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CRIME RECORD AND COMPLAINT SYSTEM USING PYTHON

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A project submitted in partial fulfillment of the requirement for the
degree of Bachelor of Science in Software Engineering

Department of Software Engineering
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APPROVAL

This Project titled “**CRIME RECORD AND COMPLAINT SYSTEM**”, submitted by Saika Chowdhury Samiha, 162-35-152, to the Department of Software Engineering, Daffodil International University has been accepted for the partial fulfillment of the wants for the degree of B.Sc. in Software Engineering and approved on its style and contents.

DECLARATION

I hereby declare that this project has been completed by me under the supervision of **Dr.Imran Mahmud**, Associate Professor and Head in Charge, Department of Software Engineering Daffodil International University. I also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

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ABSTRACT

The “**CRIME RECORD AND COMPLAINT SYSTEM**” is a web-based system for online complaining a management of crime records. Here on this website, a person who wishes to file a report an incident must register before login, and once the admin authenticates the user he or she can log in to the website and file a complaint.

This complaint will be received by police and police 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 the works are done in police stations manually. Police get their login password from the admin directly. Police can record all the criminal data and can use it further. So this website helps police to find out the problems in the society without them coming to the police station.

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Chapter-1

1.Introduction

The project titled "**CRIME RECORD AND COMPLAINT SYSTEM**" is a web-based application. This software provides a facility for reporting online crimes, complaints, missing persons. In this platform, people can easily file their complaints and can get help online. Police can record all the crimes and criminals.

1.1 Project Overview

The project "**CRIME RECORD AND COMPLAINT SYSTEM**" in the perspective of Bangladesh is a Criminal record and complaint system that uses to store the criminal activities of criminals and file a complaint against the criminal. This project is mainly useful for law and enforcement agencies in Bangladesh. The law and enforcement authority can preserve records of the criminals and search for any criminal using the system. This is a web application with a database system in which police will keep the record of criminals who have been arrested. We have used HTML, JavaScript, CSS, Python, MySQL, and Django to develop this project. The project's interface is very user-friendly and helpful for authority.

1.2 Purpose and Scope

The project is aimed to develop a crime file to maintain computerized records of all the crime. This system can be used as an application for the crime file of the police department to manage the records of different activities related to the first information report. In the suck desktop crime file system, we will manage all such activities (like registration of the criminal, updating information, a search of particular viewing of the respective reports of crimes) that will save time, manpower.

1.2.1 Background

The system has been developed to override the problems prevailing in the practicing manual system. This system is supported to eliminate in some cases reducing the hardships faced by the existing system.

Requirement of Project Build.

Django framework

Microservices,

MySQL
HTML,
CSS,
Python,
Xampp local server

1.2.2 Benefits & Beneficiaries

Many current crime management systems face several difficulties, as there is no means to report crime instantly other than phone calls, messaging or face-to-face complaint filing.

The objective of this system can broadly be listed as follows:

- To keep a record of the criminals
- To file a complaint against crime and criminal
- To keep a record of criminals details
- To keep a record of crime activities
- Reduce manual records keeping

1.2.3 Goal

It is proposed to centralize Information Management in Crime for fast and efficient sharing of critical information across all Police Stations. The system will be implemented across Cities and Towns. It will help normal people to reach the police online and can get help against a complaint.

This system will gradually reduce the crime rate in cities. This is an online web application with a database in which police will keep the record of criminals. This will help the police department to manage its records easily.

1.3 Stakeholders

Those who are using our website for any purpose are the stakeholders for our project.

The Police and normal people are the stakeholders here.

1.4 Proposed System Model

The proposed system can overcome all the limitations of the manual system. The system provides proper security and reduces manual work. The existing system has several disadvantages and many more difficulties to work well. The proposed system will help the user to reduce the workload. The proposed system helps the user to work user-friendly and he can easily do his jobs without time lagging.

1.5 Project Schedule

Because our project is large so this will take a little bit more time. But I am trying to finish the web application part from the whole system for our Final Defense. So, I used eight (8) months to make our system. Here's the Gantt chart. So that I can easily find out when I have finished our work.

Finding Idea Proposal:

Serial	Work Description	Start Day	End Day	Total Day
1	Idea Finding With Supervisor	01-092020	03-02-2020	3
2	Feasibility study with Supervisor	05-09-2020	07-09-2020	2
3	Feature Discussion With Supervisor	08-09-2020	08-10-2020	30
4	Work Flow Maintenance	11-10-2020	11-11-2020	30
5	SDLC Selection	12-11 2020	14-11-2020	2

Table 1.1

Requirements Gathering:

Serial	Work Description	Start Day	End Day	Total Day
1	System Flow sketch	15-11-2020	20-11-2020	5
2	Requirement gathering proposed system	21-11-2020	30-11-2020	2
3	Requirement Collection	01-12-2020	20-12-2020	9
4	SRS	21-12-2020	30-12-2020	10
5	All requirement and Information	1-1-2020	10-01-2020	10

Table 1.2

Logical System Design:

Serial	Work Description	Start Day	End Day	Total Day
1	Use case Diagram Design	12-1-2020	22-1-2020	10
2	Activity Diagram	23-1-2020	01-02-2020	9
3	Activity Diagram	02-02-2020	20-02-2020	18
4	Class Diagram	21-02-2020	27-02-2020	7

Table 1.3

Development Phase:

Serial	Work Description	Start Day	End Day	Total Day
1	Build User Module	28-02-2020	05-03-2020	5
2	Build Prescription Module	06-03-2020	12-03-2020	6
3	Build Admin Module	13-03-2020	18-03-2020	5
4	Database Integration	19-03-2020	22-03-2020	3
5	Live Streaming Implementation	23-03-2020	26-03-2020	3
6	Intend All Code	26-03-2020	28-03-2020	2

Table 1.4

1.5.1 Gantt Chart

September	October	November	December	January	February	March
Finding Idea and Planning	Finding Idea and Planning	Finding Idea and Planning				
		Requirement Gathering	Requirement Gathering			
				Logical Design	Logical Design	
					Development	Development

Figure 1.1

1.5.2 Release Plan/Milestone

Release plan-1: I will try to release our system on 1 April 2021.

