website development of crime management system

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Shivani Mishra
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ABSTRACT

In today's generation, the number of people using online systems is increasing rapidly and hence; online facilities can be used efficiently for personal security or various other protection purposes. The crimes happening around awakened us to go for the safety issues, so new websites have been developed to provide security systems online that can be operated easily. This project presents City Without Crime (CWC), a web-based application for managing crime in the city. This software provides a facility for reporting crimes online, registering complaints, entering missing persons, showing most wanted person details, news reporting, and chatting. Police and police will receive the complaint can send a message regarding the status of the complaint to the user who filed the complaint. Police can use this software to manage different crimes, and some of them are done in police stations manually. Police gets their login password from the admin directly. So this website helps police find out the problems in the society without them coming to the police station. Any number of clients can connect to the server. Each user first makes their login to the server to show their availability. A XAMPP Server must be maintained for the temporary storage of the database to enable the processing facilities. This paper describes how simple HTML and PHP coding has been used to design the website. We then took a look at the challenges ahead and opportunities in this fundamental technology that is all set to revolutionise our digital world.

Keywords: CWC, XAMPP, HTML and PHP

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Chapter 1

Introduction

1.1 Overview

The need for good record-keeping and information-sharing practices has taken on great significance in today's global environment. Not only do well-organized records provide important internal information (i.e., business operations and case management support—not to forget the official memory of an agency's investigations), law enforcement agencies are now required to communicate agency-to-agency and across continents to protect the Nation's citizens. Nothing is more necessary to accomplishing that mission than having accessibility to accurate and timely records. Calls for service records and investigative, arrest, criminal identification, detention, and even civil records hold data that by themselves mean little; however, once pieced together with information from other jurisdictions, the result can help with all levels of investigations and aid in safeguarding the Nation.

1.2 Existing System

Almost all operations are done manually in the existing crime management system, such as sing complaints, taking actions against crimes, viewing status, etc. So with the existing system, if someone needs to register a complaint, he must do it through the police. If it is done manually, numerous minor errors will occur. Error detection in the previous entries and data cross verification is another essential operation. These are done manually, and it would take time. Drawbacks of the existing system can be concluded as follows:

1. The existing system is time-consuming and not very user friendly.

2. Even a sincere and experienced officer cannot lead more than one case at a time.
3. In many case, due to bribery, the innocents are accused in the existing system since the records are manually kept, which is easy to manipulate.
4. Moreover, the records are not centralised. Hence changes made might not reflect everywhere.

1.3 Proposed System

Now the proposed system is developed to solve all the problems that occurred in the earlier systems by automating most of the operations. Keeping in mind that the type of users can range from someone who knows how to work with computers to someone who knows nothing about them, this application can be used by all by providing a user-friendly interface. In today's world, where all people lack is time, this application lessens time consumption. It also provides better communication and faster updation of data.

Chapter 2

Feasibility Study

A feasibility study is a kind of analysis before the work on the project starts. It considers all the economic, technical, scheduling considerations—to ensure that the project completes successfully.

2.1 Economic feasibility

This analysis studies the project's cost and its worth price. It compares the cost with the project's output and shows a point in spending the number of resources.

In the existing system, there are many people to do the fieldwork. In the proposemethodem, since the manual work decreases drastically, the number of people involved also decreases, reducing the cost. Hence, the project is economically feasible, but it is also profitable.

2.2 Technical feasibility

This aspect checks whether we have enough technical support to be able enough to finish the project. Conclusion: To conclude, we have to change the current system for the proposed plan to put into the effort. Implementing a database is a one-time effort, and other required technical aspects are readily available. So the project was technically feasible as well.

Overall, the project is feasible to staff w, with and is profitable once implemented.

Chapter 3

Software Requirements Specification

3.1 Languages Used

We use PHP for the back-end development and HTML5 for front-end development. Hypertext Markup Language (HTML) is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by Cascading Style Sheets (CSS) and scripting language. PHP (recursive acronym for *PHP: Hypertext Preprocessor*) stands for Personal Home Page and is a widely-used open source general-purpose scripting language that is especially suited for web development and can be embedded into HTML.

We chose PHP because instead of lots of commands to output HTML (as seen in C or Perl), PHP pages contain HTML with embedded code What distinguishes PHP from something like client-side JavaScript is that the code is executed on the server, generating HTML, which is then sent to the client. The client would receive running that script but not know the underlying code. You can even configure your webserver to process all your HTML files with PHP, and then there's no way that users can tell what you have up your sleeve.
The best thing about using PHP is that it is straightforward.

3.1.1 Features of PHP

1. **Simple**: It is simple to use compared to other scripting languages; this is widely used worldwide.

2. **Interpreted**: It is an interpreted language, i.e. there is no need for compilation.

3. Faster: It is faster than another scripting language, e.g. asp and JSP.

4. Open Source: Open source means you no need to pay to use PHP; you can free download and use it.

5. Platform Independent: PHP code will be run on every platform, Linux, Unix, Mac OS X, Windows.

6. Case Sensitive: PHP is case sensitive scripting language at the time of variable declaration, while keywords are NOT case sensitive

7. **Loosely Typed Language**: PHP supports variable usage without declaring its data type. It will be taken at the execution based on the kind of data it has on its value.

3.1.2 Features of HTML5

1. **File Format:** HTML is essentially a file format. Microsoft Word uses .DOC files, music player uses .MP3 files, and browsers use .HTML files

2. **Platform Independence:** One can display HTML documents on any platform such as Windows and Linux

3. It provides a more flexible way to design web pages and text.

3. **Doctype:** HTML5 has a doctype function where there is no struggle of memorising complex codes. The declaration is straightforward in this version, and it allows browsers to render the ages in the standard model.

4. **Media Support:** HTML5 brings you outstanding audio and video support. You can easily add audio and video files to make your website look lively and engaging.

3.2 Database Platform

A database is an organised collection of data. The data is typically collected to model aspects of reality in a way that supports processes requiring information, such as modelling the availability of rooms in hotels in a way that keeps finding a hotel with vacancies.

Database management systems (DBMS) are computer software applications that interact with the user, other applications, and the database to capture and analyse data. A general-purpose DBMS is designed to allow the definition, creation, querying, update, and administration of databases. Well-known DBMSs include MySQL, PostgreSQL, Microsoft SQL
Server, Oracle, Sybase and IBM DB2.

XAMPP is a free and open-source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, MySQL database server, and interpreters for scripts written in the PHP and Perl programming languages. Since most actual web server deployments use the same components as XAMPP, it makes transitioning from a local test server to a live server possible.

MySQL is a freely available open-source Relational Database Management System (RDBMS) that uses Structured Query Language (SQL). SQL is the most popular language for adding, accessing and managing a database. It is most noted for its quick processing, proven reliability, ease and flexibility of use.

3.3 Software Requirements

1.Microsoft Windows XP/ Windows 7/ Windows Vista/ Windows 8/ Windows 10/ Windows Server 2003, 2008, 2012.

2.XAMPP must be installed.

3. Sublime Text is used as a source code editor

Chapter 4

Requirement Analysis

Requirements Analysis is the process of defining the users' expectations for an application to be built or modified. Requirements analysis involves all the tasks that are conducted to identify the needs of different stakeholders. Therefore, requirements analysis means analysing, documenting, validating, and managing software or system requirements. As the software system requirements were predictable, wallowing the classical system development life cycle method is decided. This process demands a systematic, sequential approach to software development that begins at the system level and progress through analysis, design, coding, testing and maintenance. The steps that applies to all software engineering paradigms. The program is followed by SDLC (Software Development Life Cycle).

Broadly there can be two kinds of requirements: Functional and Non-functional.

4.1 Functional Requirements

a.Complaint Managements(add a complaint,edit a complaint, reply to a complaint etc)
b.News(add news,edit news,delete news)
c.Missing persons(add a missing person,edit, delete, show a missing person list)
d.User Management(login,password,add a user)
e.Feedback

4.2 Non-functional Requirements

a.Performance.

b.Capacity.

c.Availability.

d.Security

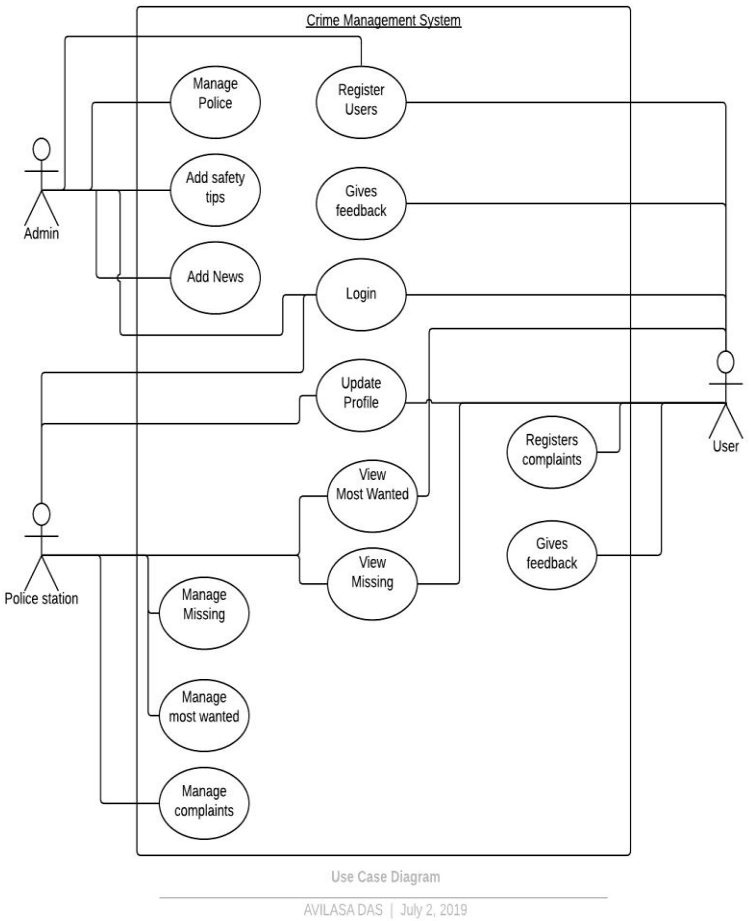
Chapter 5

System Design

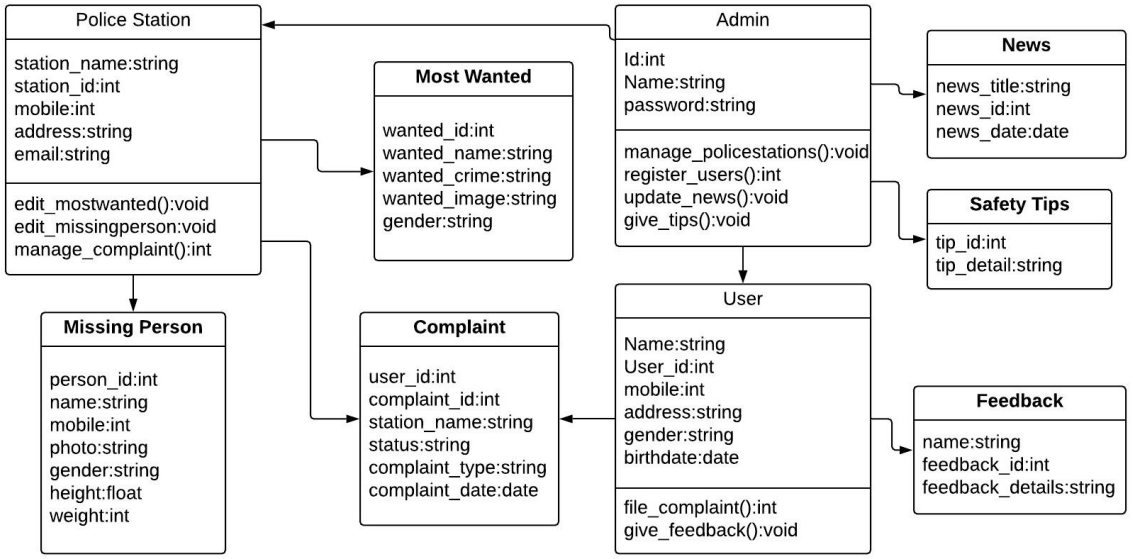
There are various ways of understanding the required elements: DFDs, Gantt charts, Flowcharts, UML diagrams, etc. For this project, we have used a Use Case diagram and then later a class diag better understanding of the requirements and functionalities of our proj

A use case diagram represents a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of charts. Either circles or ellipses represent the use cases.

