome this we develop a platform where through a person can give a tip to crime authorities without showing their own information. Our platform includes 2 main user roles where first panel is government authorities panel where they can receive all the information and other panel is of person who is sending sensitive information to the authorities. Our platform is safe from malware, pishing attack and cross site scripting attacks and sql injection.*

Keywords: Cybercrime

I. INTRODUCTION

This project introduces entails detailed research on all possible solutions for a crime witness to be able to submit crime tips, while staying anonymous. In present times, crimes are increasing at a high rate and so is the technology which is used to tackle them. However, even to this day, throughout the world, most people who witness crimes don't come forward to report them due to fear of getting into unnecessary procedures and interrogations. The aim of our project is to promote the social responsibility of citizens to come forward and talk about crimes they have witnessed, without having to fear repercussions. This application also aims at rewarding these anonymous tip providers to increase their participation. The working system also making crime documentation easy and cost effective by using decentralized means of storage. This not only keeps information safe but also reduces cost on servers. The platform is very essential to Crime investigators, especially for undercover agents who work on the basis of insider information.

II. LITERATURE REVIEW

Driven by recent advancements in machine learning, mobile edge computing (MEC) and the Internet of things (IoT), artificial intelligence (AI) has become an emerging technology. Traditional machine learning approaches require the training data to be collected and processed in centralized servers. With the advent of new decentralized machine learning approaches and mobile edge computing, the IoT on-device data training has now become possible. To realize AI at the edge of the network, IoT devices can offload training tasks to MEC servers. However, those distributed frameworks of edge intelligence also introduce some new challenges, such as user privacy and data security. To handle these problems, blockchain has been considered as a promising solution[1]. As a distributed smart ledger, blockchain is renowned for high scalability, privacy-preserving, and decentralization.

This technology is also featured with automated script execution and immutable data records in a trusted manner. In recent years, as quantum computers become more and more promising, blockchain is also facing potential threats from quantum algorithms[1]. they provide an overview of the current state-ofthe-art in these cutting-edge technologies by summarizing the available literature in the research field of blockchain-based MEC, machine learning, secure data

sharing, and basic introduction of post-quantum blockchain. With the advancement of web technology and its growth, there is a huge volume of data present in the web for internet users and a lot of data is generated too. Internet has become a platform for online learning, exchanging ideas and sharing opinions. Social networking sites like Twitter, Facebook, Google+ are rapidly gaining popularity as they allow people to share and express their views about topics,have discussion with different communities, or post messages across the world. There has been lot of work in the field of sentiment analysis of twitter data. This survey focuses mainly on sentiment analysis of twitter data which is helpful to analyze the information in the tweets where opinions are highly unstructured, heterogeneous and are either positive or negative, or neutral in some cases. provide a survey and a comparative analyses of existing techniques for opinion mining like machine learning and lexicon-based approaches, together with evaluation metrics. Using various machine learning algorithms like Naive Bayes, Max Entropy, and Support Vector Machine, we provide a research on twitter data streams. General challenges and applications of Sentiment Analysis on Twitter are also discussed.

In this informative age, many documents in different Indian Languages are available in digital forms. For easy retrieval of these digitized documents, these documents must be classified into a class according to its content. Text Classification is an area of Text Mining which helps to overcome this challenge. Text Classification is act of assigning classes to documents[3]. provides the analysis of Text Classification works done on Indian Language content. Text being present in Indian language imposes the challenges of Natural Language processing. The study shows that supervised learning algorithms (Naive Bayes (NB), Support Vector Machine (SVM), Artificial Neural Network (ANN), and N-gram) performed better for Text Classification task.

Police researchers have long argued that favorable evaluations of the police eventually lead to citizens" willingness to cooperate with the police. However, this assumption has barely been studied empirically[6]. examines the association between attitudes toward the police and crime reporting behavior of victims. Furthermore, the study explores the influence of victims" characteristics on their decisions to report crime to the police. Using field data originally collected in Ghana, the study found that victims" levels of confidence in the police and satisfaction with police work positively predict their decisions to report sexual assault and robbery to the police. Moreover, findings revealed that age, marital status, and employment status are important predictors of victims" reporting behavior. Several practical and theoretical implications of the results are discussed.

Non-fungible tokens (NFTs) are a new type of unique and indivisible blockchain-based tokens introduced in late 2017. While fungible tokens have enabled new use cases such as Initial Coin Offerings, the potential of NFTs as a valuable component remains unclear[8]. addresses this gap in theoretical and practical knowledge and demonstrates the efficacy of NFTs in the domain of event ticketing. they follow a rigorous design science research approach of designing, building and thoroughly evaluating a prototype of an event ticketing system based on NFTs. Thereby, authors demonstrate the usefulness of NFTs to tokenize digital goods, prevent fraud and improve control over secondary market transactions. Further, they contribute generalizable knowledge of the benefits and challenges of NFTs and derive implications for both researchers and practitioners[8]. Finally proposes managerial recommendations for building applications utilizing NFTs and enables other researchers to draw on its findings and design principles.

