

Ministry/Organization Name: **Bureau of Police Research & Development**

Problem Statement: **Digital Solution to Combat Bribery & Justice Restoration System**

Team Name: **Code Nebula**

Team Leader Name: **Utkarsh Tiwari**

College Code: **U-005**

Problem Code: **RK58**

SOLUTION:

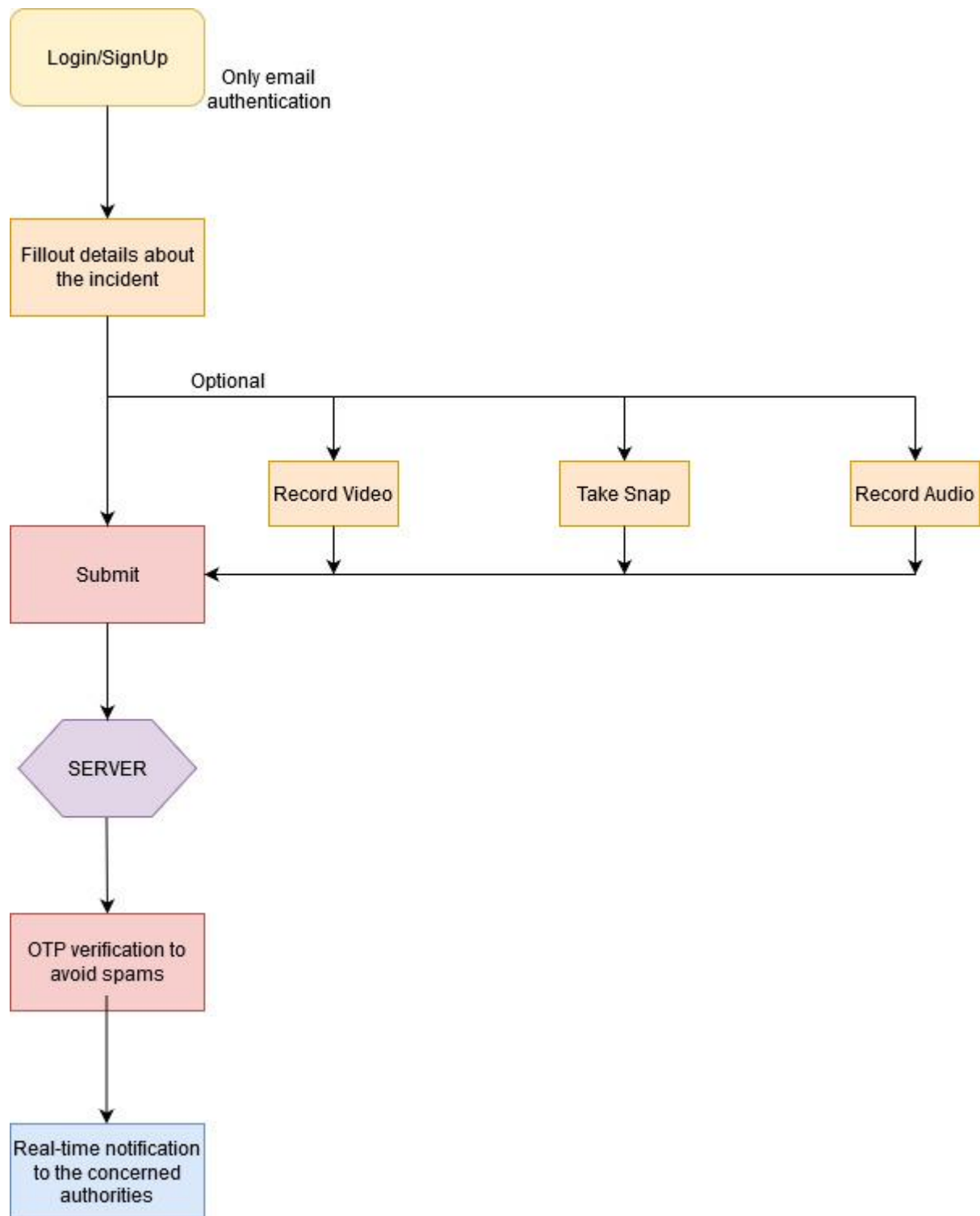
An android based application to report concurrent bribery cases in an area. The android app will be utilised on the user end to report such a case. User will select out the category/subcategory of the organization and its location and fill in the details of the relevant official(s)/person(s). They can provide more detailed description in text along with any other form of media. The app can also be used to privately record audio/video footage or even capture snaps of the scene.