5.1 Use case Diagram



5.2 Class Diagram

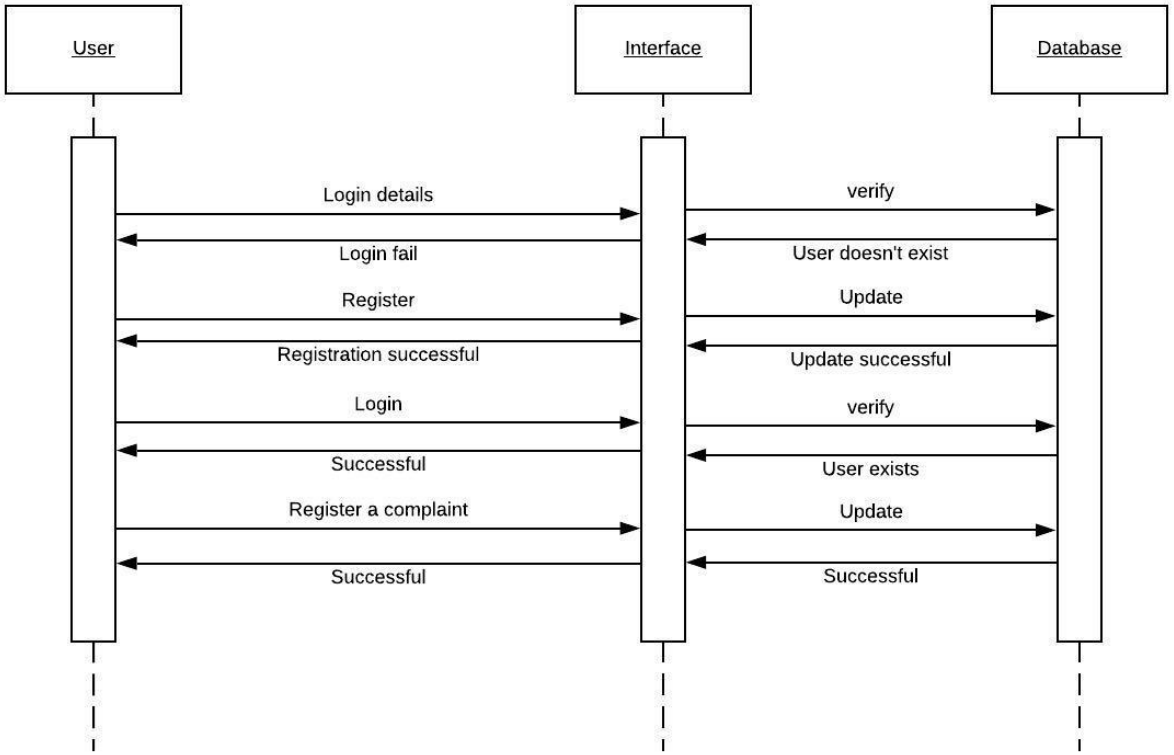


Class Diagram

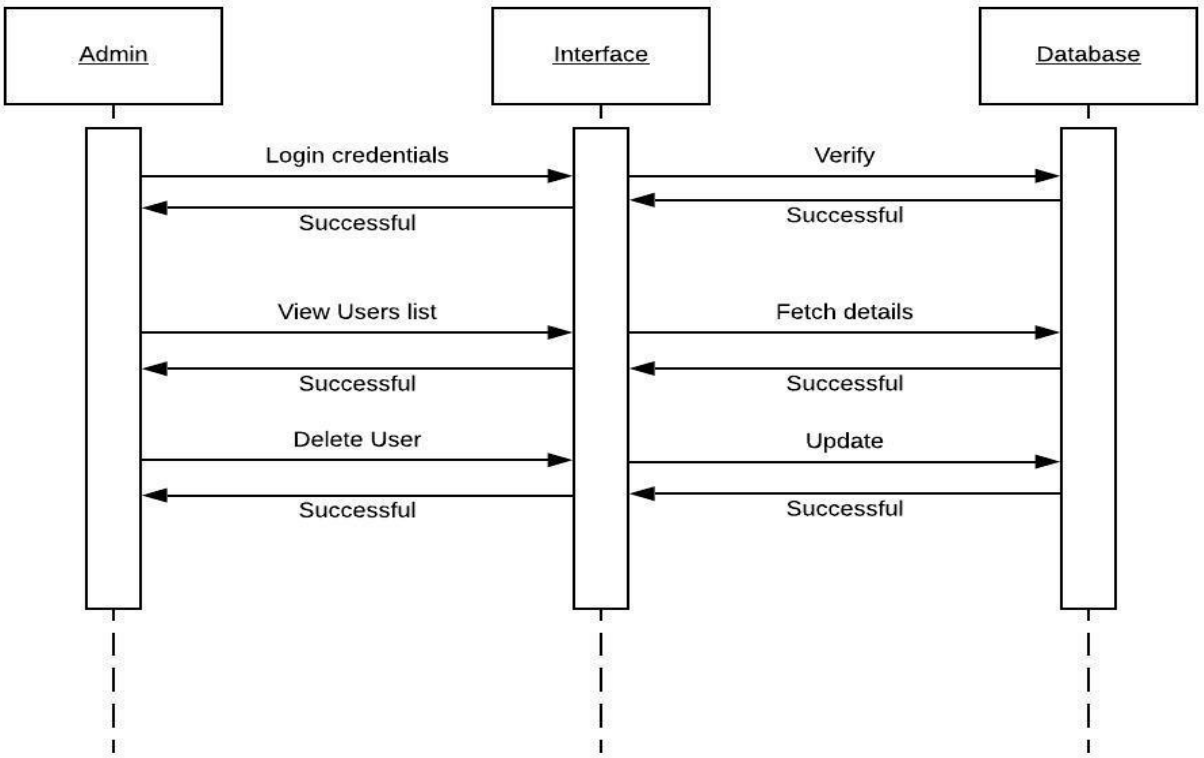
AVILASA DAS | July 2, 2019

5.3 Sequence Diagrams

5.3.1 Sequence Diagram for registering a Complaint

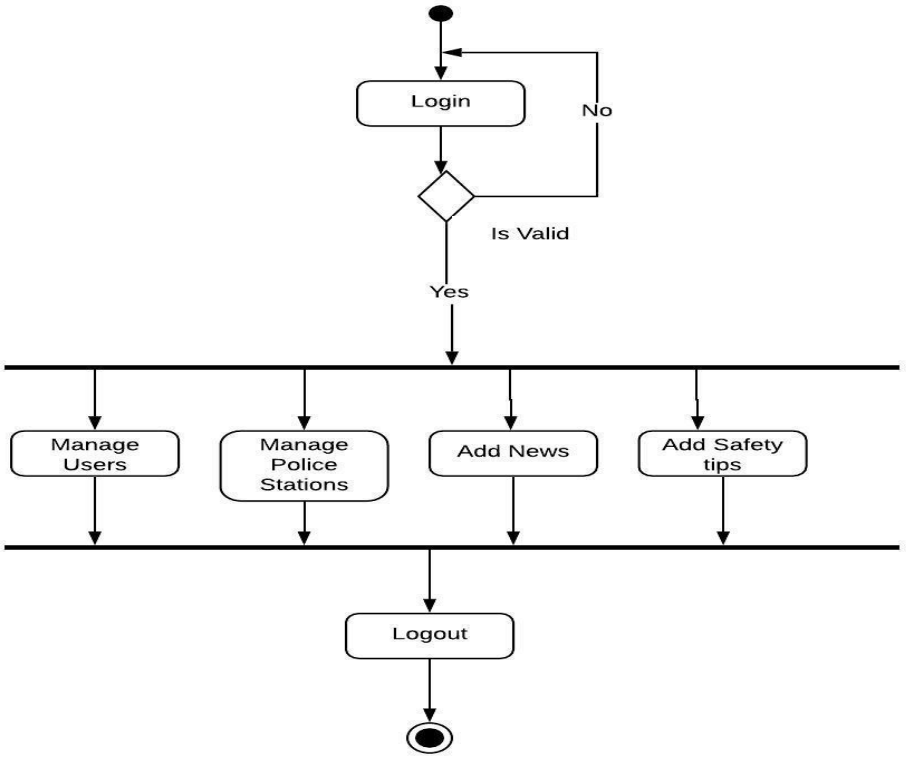


5.3.2 Sequence Diagram for deleting a user

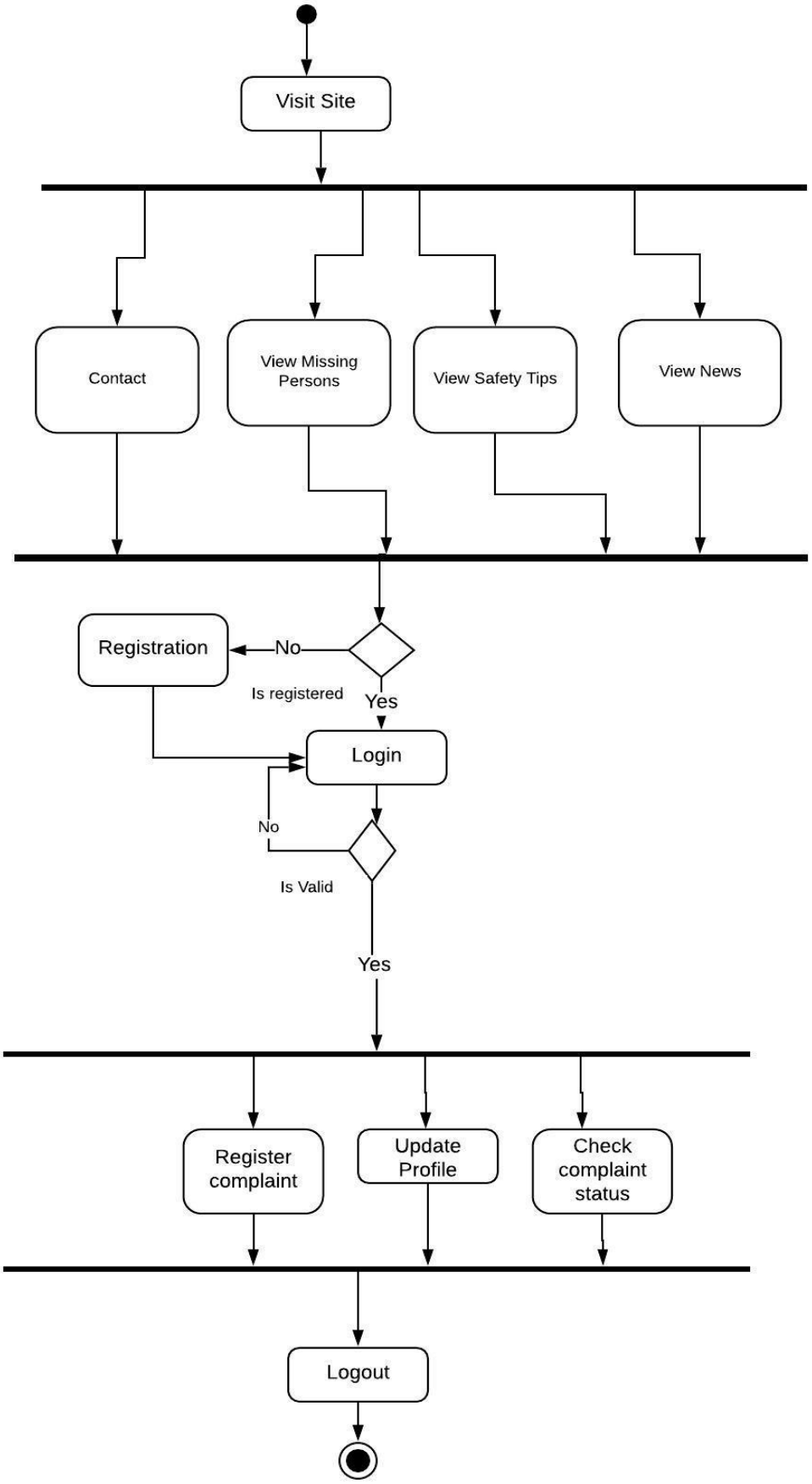


5.4 Activity Diagrams

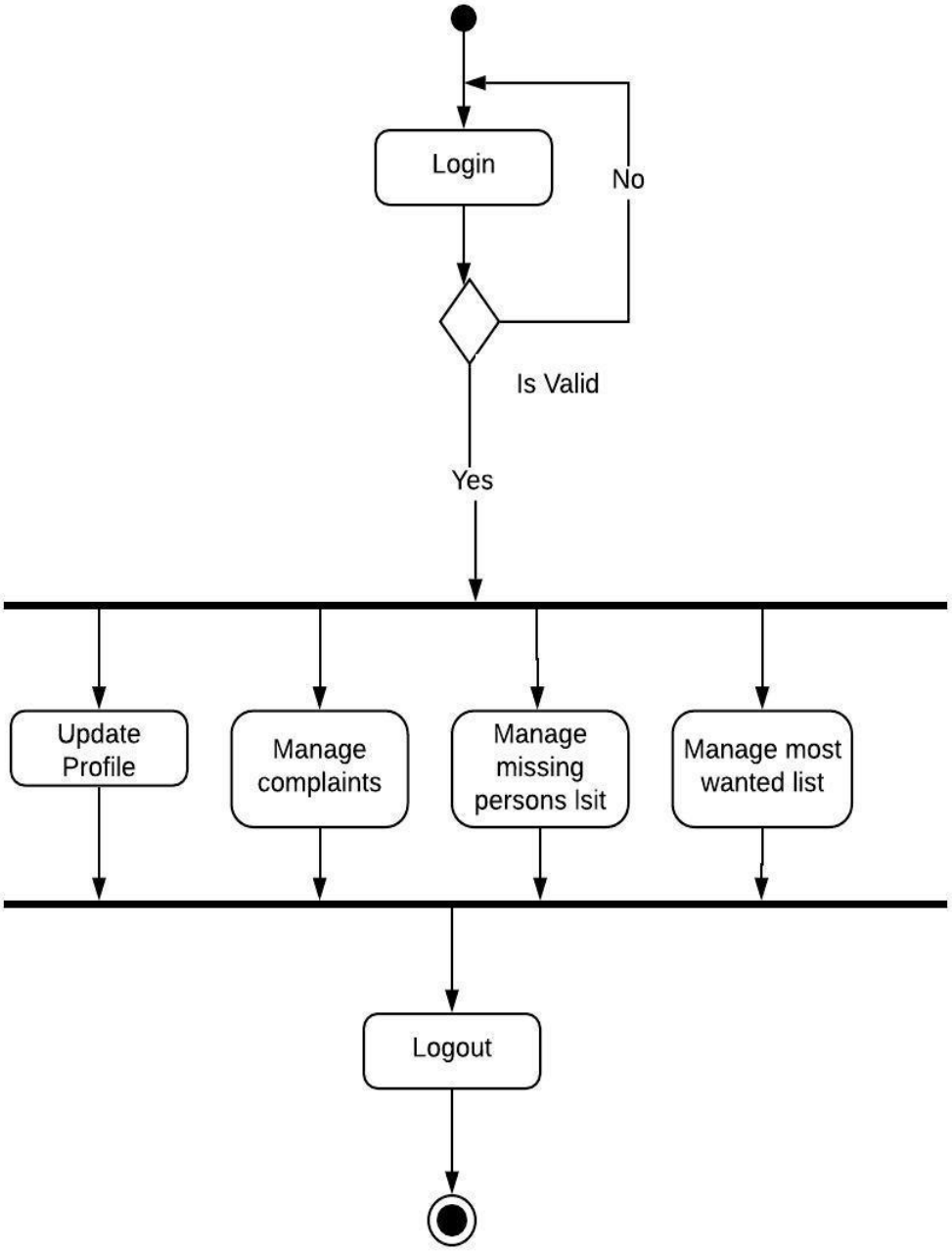
5.4.1 Admin side



5.4.2 User side



5.4.3 Police Station side



5.5 Database table

SL No.	TABLE NAME	ATTRIBUTES	DESCRIPTION
1.	admin_tbl	admin_id	INT
		admin_name	VARCHAR
		admin_password	VARCHAR
2.	User_tbl	User_id	INT
		Name	VARCHAR
		Address	VARCHAR
		City	VARCHAR
		Mobile	VARCHAR
		Email	VARCHAR
		Gender	VARCHAR
		Birth_date	DATE
		UserName	VARCHAR
		Password	VARCHAR
		Station_name	VARCHAR
		Verification_proof	VARCHAR
3.	policestation_tbl	Station_id	INT
		Station_name	VARCHAR
		Address	VARCHAR
		City	VARCHAR
		Email	VARCHAR
		Mobile	VARCHAR
		UserName	VARCHAR
		Password	VARCHAR
4.	complaint_tbl	Complaint_id	INT
		User_id	INT
		Station_name	VARCHAR
		Complaint_type	VARCHAR
		Complaint_desc	VARCHAR
		Complaint_date	DATE
		Status	VARCHAR
5.	missingperson_tbl	Person_id	INT
		First_Name	VARCHAR
		Middle_name	VARCHAR
		Last_name	VARCHAR
		Gender	VARCHAR
		Birth_date	DATE
		Weight	INT
		Height	FLOAT
		Contact_Person	VARCHAR
		Contact_address	VARCHAR

		Contact_city	VARCHAR
		Contact_mobile	VARCHAR