Because our system is not a small project. I can't finish it within a short time. So, I will update it & release the updated version next time. On our next release date, I will try to use a travel shopping system & will try to make the system more reliable and smooth.

Chapter 2

2. Software requirement specification

Software requirement specification (SRS) is a process of making a document about how the complete system will perform. Software requirement specification has different types. In this chapter, we will learn about the SRS of this system.

2.1 Functional & Non-Functional Requirements List

The crime and criminal record system work the following functions which are stated below.

- The system shall allow the user to log in by user name and password.
- The system shall enable to send forgot passwords through email.
- The system should also provide search capability and allow users to filter the search to a greater detail like crime details, suspect details, victim details, property, victim, arrested, suspect, and witness.
- The system shall enable to register the victim's FIR.
- The system shall enable to register about accused /suspected person information
- The system shall enable to record crime detail
- The system shall enable to record accused or suspected detail
- The system should allow adding complaints: This helps the user to report their complaints.
- The system should allow adding crime reports: This helps the user to report crimes.

Non-functional requirements or system qualities required properties of the system, such as performance, security, maintainability.

Performance: - Since the system uses different algorithms such as stored procedural to access data from a database, it will perform the tasks in a small amount of time with valid crime and criminal information. If the internet connection is available system has no deficiency with the availability of working twenty-four hours a day and seven days a week with maximum response time.

Usability:-The system is designed to have user-friendly interfaces and easy navigation which enhances users' efficacy of usage. It is also designed in such a way that users can easily learn how to interact with the system within thirty to fifty minutes.

Security and Access permissions: -One objective of Security and access permissions is to control input information's about the specific user to reduce errors. When information is entered into the system it should be correct depending on the information stored in the database that stores specific information about a specific user. Validations of passwords, range checks, encrypted password mechanisms, and recovery of passwords are taken into account in our proposed system.

Error handling:-The system will support the prevention of wrong data entry by notifying the user about the possible error.

Efficiency: The response time should be very small i.e. not more than five-second seconds.

Reliability: is the probability that a system will perform its intended function satisfactorily. So, The system works continuously when some interruptions are faced.

User Interface:-The user interface of the system should be user-friendly and easy enough to work with.

Availability: describe the time that our system is ready for use. Availability of our system overview that the system is, operable, or unable to perform it's designated or required function.

2.2 Data Requirements

Data requirement represents the complete data set that is necessary to build the system model. For this particular project, I need to focus on some data, which are given below- 1) For the police:

- a) police can briefly view the new complaint
- b) police can manage criminals (add/update/delete).
- c) can search criminals
- d) focus to record criminal data

2) For the normal User:

- a) User need to give the information for login
- b) User need to provide all the data to file a complaint against the crime and criminal
- c) User can get feedback about the complaint

2.3 Performance Requirement

It shows how perfectly the system works on certain functions. The Example of the performance requirement for this project are speed of response, throughput, execution time, and storage capacity. All of the behavior resolved in my system. My application runs for just 54 seconds.

Now I can manage storage for my application: Server software does not require any special hardware other than the minimum hardware required for running enterprise OS. Extra disk storage will be required for archives and electronic documents. Increases in memory enable efficient query processing, which is required for quick bibliographic search. Minimum processors 1.0 G Hz, at least 4 GB RAM, and 200 GB hard disk is recommended for the server. Client machine with recommended hardware required for desktop operating system and web browser.

2.4 Reliability Requirement

Although for small and simple systems it may be theoretically possible to test every combination of states and inputs, for a system of any size and complexity this is not feasible. I must use probabilities when I refer to software reliability requirements and testing.

So, I tried to make our software more reliable so that users can easily use our system & get better service from us.

2.5 Maintainability & Supportability Requirement

At least one backup server with the same configuration as in the main server is also recommended for fault tolerance and better performance. Separate storage (with backup) for databases, electronic documents, and the manuscript is also recommended. Multiple computing nodes with storage are required for high availability and to enhance the performance of the application. Again, after a certain period, the preliminary manuscript files and other files related to that can be deleted manually from the database to increase the performance.

2.6 Security Requirement

Each time there is a security violation in the system. For this reason, when the user will log in the system, the user will receive an OTP no in a phone number & have verified this with login the user account, and also Authenticate JWT (JSON WEB TOKEN) Bearer Token validation expires. Otherwise, the user can't book any package.

2.7 Operational & Environmental Requirement

The operational requirement definition process includes the following activities:

- 1) Identify stakeholders who have an interest in our system. So mainly our stakeholders are Users and admins. Users should have Register & Login for their other activities. Admin should have a login to his account for controlling the whole system.
- 2) Establish measures of effectiveness and suitability, so that users can easily access & can use our system.

I tried to make our system's environment more reliable so that users can easily access the system without any delay.

2.8 Hardware requirements

For best performance, the system needs Server Computer with:

- ✦ 1.6GHz or faster processor
- ✦ RAM 1 GB (32 Bit) or 2 GB (64 Bit)
- ✦ 10GB available hard disk space

2.9 Software requirements

Operating system	: Windows XP
IDE	: VisualStudio2019
Frame work	: django
Front end	: HTML, CSS, JQuery
Language	: PYTHON
Back end	: MySQLSERVER

Chapter 3

3. System Analysis

This methodology provides a quantitative and systematic assessment of clearly defined issues and alternatives for a decision that the system will take.

3.1 Use case Diagram

The functional requirements of the system were derived from the following use case diagram. The actors of my system are the police and the normal people. The normal user uses the system to file a complaint against a crime or criminal. The primary use cases of the system are the Home page, search page, file a crime, record criminal data, registration, user login, and a contact form.

✦ User

The people do the activities like login into the system, view his profile, file complaints, and view the status of their complaint.

✦ Administration / Police

The Police can perform the actions like viewing the complaints, take an action against the criminals, generating the reports. The police have the responsibility to detect the criminals and punish them according to the laws.