Along with it, there will be a website to keep track of different such cases, having an open public portal which will show all the occurring cases in the real time, along with the concerned department and location. Different authorities will have their private login portals on the website. Any case concerned with that particular authority will be notified on their private portal along with all the details as entered and reported by the user. The details of the user will be anonymous to that authority only.

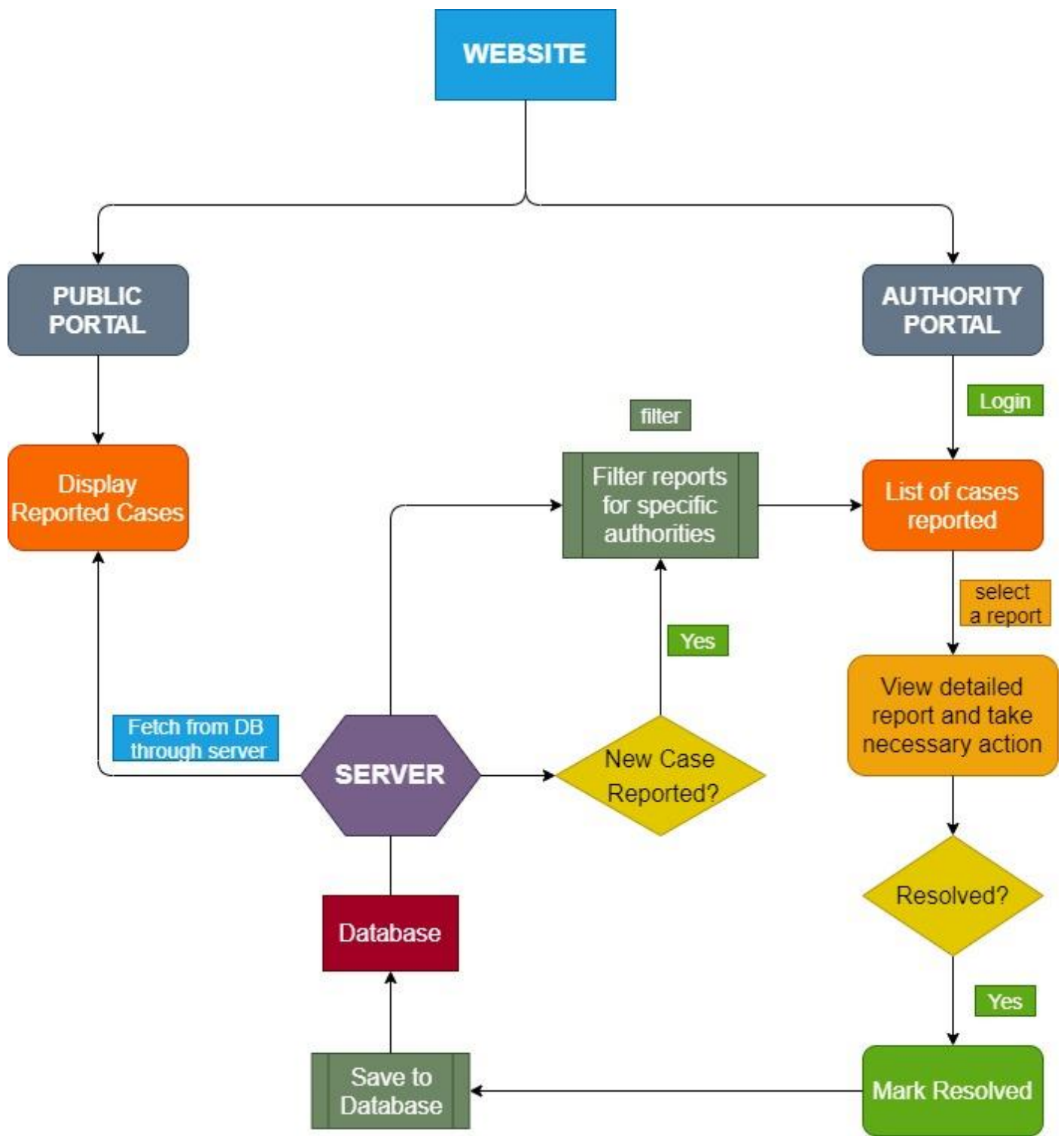
Features:

- 1) A feasible interface for users to choose and categorize the organization and easily fill up the necessary details.
- 2) A secured database to provide anonymity to users, while ensuring the authenticity of the reported case by sending the necessary details of the user to the relevant authority.
- 3) A public portal tracking the status of the ongoing cases and its settlement.
- 4) A real time notification to user to avoid getting involved if such a case is found in a particular radius of his current location.
- 5) A real time notification to authority in their portal, if a case occurs in their department.
- 6) A private video/audio recorder that gets triggered on clicking the power button thrice and gets the media attached to the report.
- 7) Using ML model, create analysis report using past trends, area wise and department wise, for reporting and prediction of future cases that may occur.