		Photo	VARCHAR
		Station_name	VARCHAR
6.	mostwanted_tbl	Wanted_id	INT
		Wanted_name	VARCHAR
		Wanted_location	VARCHAR
		Station_name	VARCHAR
		Wanted_crime	VARCHAR
		Wanted_desc	VARCHAR
7.	feedback_tbl	Feedback_id	INT
		Name	VARCHAR
		Email	VARCHAR
		Mobile	VARCHAR
		Feedback	VARCHAR
8.	news_tbl	News_id	INT
		News_title	VARCHAR
		News_date	DATE
9.	tips_tbl	Tips_id	INT
		Tips_detail	VARCHAR

Chapter 6

System Testing

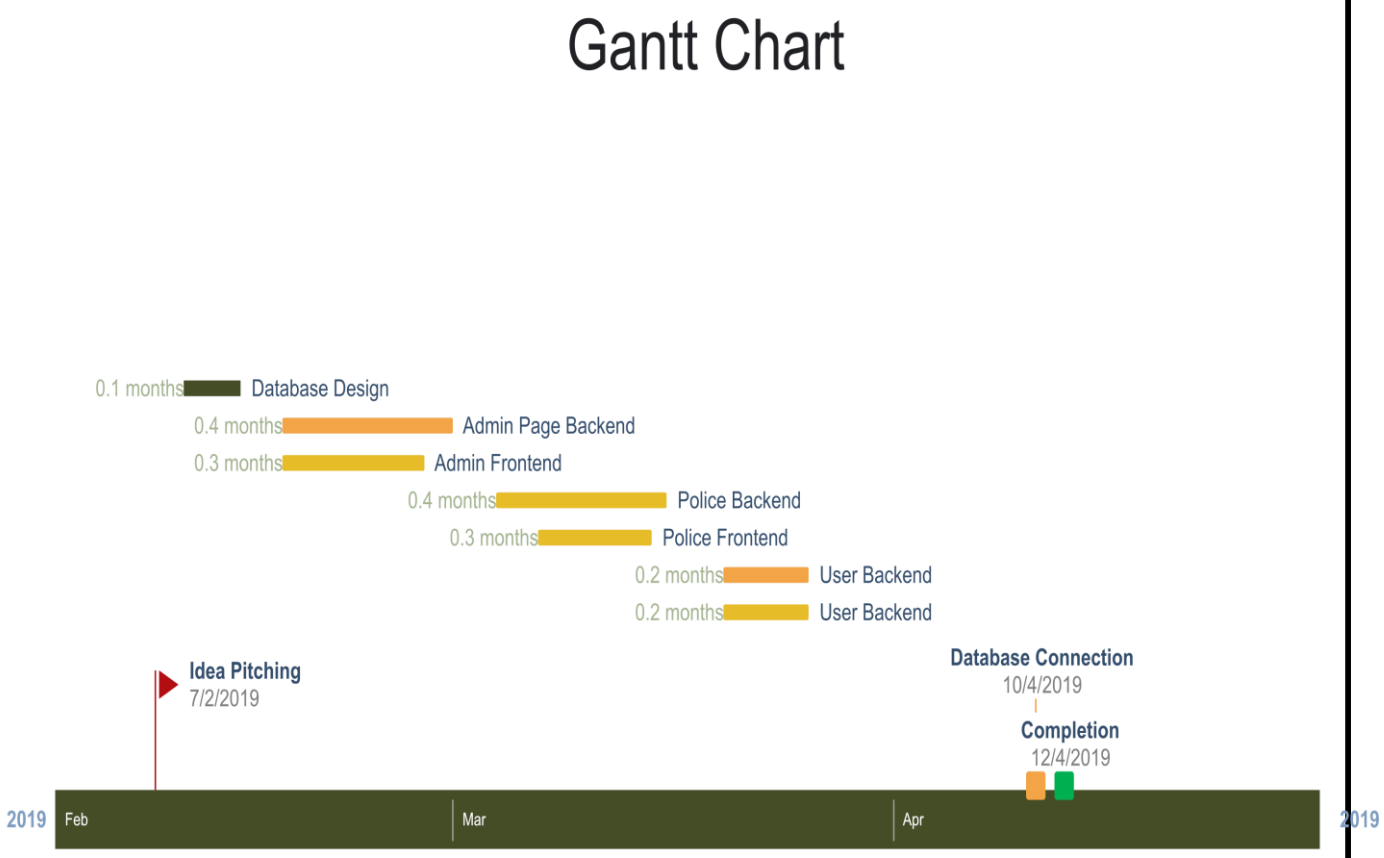
6.1 Test Cases and Test Results

Test ID	Test Case Title	Test Condition	System Behaviour	Expected Result
T01	AdminTest User_id (positive test)	Correct UserName and password entered	Logged in to admin page.	Admin page Login
T02	AdminTest User_id (Negative test)	Incorrect UserName or Password entered	The floating bar appears. Localhost says 'Wrong UserName or Password'	Unable to login in to the admin page
T03	UserTest User_id (Positive test)	Correct UserName and password	Logged in to user page	User page login
T04	UserTest User_id (negative test)	Incorrect UserName or Password entered	The floating bar appears. Localhost says 'Wrong UserName or Password'	Unable to login into User page
T05	PoliceTest User_id (Positive test)	Correct UserName and password entered	Logged in to Police page.	Police page Login
T06	PoliceTest User_id (Negative test)	Incorrect UserName or Password entered	The floating bar appears. Localhost says 'Wrong UserName or Password'	Unable to log in to Police page