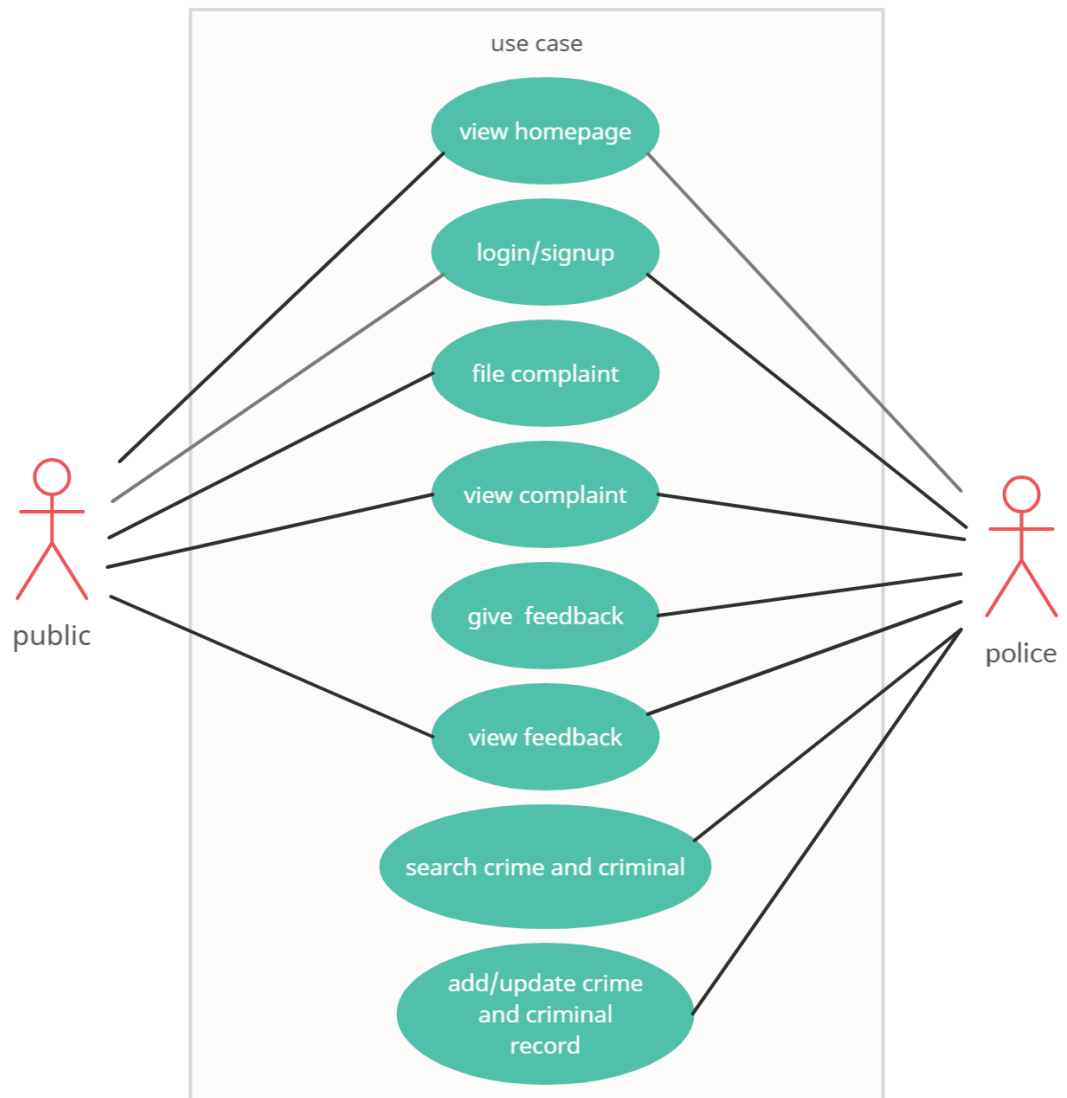


Figure 3.1

3.2 Use Case Description

A use case is a written description of how users will perform tasks on the website. Each use case is represented some steps, beginning with a user's goal and ending when that goal is fulfilled.

3.2.1 Use Case Description for Homepage

Primary Actor	Users(police and User)	
Description	the user can view the homepage.	
Condition	If the use case is successful, the user can get through the modules of the system. Otherwise, the system state will be unchanged.	
Basic Course of Action	Actor action	System response
	<u>Step1.</u> The user can get through the homepage. <u>Step 3.</u> The user can view the other modules as search, file complaint, login, and contact.	<u>Step 2.</u> The system displays the homepage. <u>Step 5.</u> The system can go to other pages after the click of the user.

Table 3.1

3.2.2 Use Case Description for Login

Primary Actor	Users(police and User)	
Description	the actor can login in system.	
Pre-condition	A valid user name and password.	
Postcondition	If the use case is successful, the user information is login in the system.	
Basic Course of Action	Actor action	System response
	<u>Step1.</u>	<u>Step 2.</u>

	<p>The user clicks on login button from the main page <u>Step 3.</u></p> <p>The user provides username and password</p> <p>Once the user provides the requested information, one of the sub-flows is executed. <u>Step 4.</u></p> <p>If the user selected "submit", the Login information subflow is executed.</p>	<p>The system displays the login page</p> <p>The system requests that the user must enter his all valid username and password. <u>Step 5.</u></p> <p>Once the user provides the requested information, the system first validates the Information provided. <u>Step 6.</u></p> <p>The system generates an account</p>
Alternative Course of Action	On cancel	If the user chooses the cancel then the use case ends and the basic flow begins.
	Invalid information	If the user entered the invalid information then the system will generate an error message to again fill the information properly.
	Blank information	If the user left blank the text boxes that are mandatory to be filled by him then the system will generate an error message.
Business Rule	<p>A valid username and password text boxes should not be null and invalid.</p> <p>Valid login requires the user to be registered in the system database.</p>	

Table 3.2

3.2.3 Use Case Description for Search

Primary Actor	Users(police)	
Description	This use case search detail information about crime and criminal	
Pre-condition	The user must be inserted searching information	
Postcondition	If the use case is successful, the user information is searching in the crime and criminal database.	
Basic Course of	Actor action	System response

Action	<u>step1.</u> The actor clicks on searching from main page	<u>Step2.</u> The system displays the searching page and the system requests
	<u>step3.</u> Enter "valid" searching information. <u>step4.</u> If the user selected "submit", then submit crime and criminal information sub-flow is executed.	the user to enter the searching information. <u>Step5.</u> The system searching from the database
Alternative Course of Action	Invalid information	If the user entered the invalid information then the system will generate an error message to again fill the information properly.
	Blank information	If the user left blank the text boxes that are mandatory to be filled by him then the system will generate an error message.