Activity Diagram:

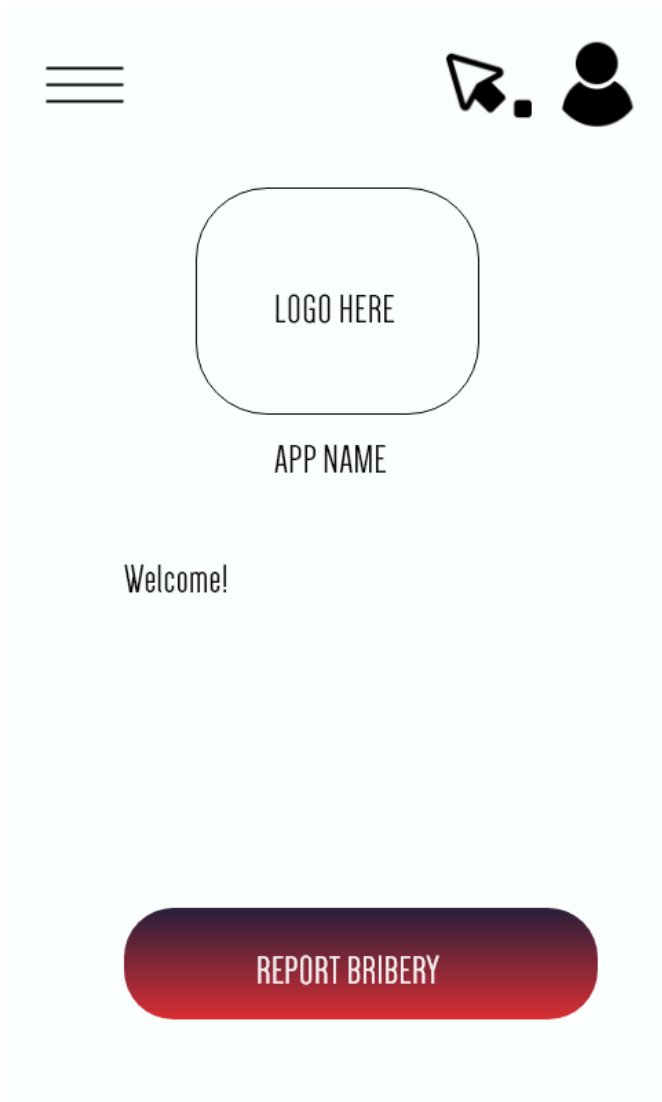


For Android App



For Website

App Layout/Interface:



● ○ ○
step 1

INFORMATION OF THE CASE

NAME OF THE ORGANISATION

ORGANISATION CATEGORY Select ▼


LOCATION


STATE Select ▼

CITY

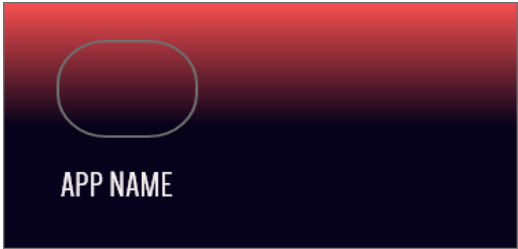
PIN

GIVE A BRIEF DESCRIPTION
REGARDING THE CASE

ATTACH VALID PROOF 

ATTACH PHOTO
IF ANY 

SUBMIT



- About App
- Submit Your Case
- Contact Us
- Help

USER NAME

PASSWORD

LOGIN

No account yet ? [Creat one](#)

USER NAME

EMAIL

PASSWORD

CONFORM PASSWORD

SIGN IN

Technology Stack:



An android based application, so that millions of people can access it . It is a mobile operating system , designed primarily for touchscreen devices such as smartphones,



Google Firebase is a Google-backed application development software that enables developers to develop Android apps. The Firebase community runs on an open source, thus providing all necessary tools .



Node.js is an open-source, cross-platform, JavaScript runtime environment that executes JavaScript code outside of a browser.