Chapter 7

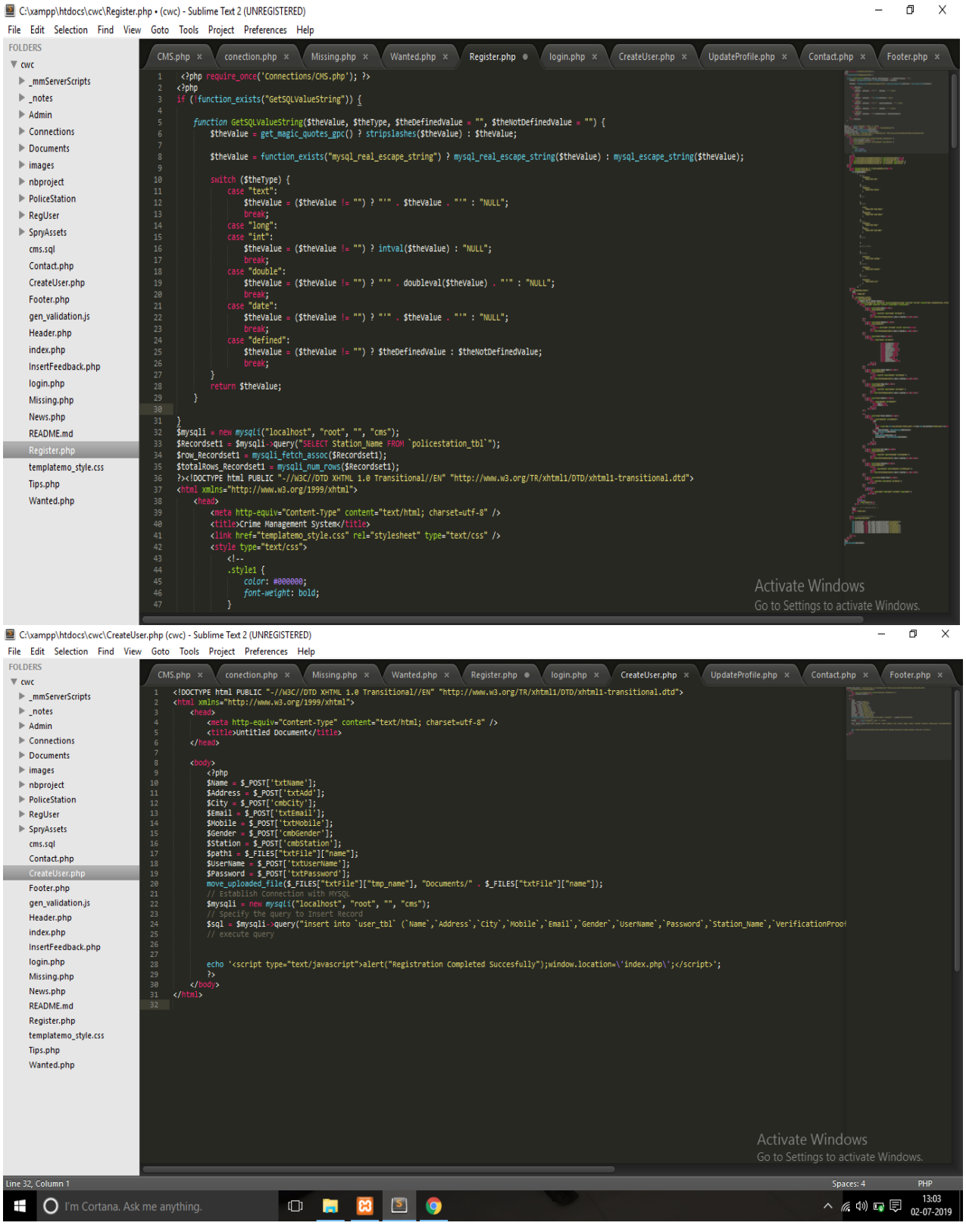
Project Planning

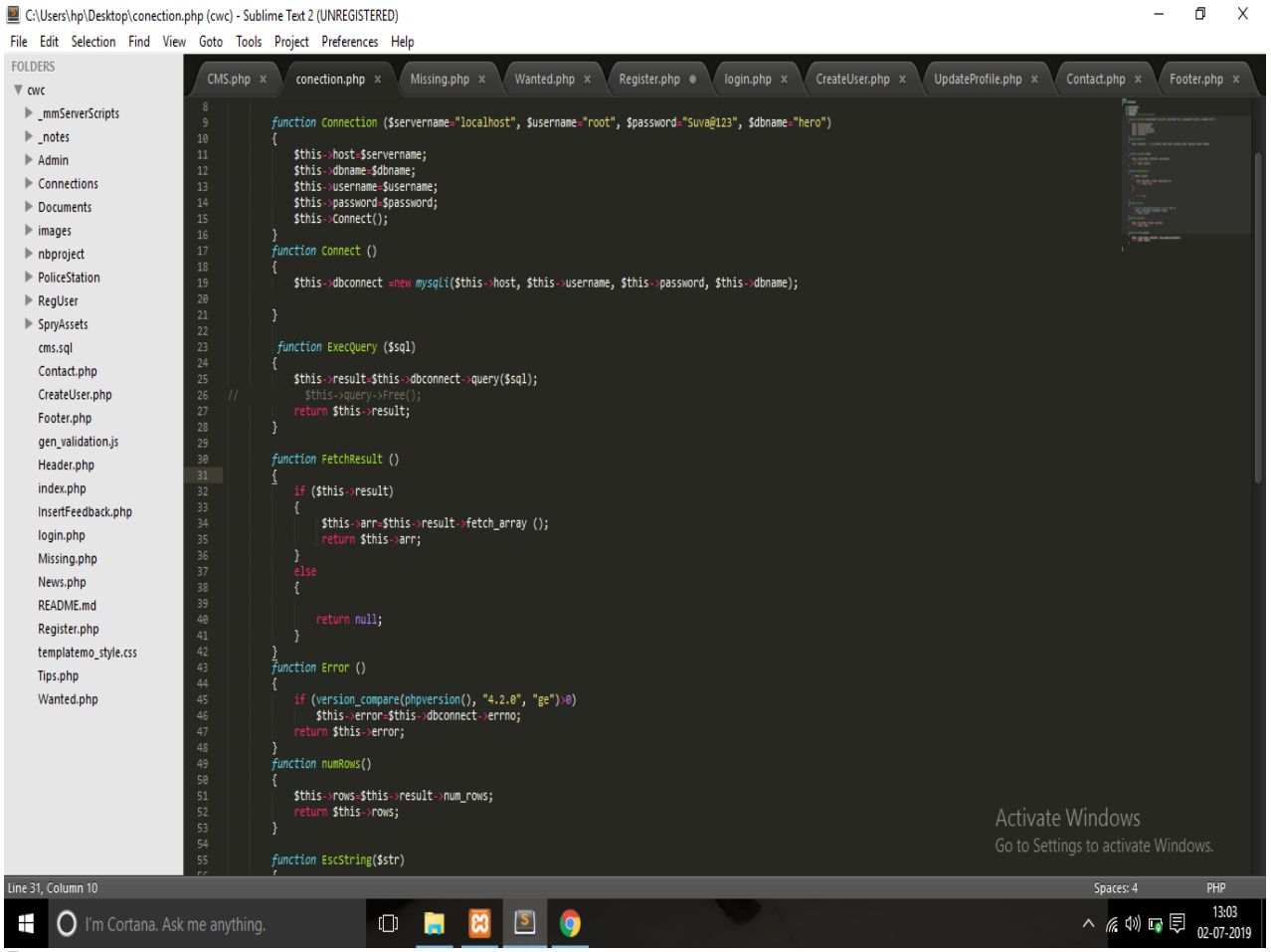
Fig 7.1: GANTT CHART

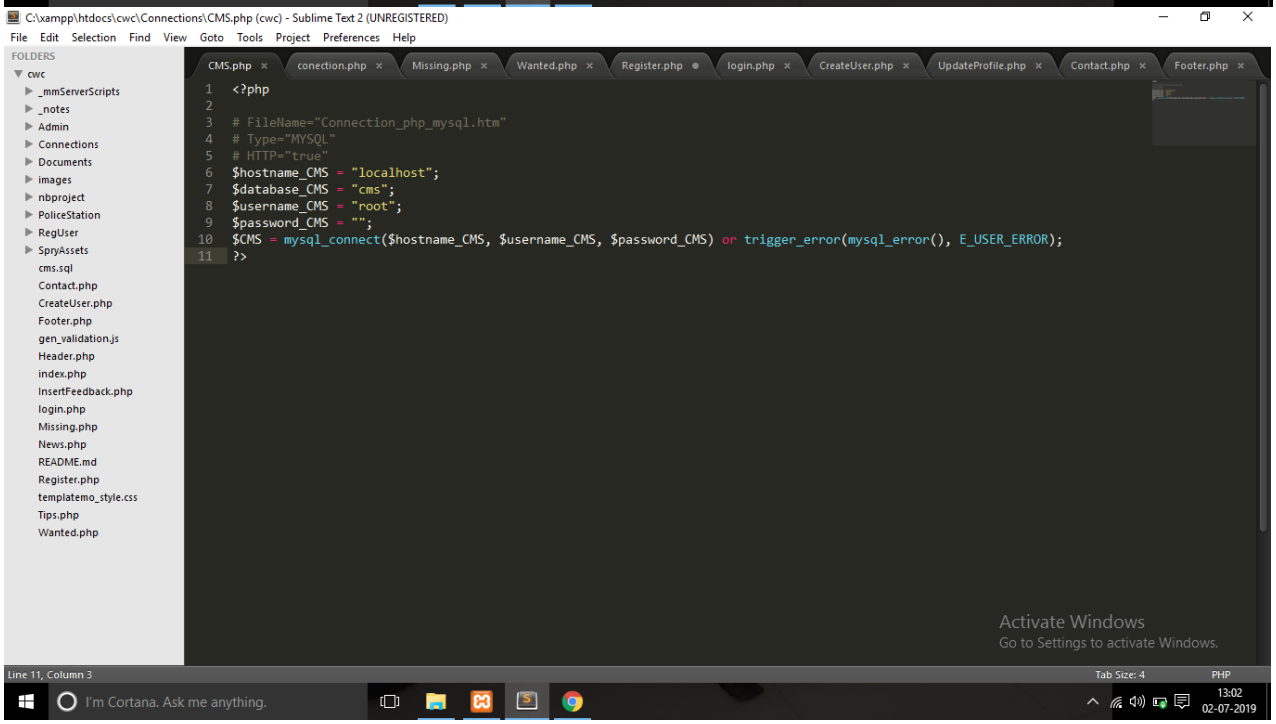


Chapter 8

Implementation







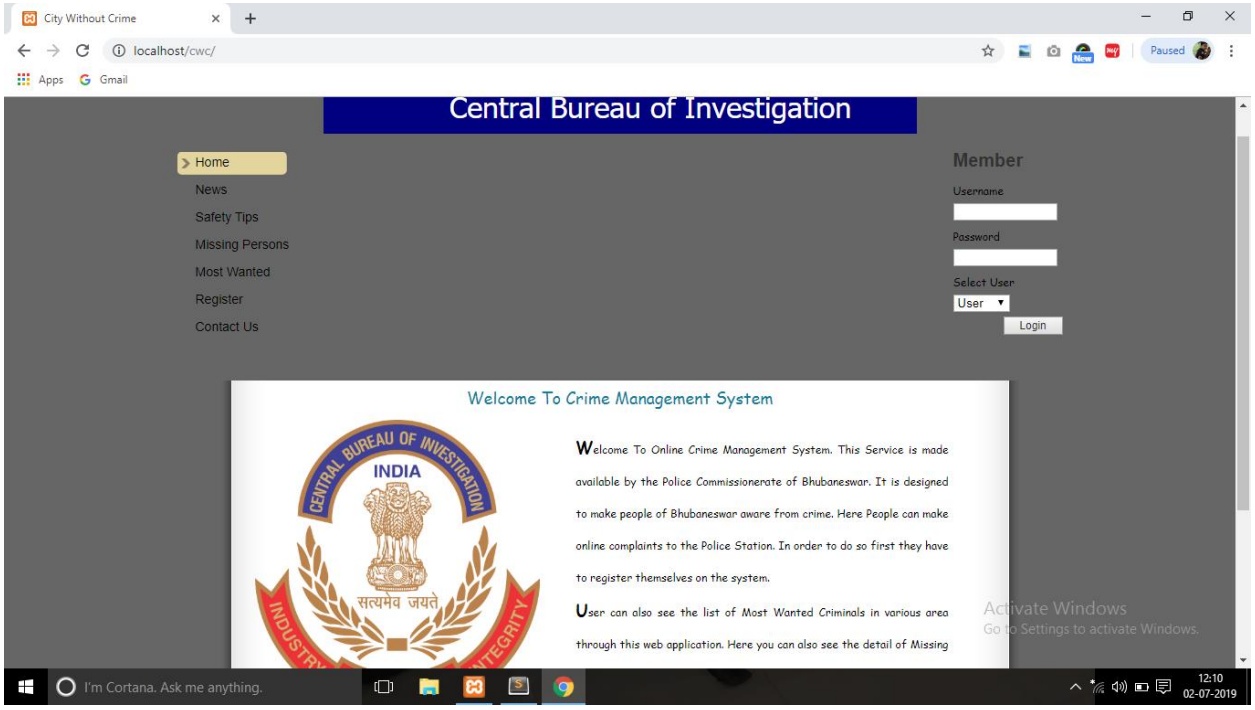
These are the screenshots of PHP code pages:

CMS page, connection page, create a user page and register page

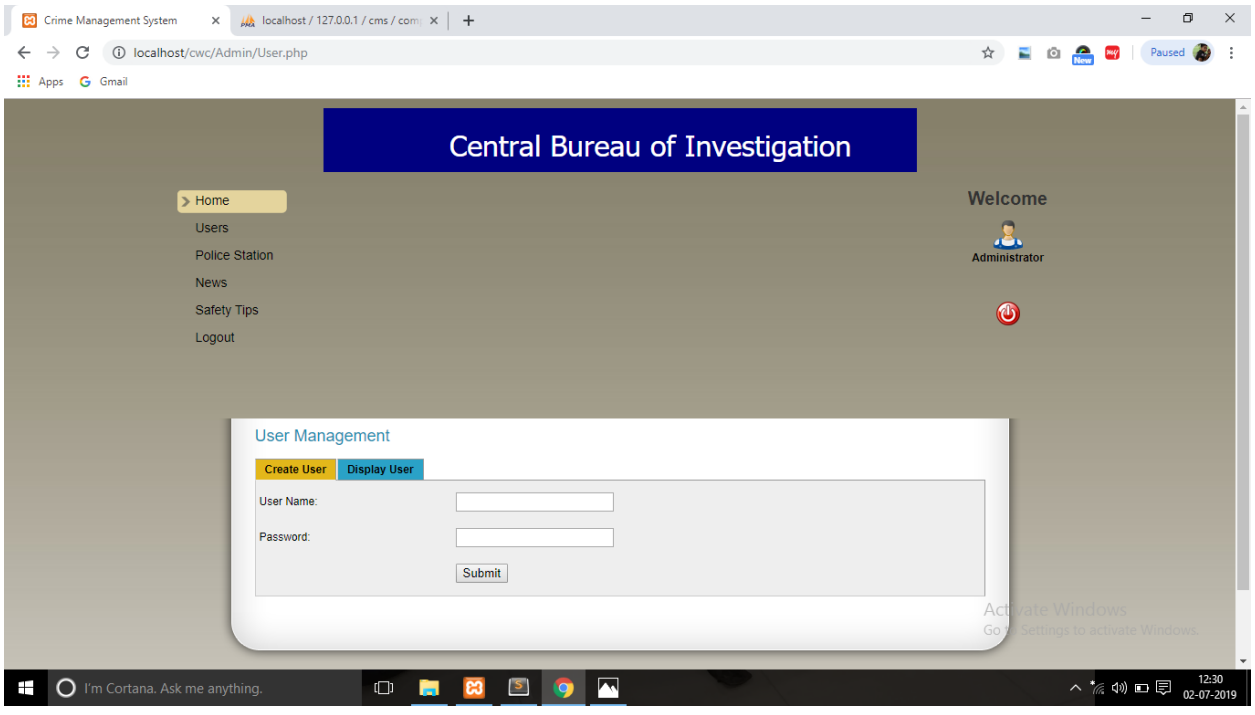
Chapter 9

Screenshots of Project

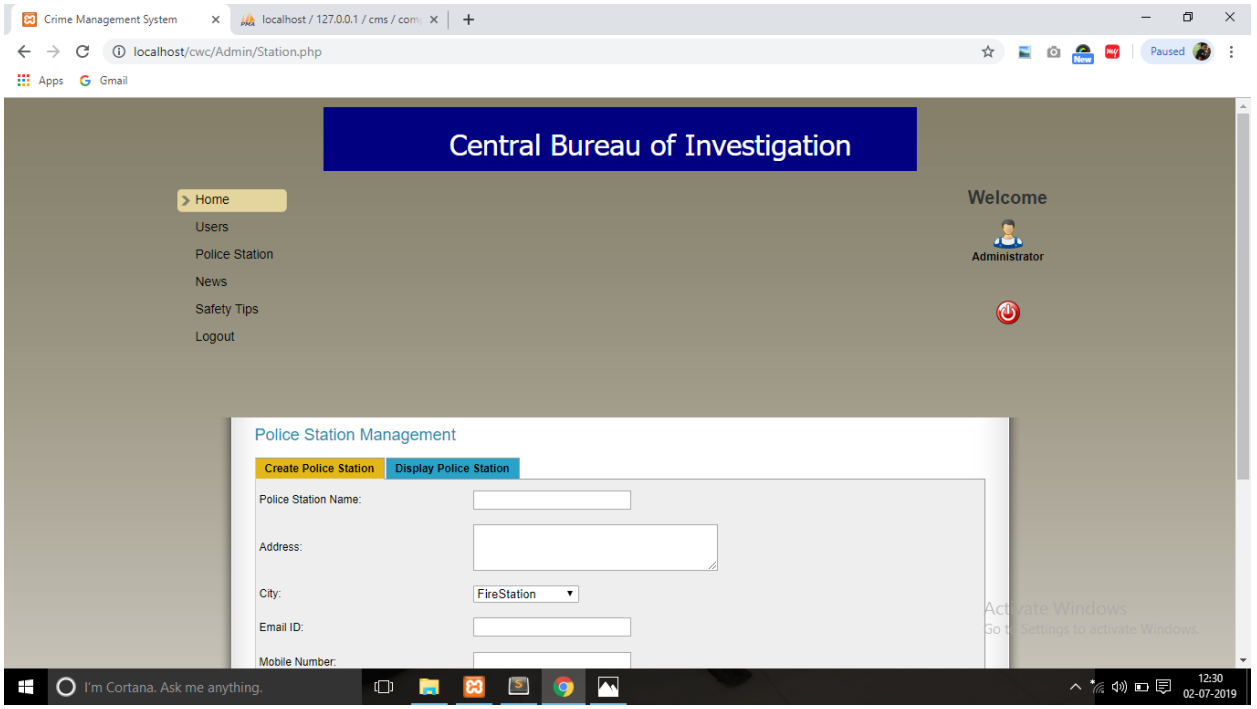
1. Home Page



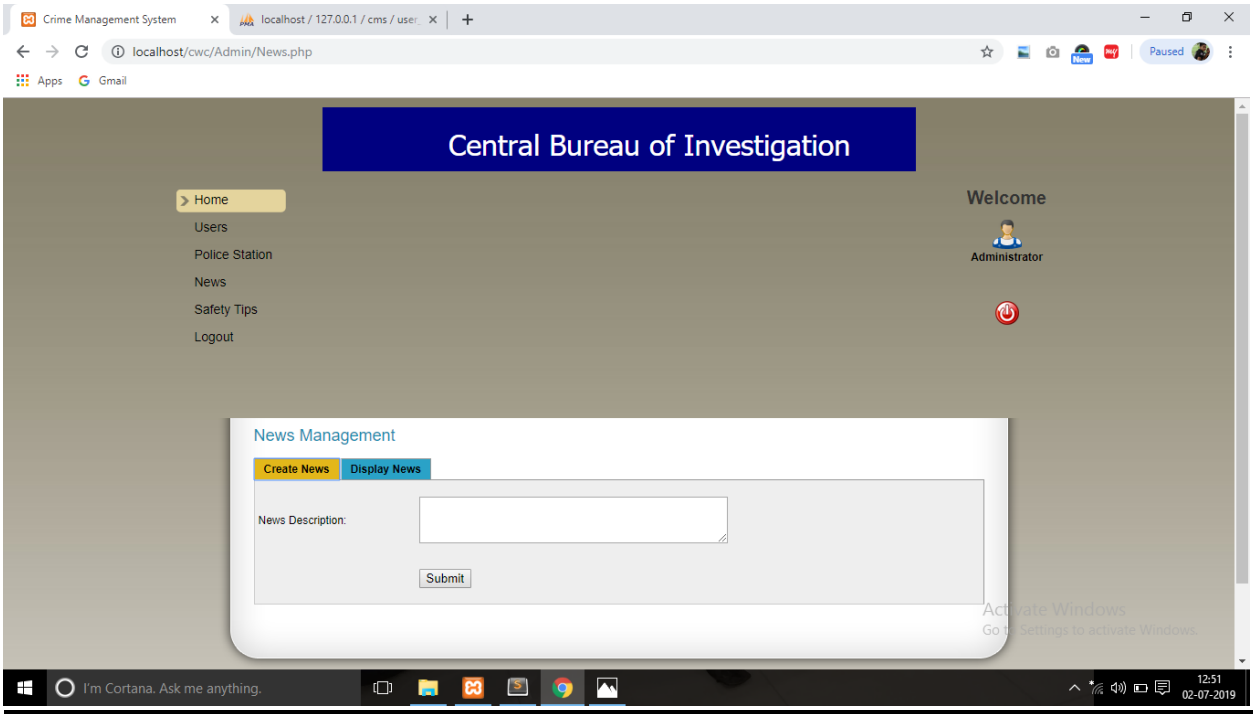
3. Create a user page of the admin



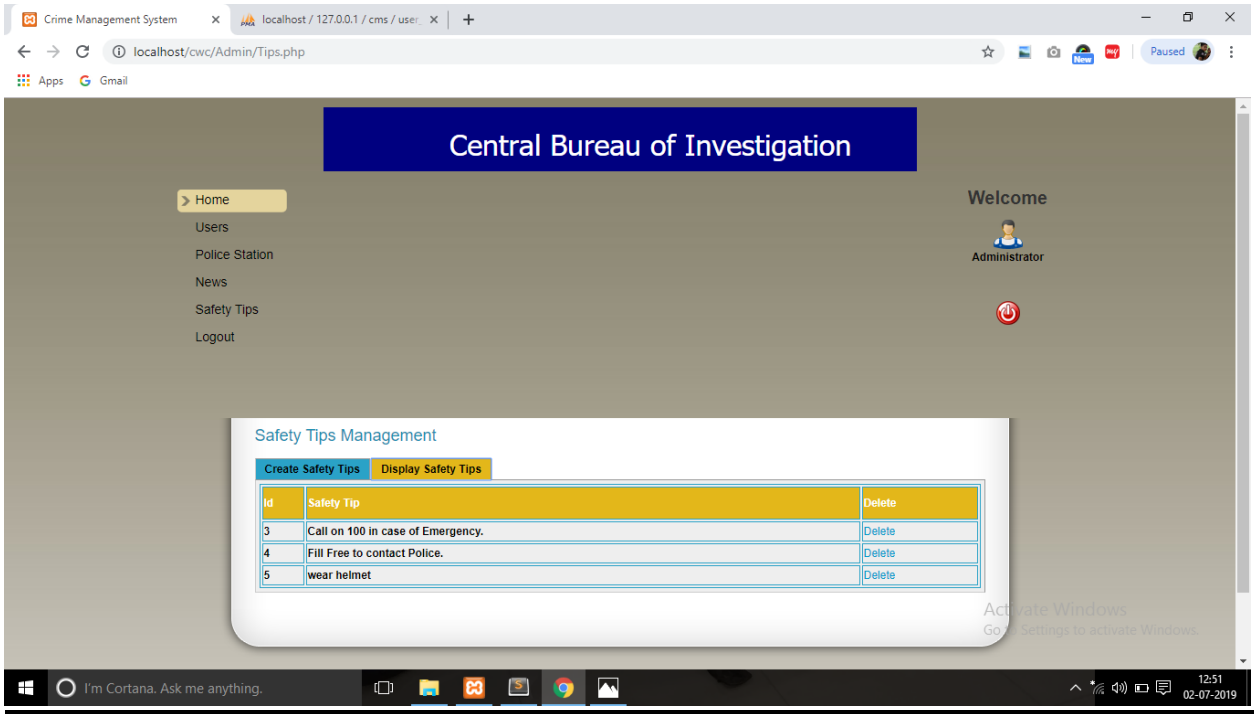
3. Create police station page of admin



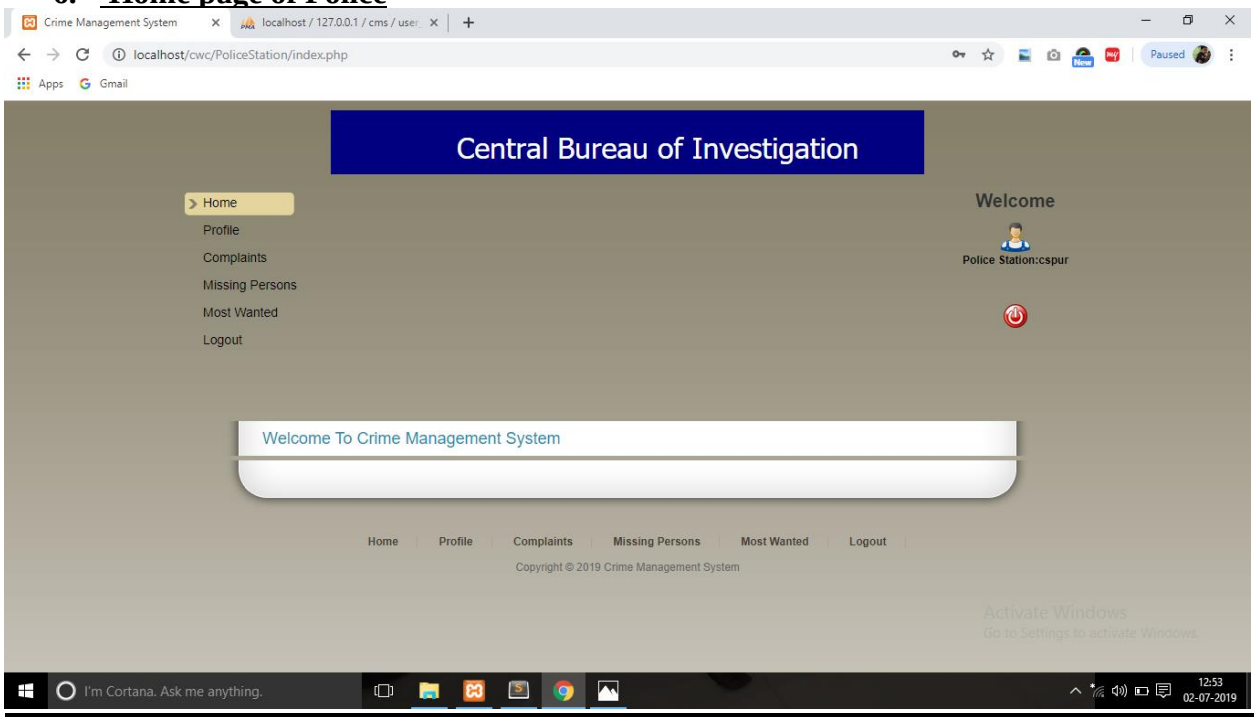
4. Create a News page of the admin



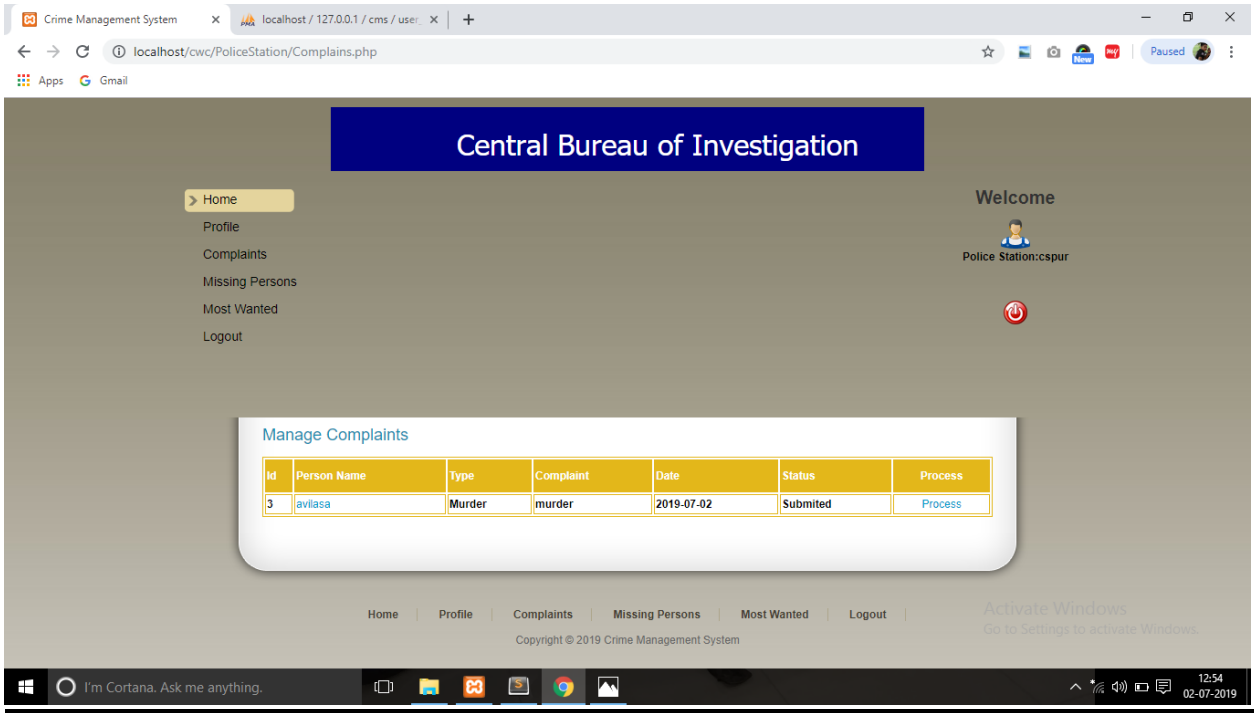
5. Create the Safety Tips page of the admin