Table 3.3

3.2.4 Use Case Description for Complaint

Primary Actor	User(public)	
Description	This use case complaint detail information about crime and criminal	
Pre-condition	The user must be inserted complaint information	
Postcondition	If the use case is successful, the user information is a complaint in the crime and criminal database.	
Basic Course of Action	Actor action	System response
	<u>step1.</u> The actor clicks on a complaint from the main page <u>step3.</u> Enter "valid" complaint information. <u>step4.</u> If the user selected "submit", the submit crime and criminal information sub-flow is executed.	<u>Step2.</u> The system displays the complaint page and the system requests the user to enter the complaint information. <u>Step5.</u> The system adds to the database

Alternative Course of Action	Invalid information	If the user entered the invalid information then the system will generate an error message to again fill the information properly.
-------------------------------------	---------------------	--

Table 3.4

3.3 Activity Diagram

The Activity diagram includes sequential and parallel activities. This diagram describes the general activity that takes place in the system.

3.3.1 Activity Diagram for Login

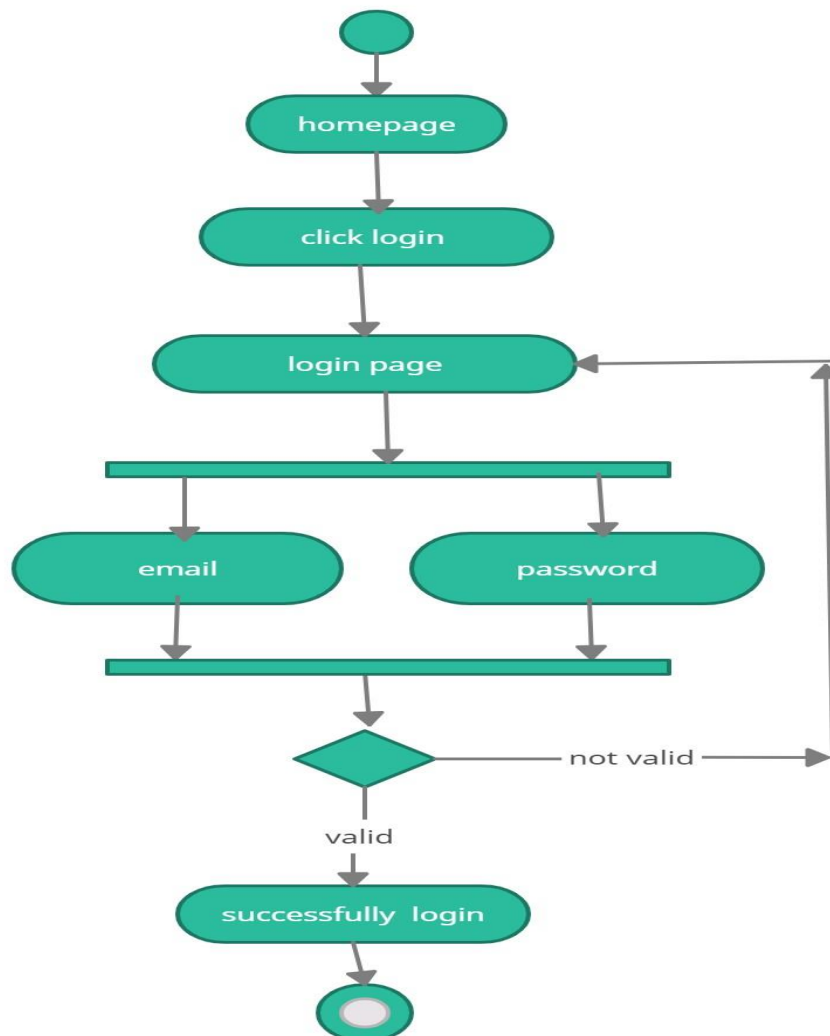


Figure 3.2

3.3.2 Activity Diagram for Search

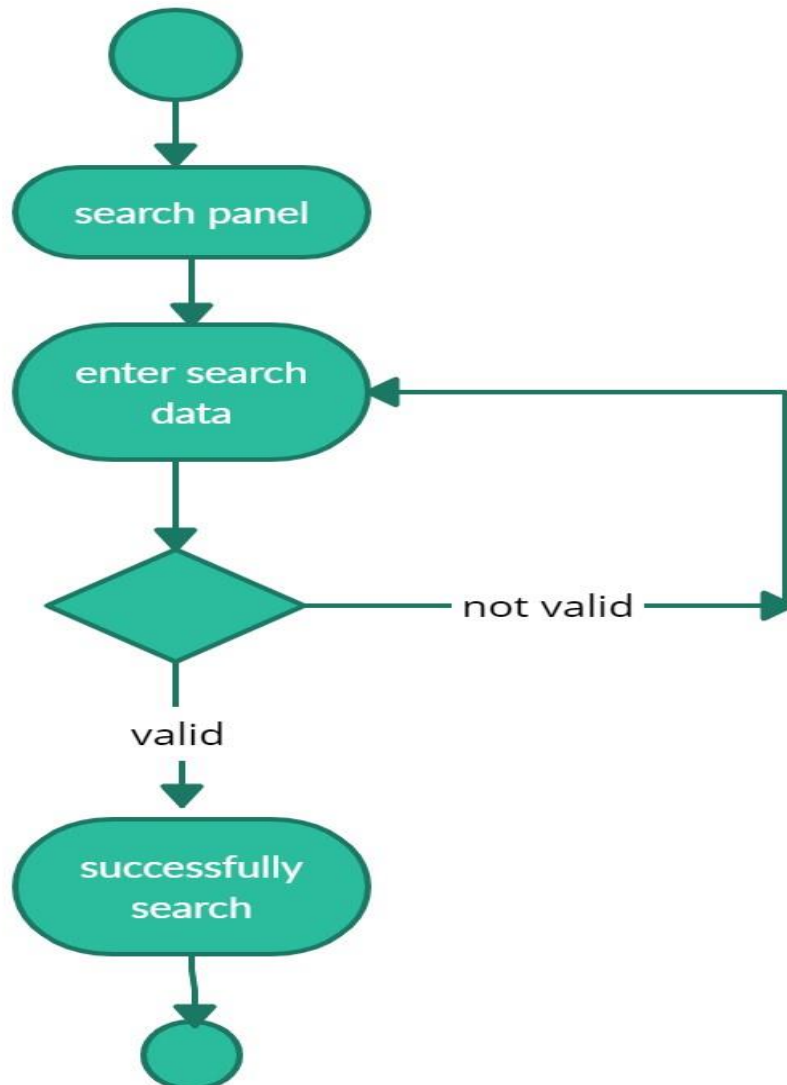


Figure 3.3

3.3.3 Activity Diagram for Complaint

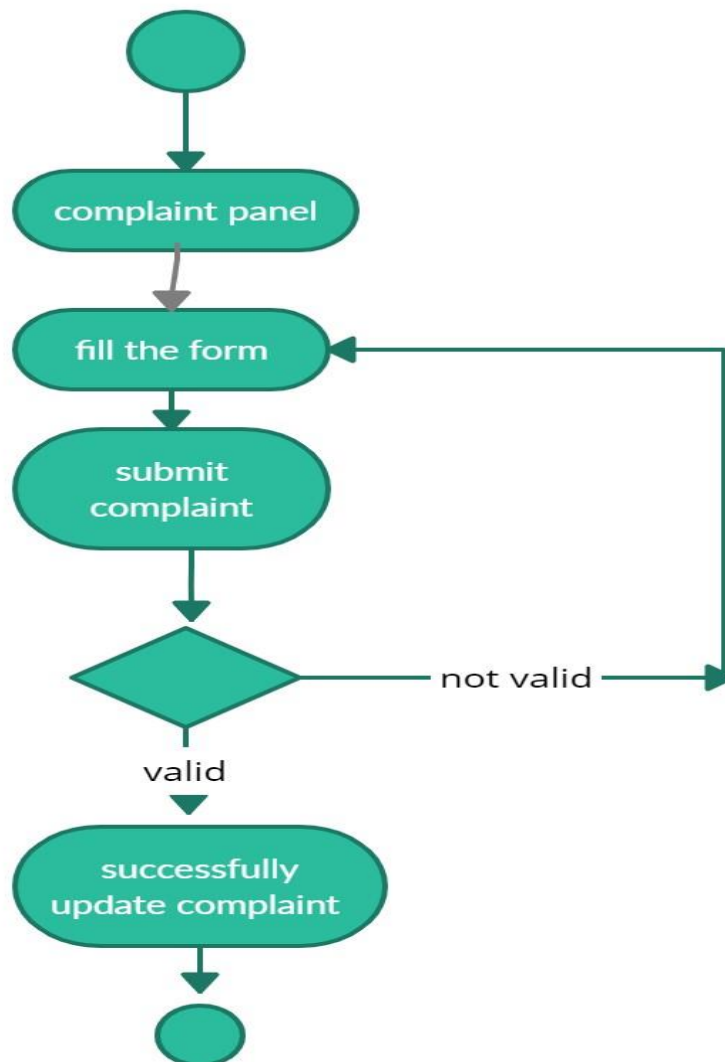


Figure 3.4

Chapter 4

4. System Design Specification

It displays a complete design for a software system. It includes all detailed costs, software tools, and scheduling for the SDLC phase of the system that are going to be implemented.

4.1 Sequence Diagram

It shows object interactions arranged in a time sequence.