TensorFlow is a free and open-source software library for dataflow and differentiable programming across a range of tasks. It is a symbolic math library, and is also used for machine learning applications such as neural networks.



Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript.



Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in a markup language like HTML. CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript. .



JavaScript, often abbreviated as JS, is a high-level, just-in-time compiled, multi-paradigm programming language that conforms to the ECMAScript specification. JavaScript has curly-bracket syntax, dynamic typing, prototype-based object-orientation, and first-class functions.

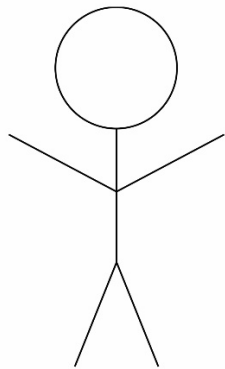


The **Jupyter Notebook** is an open-source web application that allows you to create and share documents that contain live code, equations, visualizations and narrative text. Uses include: data cleaning and transformation, numerical simulation, statistical modeling, data visualization, machine learning, and much more.

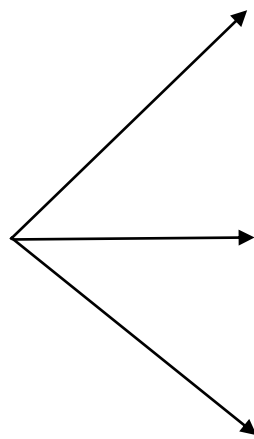


MySQL is an open-source relational database management system. It is written in C and C++. Its SQL parser is written in yacc, but it uses a home-brewed lexical analyzer. It is used in many database driven web applications.

USE CASES:



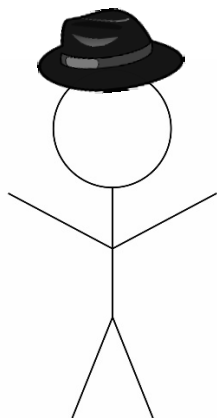
User (Applicant)



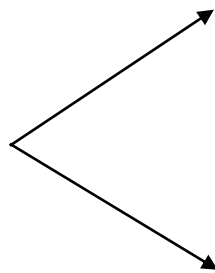
Reporting bribery
ensuring user
anonymity

Reported cases in
the vicinity notified

Interface to provide
optional evidence
(photo, video, audio)

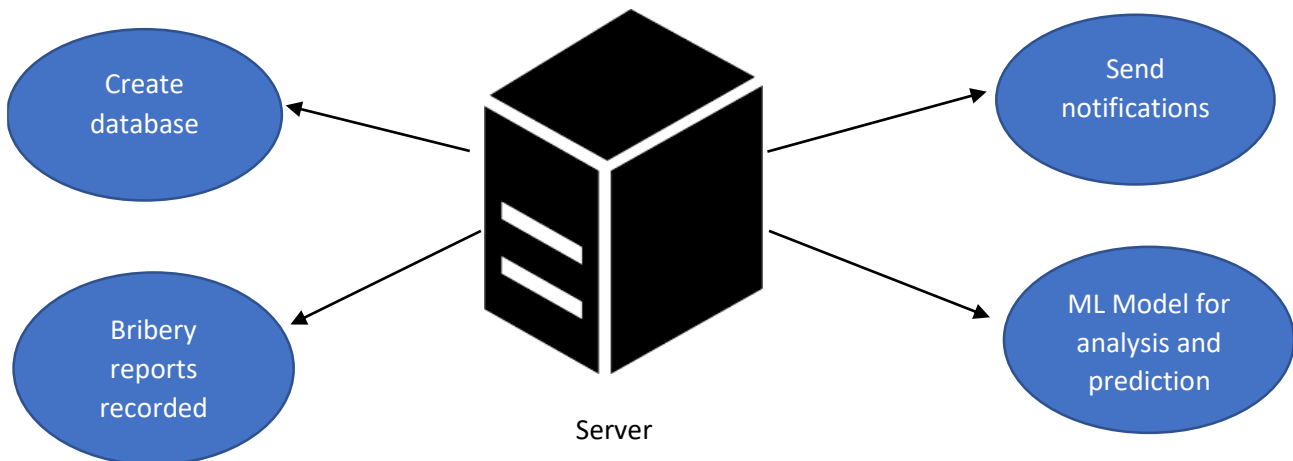


Authority



Reports in respective
department notified

Insight/interpretation
of reported cases



Server

Dependencies/Show-Stoppers:

- Real-time verification of received information.
- Real-time criminal action by police department.