III. PROBLEM STATEMENT

It is an extremely difficult task to solve crimes and the law enforcement community often faces many challenges. There are several factors that can limit the efficiency and performance of the police, out of which, the most important factor is the ability of witnesses and callers to provide reliable information about the suspect's identity and actions. Without this basic information from people who know about the crime incident, solving a crime becomes extremely difficult. There may be a number of reasons why people hesitate to come forward and report crimes. Throughout the world, most people that don't come forward to report crimes due to fear of getting pulled into unnecessary procedures. Others don't report more serious crimes, if they are just witnesses at the scene. They would prefer to avoid going to court and having to testify or putting themselves or their families at risk. So the solution to this problem is to introduce the system as there is guest account where user can directly upload details of crime without showing his or her personal identity. The system havesuper admin account they can get all over India reports, also the system 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 there account, and one guest page they can directly message publically, as they don't need any login.

IV. PROPOSED WORK

4.1 Proposed Work

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

- People do not trust the police. Before reporting any incident to the police, people think their own circumstances will be investigated too.
- Dealing with police officers is tedious and not easy to go through. They repeatedly contact the person who reports hazzle.
- Being in fear of the consequences. Even when the law enforcement officers state that they will keep names anonymous, one's name is still on the records and can easily be seen or gained access to.
- 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 Guest Module user can directly upload details of crime without showing his or her personal identity.
- Super Admin Module: With this module system can get all over India reports
- State Admin Module: with this module system can get all the reports from specific city in state
- Agent(Khabari) Module: with this module they have login details and they can give tip off to the relate admin from their account and on guest page they can directly message publically as they don't need any login

4.2 Objectives

The main objectives of our project include:

- Ensure Anonymity of users who give tips about a crime
- To Increased Response from citizens
- Reward users who have given a valid tip
- Provide Better insights to law enforcement for Investigation
- Establishing a platform to access proofs and documentation of crime ☐ Reduce Paperwork

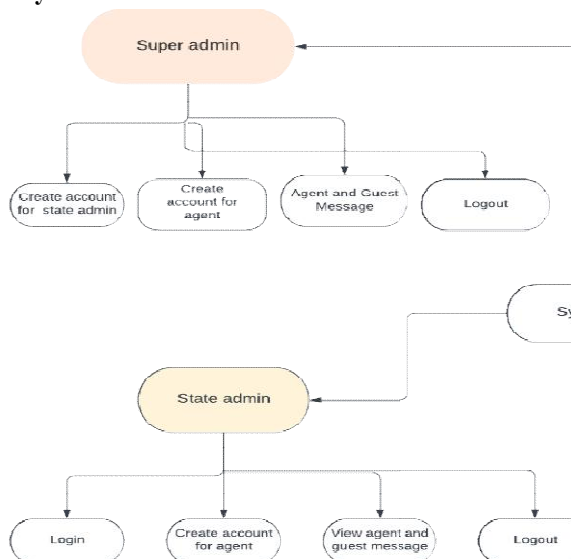## V. SYSTEM ARCHITECTURE

5.1 System Architecture

Figure 5.1: System architecture

The Tip off Project is related to criminal activity Where normal people witnessed the crime but fear to report in the police station as other processes 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.

VI. SYSTEM REQUIREMENT

6.1 Hardware Requirement
System: Core i3 1.80 GHz Processor
A processor is the logic circuitry that responds to and processes the basic instructions that drive a computer.
Hard Disk: 500 GB.
The main function of hard disk is to store data for long term and data can be computer's operating systems, applications, documents, personal files and so on.
Ram: 4 GB.
Computer random access memory (RAM) is one of the most important components in determining your system's performance. RAM gives applications a place to store and access data on a short-term basis. It stores the information your computer is actively using so that it can be accessed quickly.

6.2 Software Requirement
Operating System : Windows 7
An operating system (OS) is system software that manages computer hardware, software resources, and provides common services for computer programs.
Technology Used: PHP
PHP is a general-purpose scripting language especially suited to web development.
Database Used :Mysql
MySQL Database Service is a fully managed database service to deploy cloud-native applications.
Library: jQuery
Query is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax.

VII. IMPLEMENTATION

7.1 System Configuration
Install XAMPP.
Steps :
- **Download :**XAMPP is a release made available by the non-profit project Apache Friends. Versions with PHP 5.5, 5.6, or 7 are available for download on the Apache Friends website.
- **Run .exe file :**Once the software bundle has been downloaded, you can start the installation by double clicking on the file with the ending .exe.
- **Deactivate any Antivirus Software :**Since an active antivirus program can negatively affect the installation process, it's recommended to temporarily pause any antivirus software until all XAMPP components have successfully been installed.
- **Deactivate UAC :**User Account Control (UAC) can interfere with the XAMPP installation because it limits writing access to the C: drive, so we recommend you deactivate this too for the duration of the installation process. To find out how to turn off your UAC, head to the Microsoft Windows support pages.