4.1.1 Sequence Diagram for Public

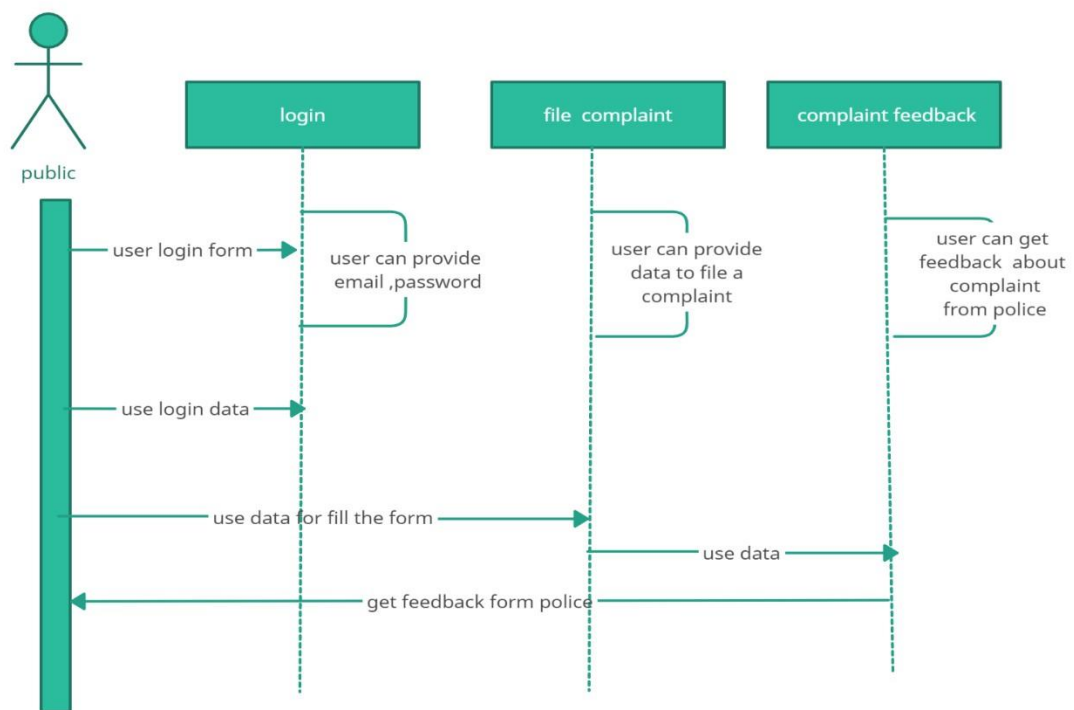


Figure 4.1

4.1.2 Sequence Diagram for Police

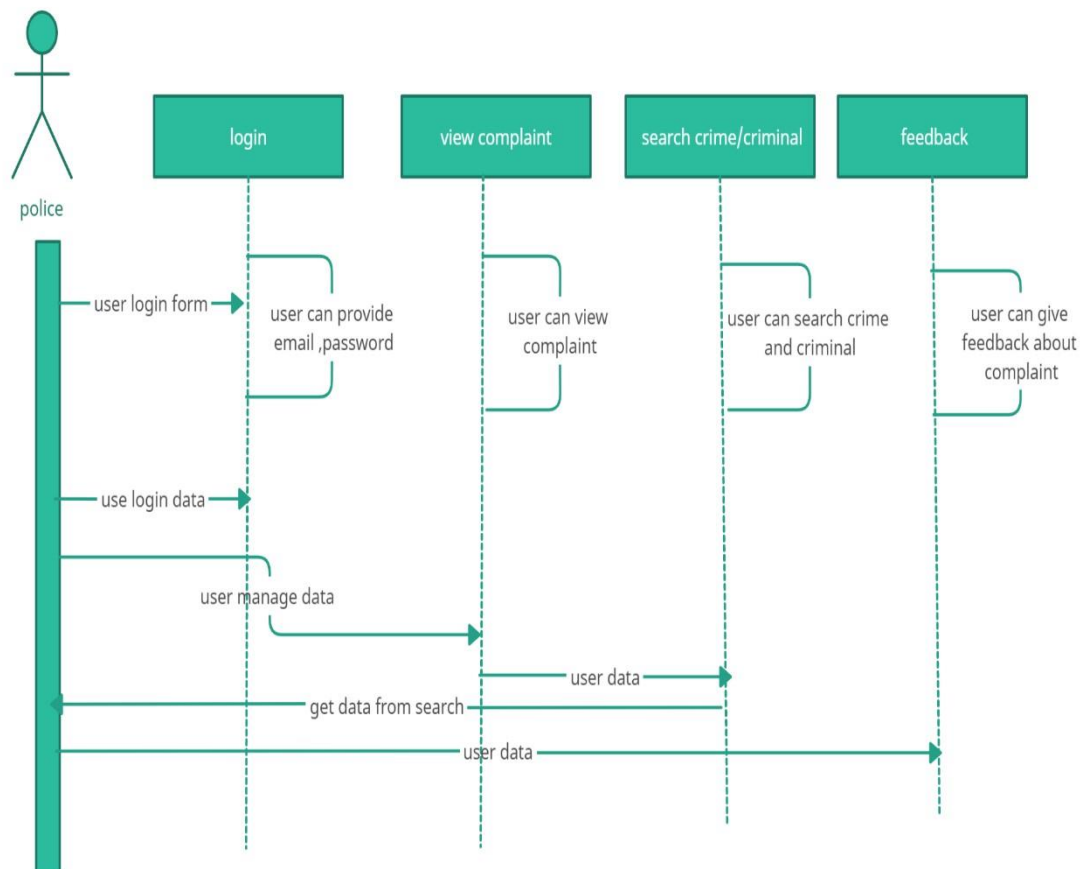


Figure 4.2

4.2 Class Diagram

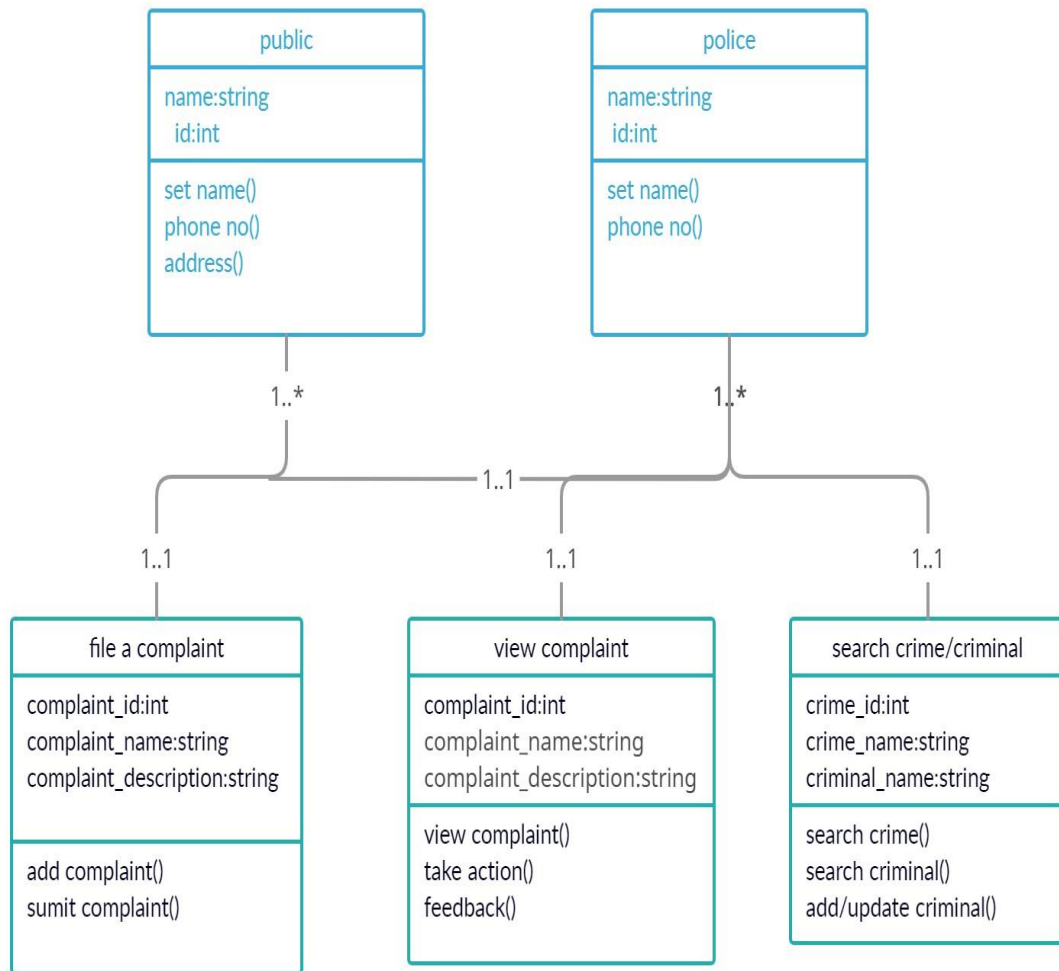


Figure 4.3

4.3 Database Design Diagram

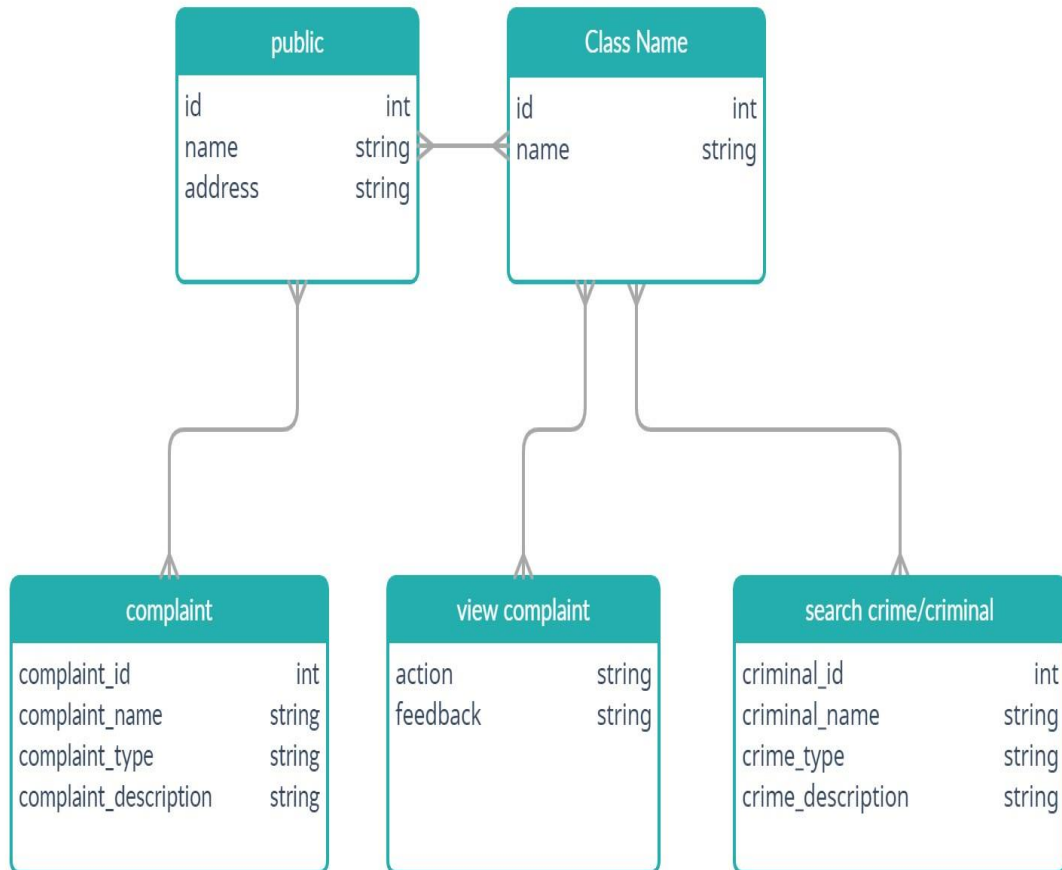


Figure 4.4

4.4 Development Tools & Technology

Development tools describe many forms like linkers, compilers, code editors, GUI designer, assemblers, debugger, performance analysis tools etc. There are certain factors to be considered while selecting the development tool.

4.5 User Interface

The User interface (UI) defines the purpose of human-PC connection and correspondence in a device. It is likewise the route through a client associates with an application or a site. In this system Html, CSS, and JQuery use for the UI.

4.5.1 Html

Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. Html the most widely used language on the web development area. HTML refers to how Web pages are linked together.

4.5.2 jQuery Framework

jQuery is the most mainstream library on the web today. It's a library of JavaScript capacities that make it simple for page engineers to do basic errands - like controlling the site page, reacting to client occasions, getting information from their workers, building impacts and activities, and substantially more. The motivation behind jQuery is to make it a lot simpler to use JavaScript on your site.

4.5.3 CSS Framework

CSS is designed to enable the separation of document content from document presentation, including the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility, enable multiple HTML pages to share formatting by specifying the relevant CSS in a separate .css file and reduce complexity and repetition in the structural content.

4.5.4 Font Awesome or Others

Font Awesome is the most mainstream approach to add textual style symbols to your site. Font Awesome symbols are made utilizing versatile vectors, so you can utilize