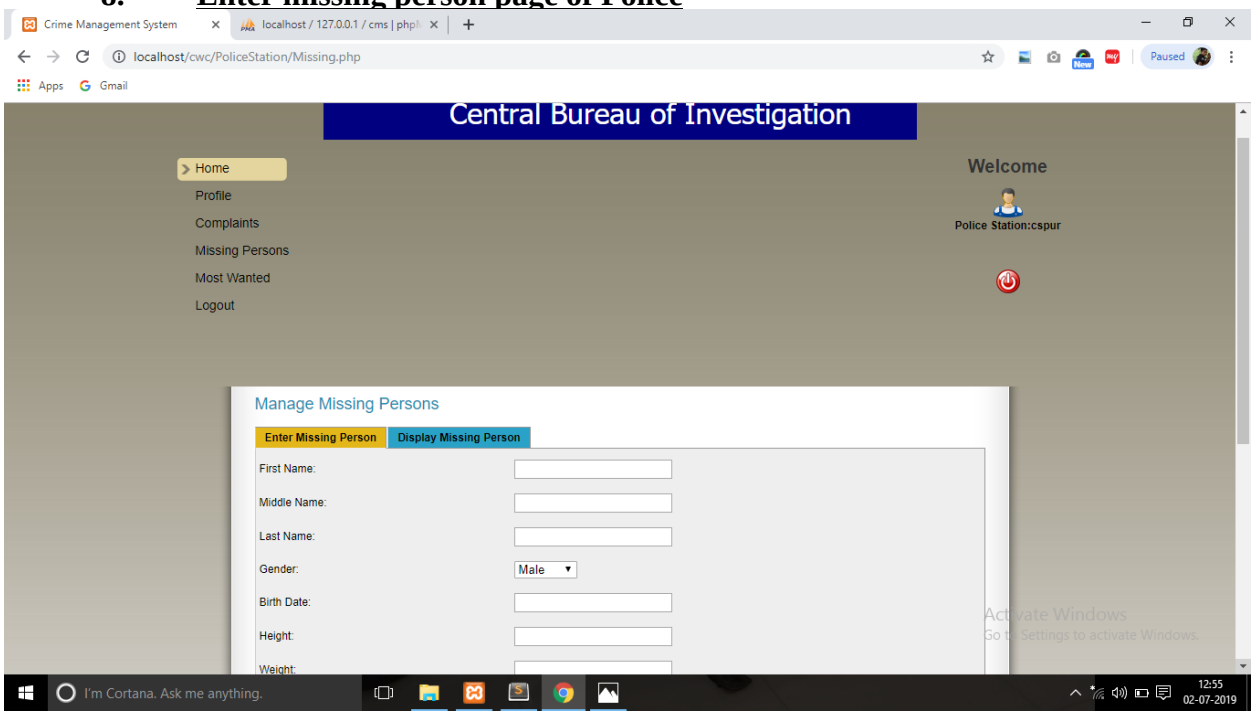
6. Home page of Police



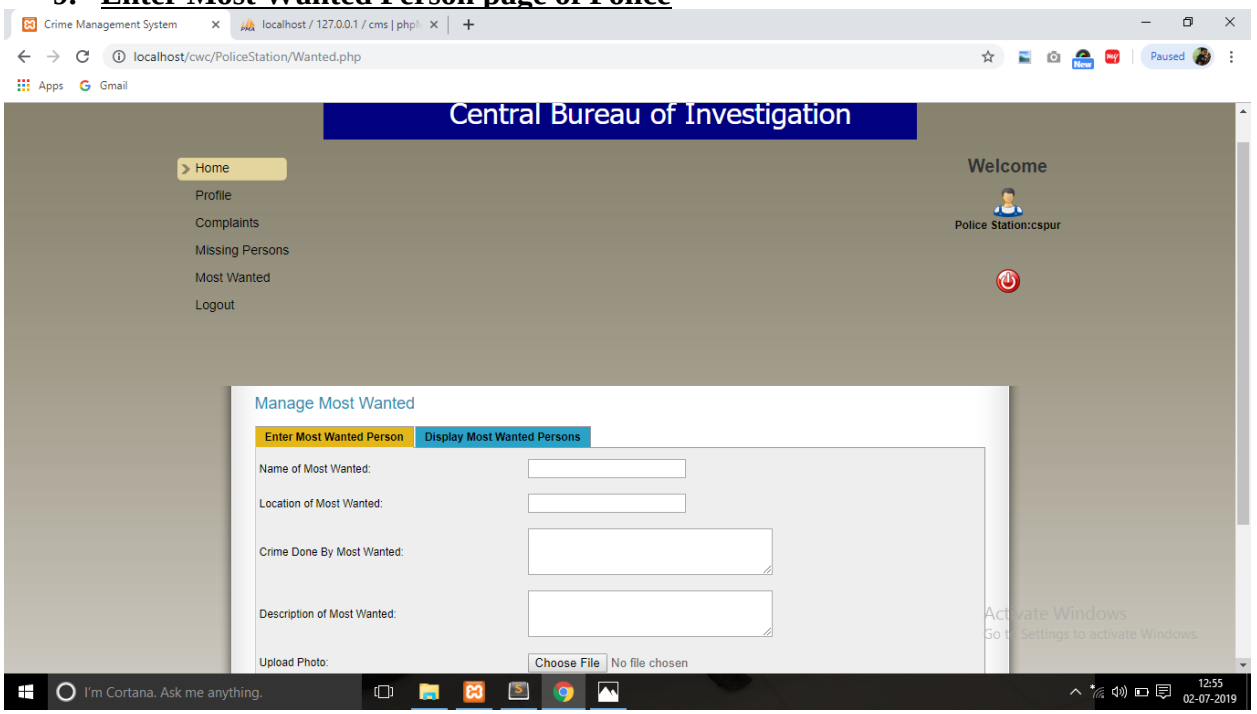
7. Manage Complains page for Police



8. Enter missing person page of Police

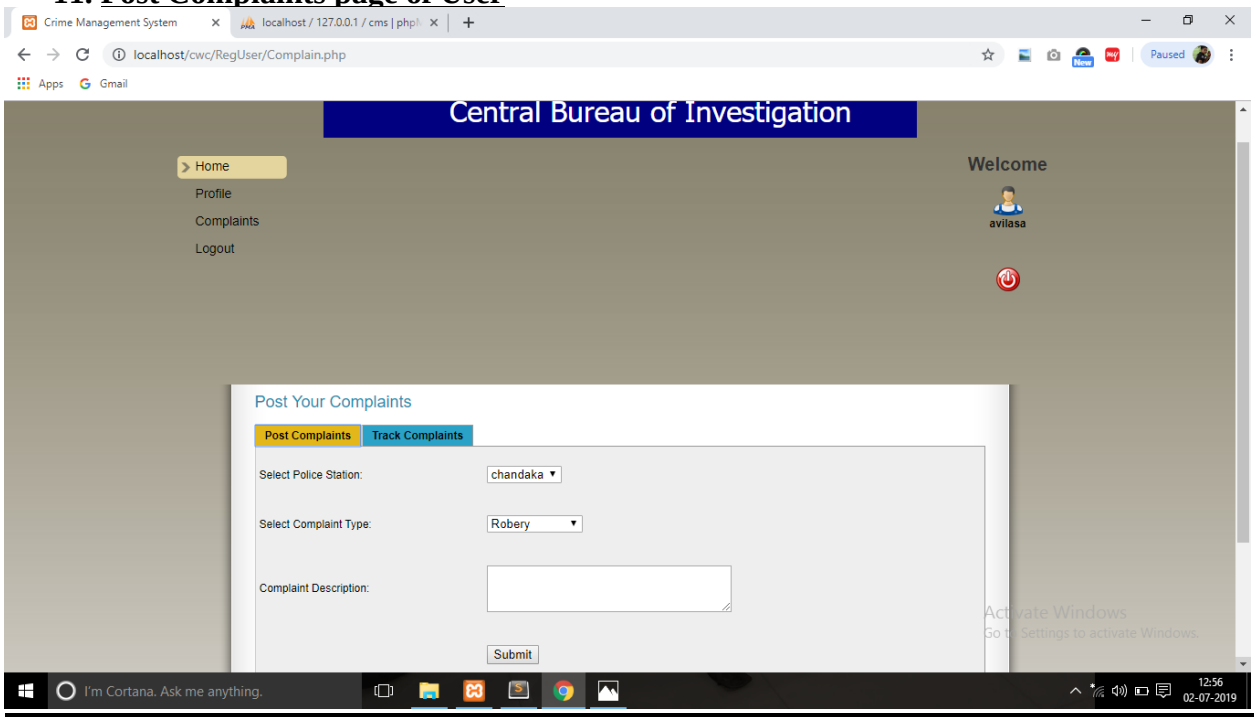


9. Enter Most Wanted Person page of Police

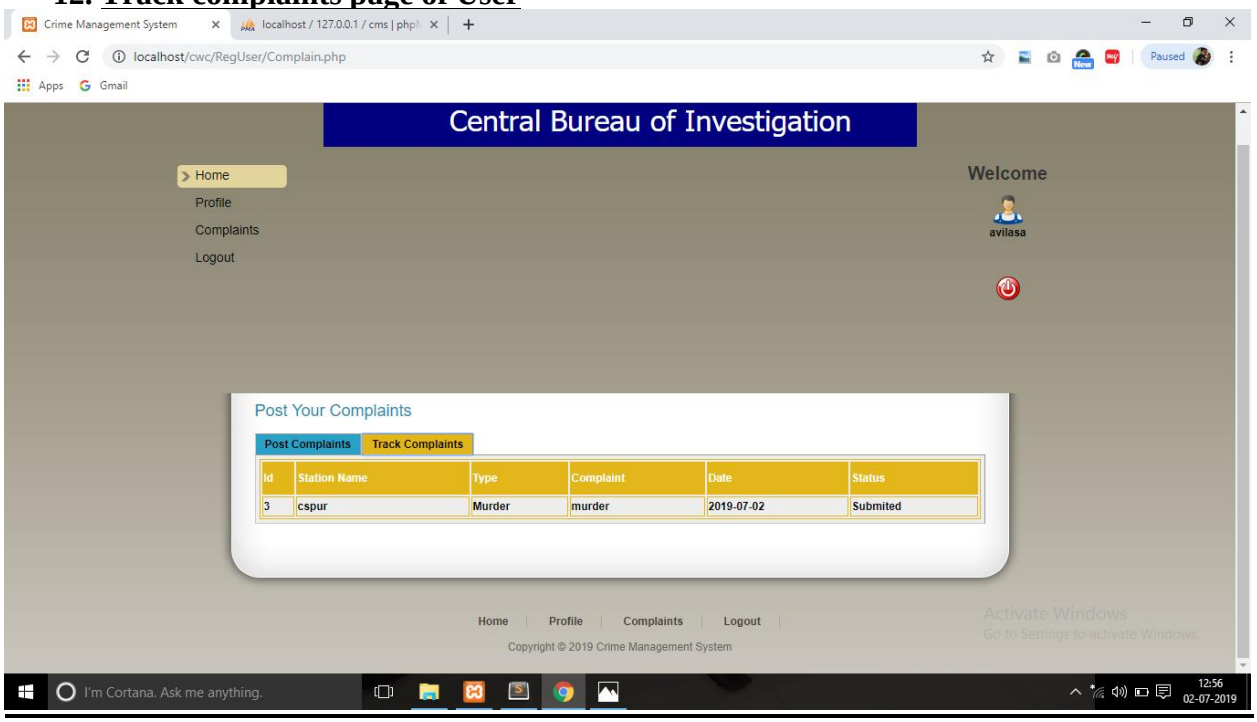


10. Profile page of User

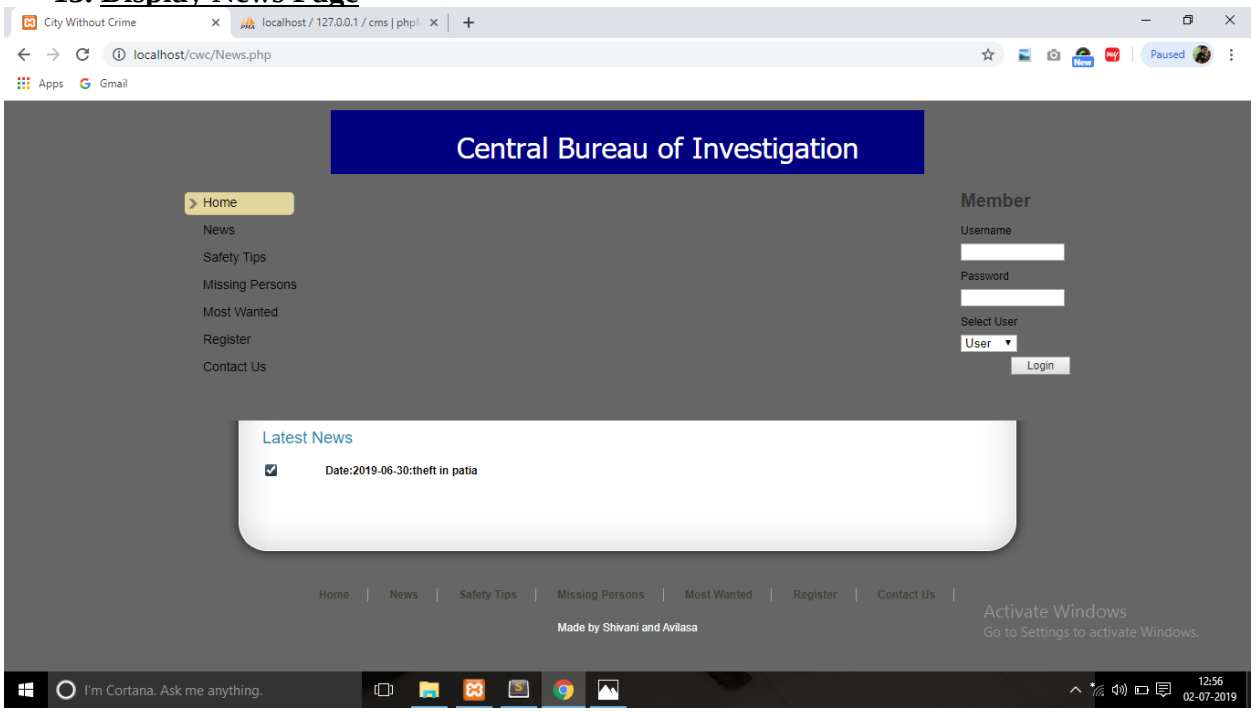
11. Post Complaints page of User



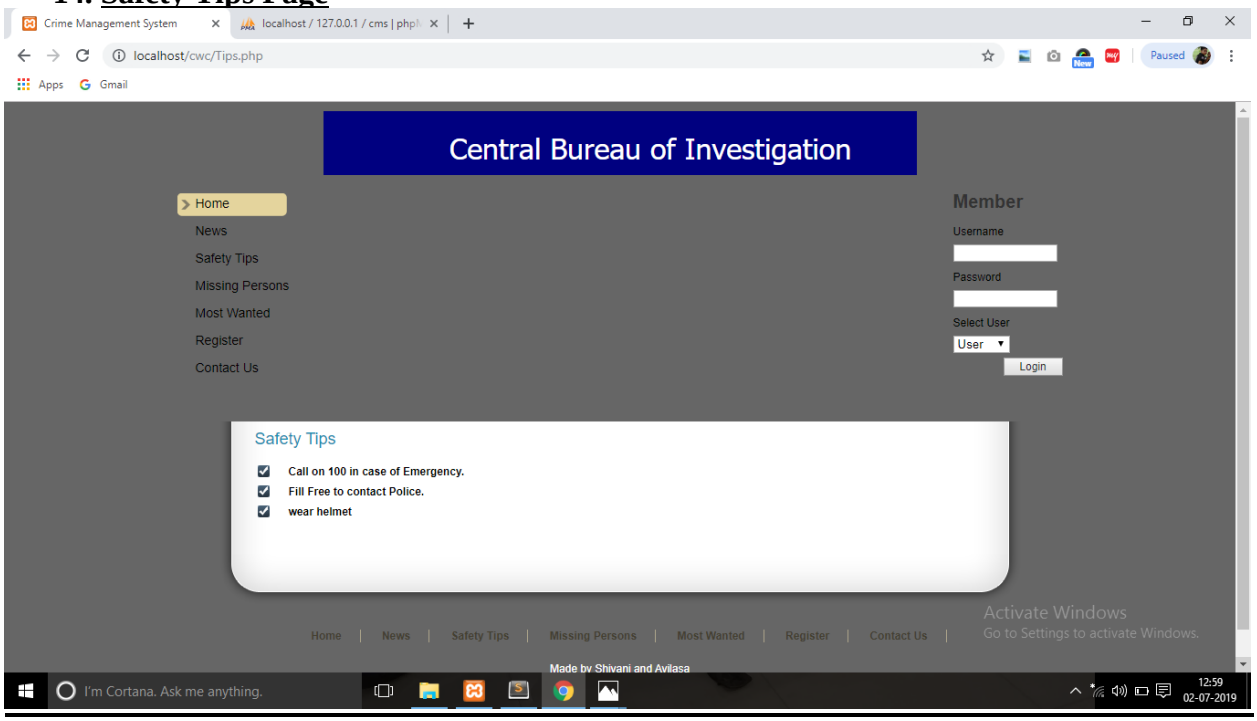