- **Start The Setup Wizard :**After you've opened the .exe file (after deactivating your antivirus program(s) and taken note of the User Account Control, the start screen of the XAMPP setup wizard should appear automatically. Click on, Next to configure the installation settings.
- **Choose Software Components :**Under Select Components, you have the option to exclude individual components of the XAMPP software bundle from the installation. But for a full local test server, we recommend you install using the standard setup and all available components. After making your choice, click Next.
- **Choose The Installation Directory:** In this next step, you have the chance to choose where you'd like the XAMPP software packet to be installed. If you opt for the standard setup, then a folder with the name XAMPP will be created under C:\ for you. After you've chosen a location, click Next.
- **Start The Installation Process:** Once all the aforementioned preferences have been decided, click to start the installation. The setup wizard will unpack and install the selected components and save them to the designated directory. This process can take several minutes in total. You can follow the progress of this installation by keeping an eye on the green loading bar in the middle of the screen.
- **Windows Firewall Blocking:** Your Firewall may interrupt the installation process to block the some components of the XAMPP. Use the corresponding check box to enable communication between the Apache server and your private network or work network. Remember that making your XAMPP server available for public networks isn't recommended.
- **Complete Installation:** Once all the components are unpacked and installed, you can close the setup wizard by clicking on Finish. Click to tick the corresponding check box and open the XAMPP Control Panel once the installation process is finished.

Import dump sql file into php my admin

- Log into phpMyAdmin.
- Select the destination database on the left pane.
- Click on the Import tab in the top center pane.
- Under the File to import section, click Browse and locate the file with the. V.Check or uncheck the boxes for 'Partial import' and 'Other options'.
- From the Format dropdown menu choose 'SQL'.
- Click the **Go** button at the bottom to import the database.

Create your project folder in XAMPP.>>Htdocs>> and copy all the files in it.

Find an open space in the right pane and right click or on newer versions of Windows, Click the drop down arrow beside Organize top left, and choose New Folder. Either method, Type htdocs to replace the blue New Folder text. Then click beside it. Then double click the htdocs folder to open it.

Start apache server and execute the project on local host.

- In order to get the dashboard for localhost: search http://localhost in any browser.
- Now to run your code, open localhost/file.php then it gets executed.

VIII. TESTING

Once the software is ready, it will be deployed in a test environment. The test team begins testing the functionality of the entire system. This is done to ensure that the entire application is functioning according to the customer's requirements. The role of testing in software development cannot be underestimated. This method helps the software team validate the functional and non-functional characteristics and requirements of the project. New features may affect the functionality of previously provided features. Testing helps find these issues before they affect the final product. In addition, applying tests early in the project makes it much easier to detect hidden errors. Therefore, the cost of fixing these errors is minimized compared to later stages. The test procedure eliminates significant software defects, making

the final product superior to its competitors. There are many different types of software tests, each with specific objectives and strategies:

- **Acceptance testing:** Verifying whether the whole system works as intended.
- **Integration testing:** Ensuring that software components or functions operate together.
- **Unit testing:** Validating that each software unit performs as expected. A unit is the smallest testable component of an application.
- **Functional testing:** Checking functions by emulating business scenarios, based on functional requirements. Black-box testing is a common way to verify functions.
- **Performance testing:** Testing how the software performs under different workloads. Load testing, for example, is used to evaluate performance under real-life load conditions.
- **Regression testing:** Checking whether new features break or degrade functionality. Sanity testing can be used to verify menus, functions and commands at the surface level, when there is no time for a full regression test.
- **Stress testing:** Testing how much strain the system can take before it fails. Considered to be a type of non-functional testing.
- **Usability testing:** Validating how well a customer can use a system or web application to complete a task. In each case, validating base requirements is a critical assessment. Just as important, exploratory testing helps a tester or testing team uncover hard-to-predict scenarios and situations that can lead to software errors. Even a simple application can be subject to a large number and variety of tests. A test management plan helps to prioritize which types of testing provide the most value – given available time and resources. Testing effectiveness is optimized by running the fewest number of tests to find the largest number of defects.

IX. CONCLUSION

The main take away from our implementation is that it is very important to provide a means of crime tipping that maintains anonymity of a witness. While crimes are meant to be reported by victims, we often do not prioritize the witnesses in the case unless we know who is coming forward. Considering not every person's statement can be deemed as truthful or legitimate, if we figure out an algorithm distinguish genuine tip-offs, it would help police investigation greatly, as insider information holds a lot of value. We believe everyone deserves to be heard and true justice lies in giving each witness a chance to convey their story without having to fear any external threats. Combining all the available technology, it is very much possible to build an anonymous crime tip off system that enables users to do so. With this research we are hoping to cover all the aspects that require consideration in crime tipping and be able to serve the society with our innovation.

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