excellent symbols that function admirably on any screen size. Font Awesome is a hearty symbol set that contains versatile vector symbols. What's more, incredibly, it is free (symbol sets can be very costly, making this a quite sweet arrangement). Numerous significant kinds of symbols accompany Font Awesome: online media, UI/web-related, and that's just the beginning! Symbols are critical to web projects since they are a visual method to help add importance to components. Font Awesome considers a simple expansion to your WordPress subject, saving important time since you don't have to make and save these designs yourself. All the symbols are remembered for one Font record, so it just takes a solitary HTTP solicitation to stack Font Awesome. This is extraordinary for execution so it merits thinking about Font Awesome as an answer. Designers love the utilization of symbols as fonts given the adaptability of styling accessible. Additionally, utilizing a font will likewise deliver symbols as sharp as your gadget will permit, so there's no compelling reason to stress over making retina illustrations since Font Awesome will give you excellent iconography on each gadget. In the current period of the responsive plan, this is a higher priority than any time in recent memory. CSS is utilized to style the font and can without much of a stretch change the shading, size, drop shadow, or some other customizations of an icon. You get the entirety of the styling advantages of standard content, however now with icons!

4.6 Implementation Tools & Platforms

The Implementation Tool helps user determine if the program was applied according to the program plan. The most basic tools are a source code editor and a compiler, which are used continuously.

Other tools are used more or less depending on the language, development methodology, like a debugger or profiler.