12. Track complaints page of User



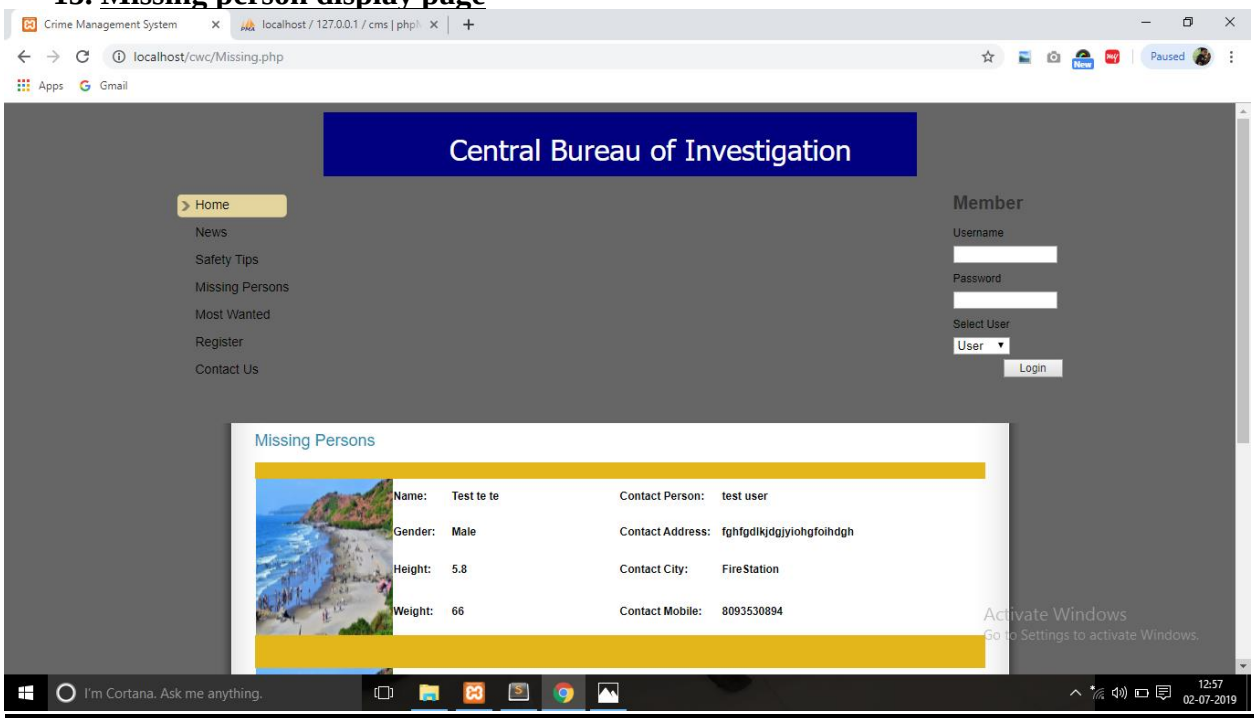
13. Display News Page



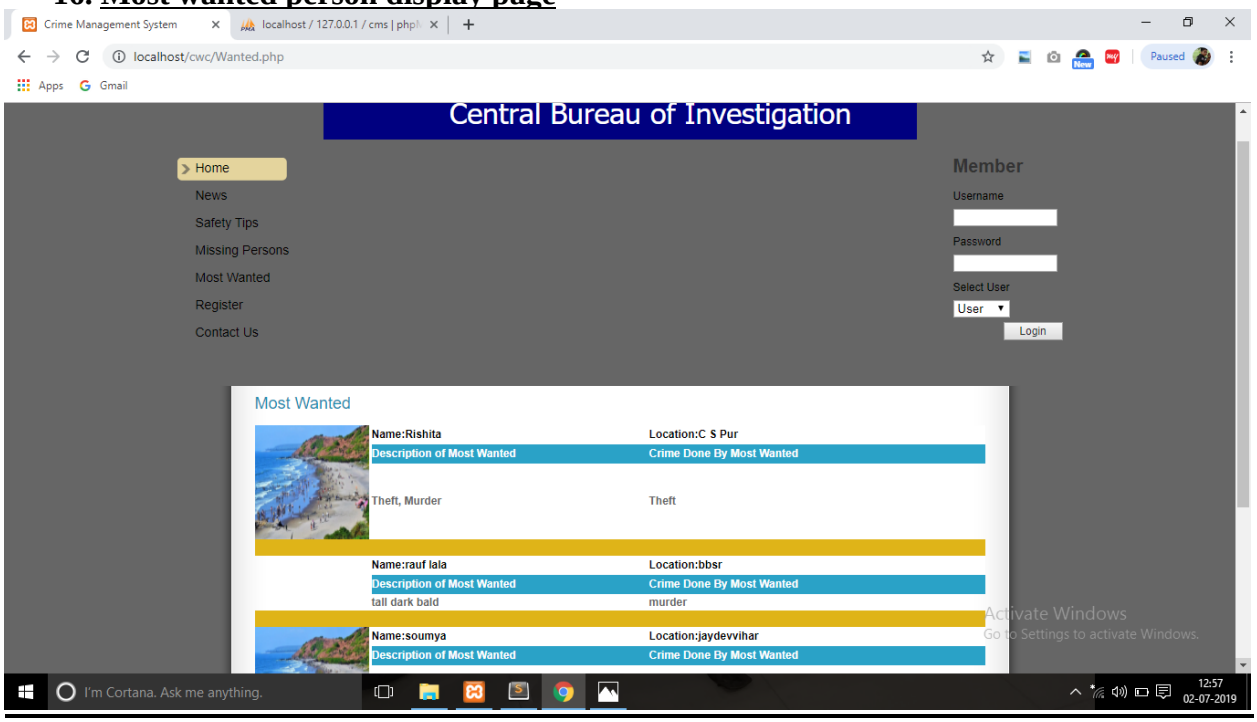
14. Safety Tips Page



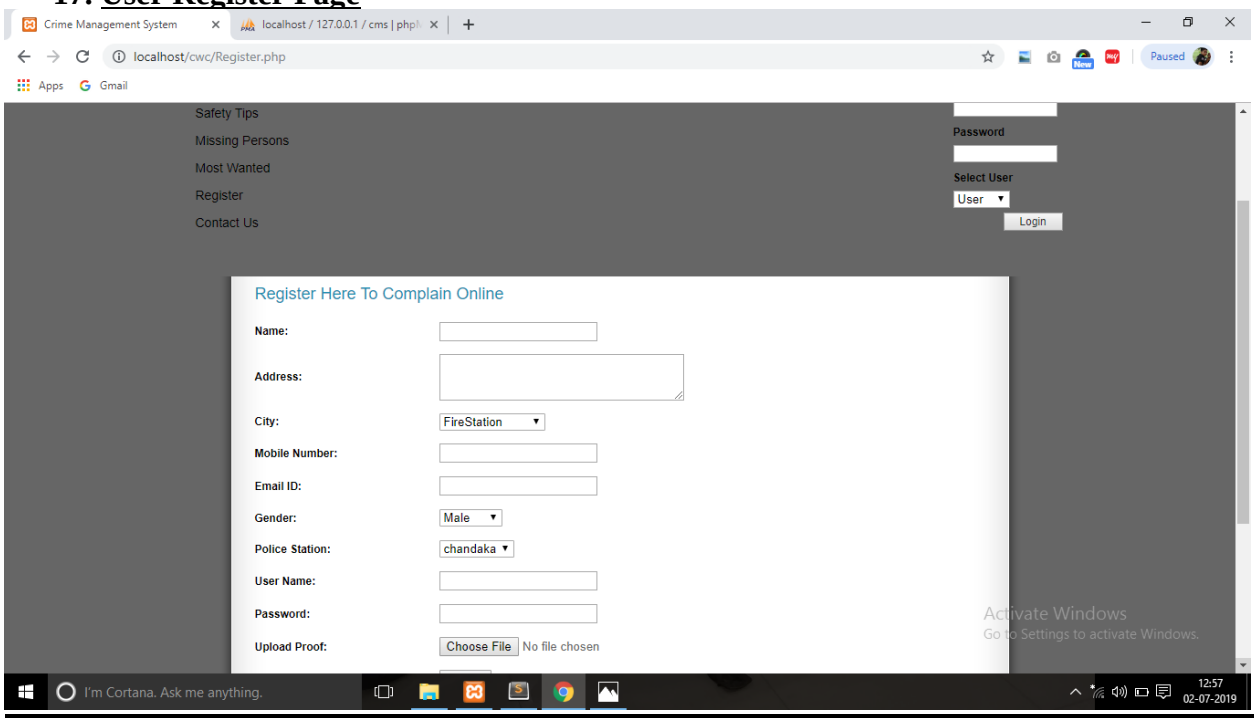
15. Missing person display page



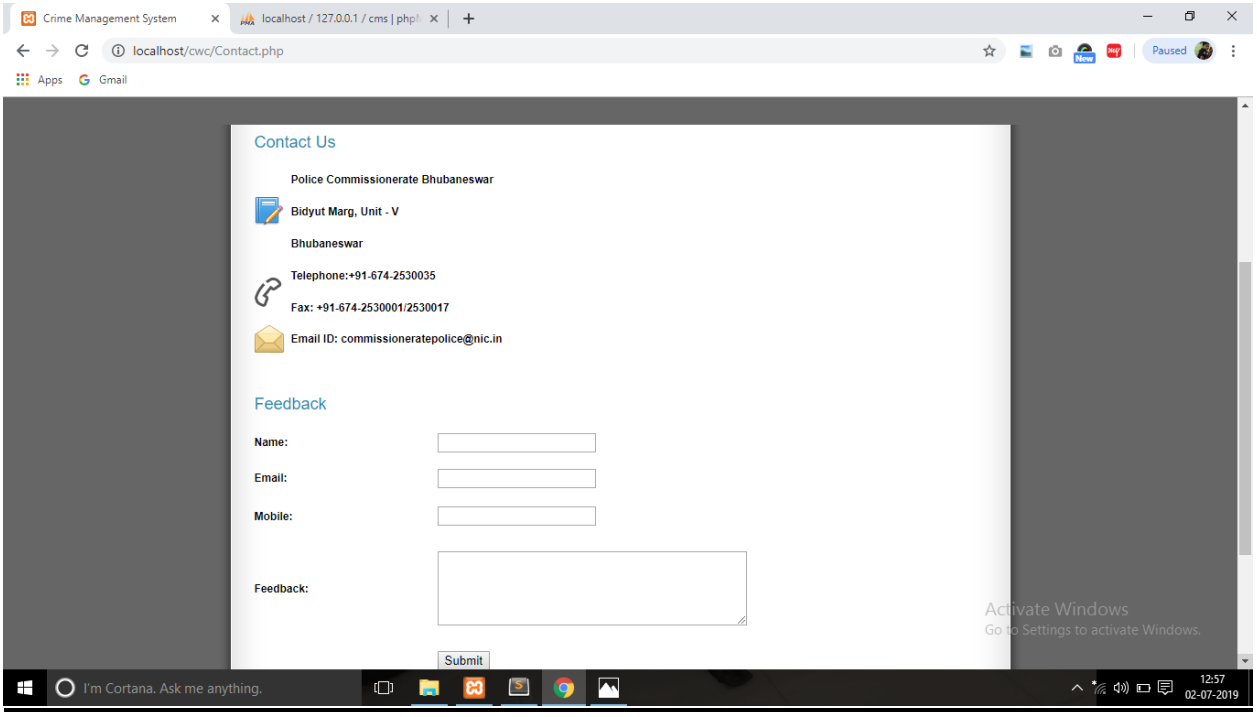
16. Most wanted person display page



17. User Register Page



18. Contact Us Page



Chapter 10

Conclusion and Future Scope

10.1 Conclusion

Nowadays everything is getting computerised. Manual work usually consumes a lot of time and is error-prone. To make complaining easy and manage crime records, this application is beneficial. Thus, Crime Management System overcomes most of the existing system's limitations and is a very user-friendly application.

10.2 Future Scope

1. Biometric can be added

2. Face Recognition can be added

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