4.6.1 Microsoft Visual Studio 2019

Microsoft Visual Studio is an integrated development environment (IDE) from Microsoft. It is used to develop computer programs, websites, web apps, web services, and mobile apps. Visual Studio 2019 introduces exciting improvements and new features aimed at optimizing developer productivity and team collaboration. One of the goals of the Visual Studio team was to make the upgrade to Visual Studio 2019 as seamless and simple as possible. So you'll find that there are no breaking changes in the format of solution and projects files when you step up and that your existing code should open as expected.

4.6.2 MySQL Community Server 5.5

MySQL Community Edition is a popular open-source database that is supported by an active community of open-source developers and enthusiasts. MySQL is an open-source RDBMS that relies on SQL for processing the data in a database. MySQL provides APIs for the languages like C, C++, JAVA, PHP, and Python. MySQL can run on UNIX, Windows, and Mac OS.

4.6.3 Django Framework

Django is a Python Web framework that encourages software. It takes care of much of the hassle of Web development, so you can focus on writing your app without needing to reinvent the wheel. It's free and open source and extremely fast.

Chapter 5

5. System Testing

System testing is performed on the complete system to check and evaluate the compatibility of the system with the requirements. It can complete in two terms. These are the context of system requirement specification or the functional requirement.

5.1 Testing Features

System testing is black-box testing. There are four types through which the features of my project will be tested and these are performance testing, load testing, stress testing, scalability testing. All the features in a system will not be tested. The features that are going to be tested in my system is giving below-

5.1.1 Features to be tested

- a) Log in (Admin and user)
- b) Add, Delete and Edit criminal data
- c) Search Menu
- d) Complaint section
- e) Response time of the query
- f) System settings

5.1.2 Features not to be tested

- a) Banner
- b) Read description
- c) Visual facts of the website

5.2 Testing Strategies

Performance Testing

Performance testing is carried out all performance of the features in a system that is going to be tested under the functional requirements of the whole system. In this term, it is going to be tested the speed, stability, reliability of my system.

Load Testing

Load testing is performed to check the determination of the behavior of any system under extreme pressure. In simple words, the system is going to be checked that how much load it can take.

Stress testing

In this term, it is going to be checked the robustness of the system.

Scalability testing

It is run to check the performance of the system in terms of the system's capability to scale up or down the numbers of user requests.

The testing strategy of my system is following

- Test Environment: I have set up a good test environment while testing to get a better result.
- Test Case: I have created as many cases can be tested
- Test case data: I have generated all the test case data to be tested precisely
- Execute Test Cases: Then I executed all the cases and the test case data sets
- Defect Report: the defects of the system is pointed
- Log Defects: Defects are fixed in every test case
- Retest: I performed a retest of the system and this time is successful

5.3 Testing Environment

The testing environment is a term in which software or a system can be tested. A system environment includes three things first is hardware, second is software and third is network connectivity.

Process of Test environment setup for my system

System testing is limited with the field of what can be tested and cannot be tested. People who are involved in testing environment setup are-

- Developer
- Testing system

Test Server

Pytest is a test server that is set up for Python. Since my project is done with Python so I find this perfect.

Network

It includes,

- ✦ Internet setup or Wi-Fi setup

Hardware and Software setup

Hardware setup includes PC setup, monitor, Keyboard, and Mouse.

Software setup includes all the software that is needed to test a website. For web testing, there need to set up the browser. For my system, I use a web testing tool call Load Runner.

5.4 Test Cases

Login (user)	Blank or incorrect email or password	Showing a Warning that the correct email or password must be entered. And also show the option of reset the password	Passed
Add crime complaints (police)	All fields must have information provided by police.	The complaint was added successfully.	Passed
Search crime (Admin)	Police can search crime and criminal data.	A search operation was done successfully.	Passed
Registration (User)	The user must have provided all the information required for complete registration.	Registration completed.	Passed

Table 5.1

Chapter 6

6. User Manual

User Manual is a type of document which describes the uses of the complete system. In simple words, it's a term to make the whole system easier to use for the users. It is an important part of system documentation. The user manual describes every step, how can a user use their system easily without any problem. The user manual of my system is following-

6.1 User Manual (type A user-Public)

This user manual is for all those users who use the system only to read the blogs.

Step 1: The user has to open the website first.

Step 2: The user has to open the homepage.

Step 3: The user has to click the log-in page if he wants.

Step 4: The user can Read the system description.

Step 5: The user has to give his password for login.

Step 6: The user has to provide his registered email address.

Step 7: The user has to click the submit button for login.

Step 8: The user can file a complaint against a crime or criminal.

Step 9: The user can see the feedback about the complaint.

6.2 User Manual (type B user-Police)

Step 1: The user has to open the website first.

Step 2: The user has to open the homepage.

Step 3: The user has to click the log-in page if he wants.

Step 4: The user can Read the system description.

Step 5: The user has to give his password for login.

Step 6: The user has to provide his registered email address.

Step 7: The user has to click the submit button for login.

Step 8: The user can view the complaint against crime or criminal.

Step 9: User can search crime and criminal.

Step 10: User can add/update/delete criminal data.

Step 11: The user can give feedback to the public according to the complaint.

Chapter 7

7. Project Summary

This software provides a facility for reporting crimes, complaints, missing persons, show most wanted person details. Additional modules can be easily added when necessary. The software is developed with a modular approach. All modules in the system have been tested with valid data and invalid. Thus the system has fulfilled all the objectives identified and can replace the existing system.

7.1 GitHub Link

<https://github.com/bdrhy/-Crime-Record-and-Complaint-System-Using-Python.git>

7.2 Critical Evolution

Critical Evolution means to break any document analytically. It generally contains two questions that are why is this system and how to use this system. For my system, the analytical evolution is to attract and make the reduces of crime rate in Bangladesh.

The project has been completed successfully with the maximum satisfaction. The system is designed as it was decided in the design phase. The project gives a good idea of developing a full-fledged application satisfying the user requirements.

7.3 Limitations

No matter how hard you try to cope up with the best services with your system there are always some limitations in every application. In my system, there is a slight limitation of the offline reply of the user query. Soon it will be updated online.

7.5 Future Scope

In the future, we can use Image recognition instead of a heterogeneous database moreover High speed, accuracy, and non-redundant data are the main advantages of the proposed system. Now the proposed system is based on desktop application but in the future, if we need to convert it to the mobile app then we need to change the front end only.

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