

# E-FIR System



Developed by

Malik Abdul Rehman

4292-FBAS/BSCS/F20

(BS Computer Science)

Supervised By

Dr. Qamar Abbas

Professor

DEPARTMENT OF COMPUTER SCIENCE  
FACULTY OF COMPUTING & IT  
INTERNATIONAL ISLAMIC UNIVERSITY ISLAMABAD

## Final Approval

Date: \_\_\_\_\_

It is certified that we have read the project report for " E-FIR System " submitted by Malik Abdul Rehman (4292-FBAS/BSCS/F20) that we believe this project meets the requirements for the bachelor's degree in Computer Science set by the Department of Computer Science at International Islamic University, Islamabad.

### COMMITTEE

#### 1-External Examiner:

Dr. Ahsan Tanveer  
DCS, FBAS, IIUI

---

#### 2-Internal Examiner:

Dr. Jibran Mir  
DCS, FBAS, IIUI

---

#### 3-Supervisor:

Dr. Qamar Abbas  
DCS, FBAS, IIUI

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## Abstract

The E-FIR System represents a significant modernization in law enforcement, transitioning from traditional paper-based methods to a streamlined digital framework for incident reporting and case management. This project aims to digitalize and enhance the efficiency, accuracy, and accessibility of law enforcement procedures. By offering a centralized repository for case details and expediting the reporting process, it will make easier for citizens to report incidents immediately and receive real-time updates, thereby reducing reporting timelines and data inconsistencies.

The platform provides citizens with a user-friendly interface for registering, reporting incidents, and tracking case progress. It includes features such as a secure messaging system, language accessibility, and a comprehensive guide to common legal codes. For law enforcement administrators, I have created system for efficient case management, oversight, and performance tracking. The project's scope is focused on automating FIR systems at police stations, including certain processes like character certification and in-person verification for serious offenses.

By enabling citizens to engage with law enforcement from their homes and facilitating seamless communication, my goal is to improve the overall efficiency and transparency of the FIR process. Ultimately, the E-FIR System will benefit both citizens and law enforcement agencies by providing a user-friendly, efficient, and trusted platform for incident reporting and case management.

## Project in Brief

Project Title:	E-FIR System
Undertaken By:	Malik Abdul Rehman 4292-FBAS/BSCS/F20
Supervised By:	Dr. Qamar Abbas Professor Department of Computer Science, International Islamic University Islamabad
Date Started:	23-11-2023
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Tools, Technologies and language Used:	HTML, CSS (Bootstrap CSS), JavaScript, ReactJS, NodeJS, ExpressJS, MongoDB, Visual Studio Code

## ACKNOWLEDGEMENT

My heartfelt gratitude to Allah Almighty, Who Has provided me with whatever I've required to fulfill this project. Throughout my degree, He was concerned about anything that would have delayed my progress, and He remained by me even through my lowest days.

My parents are especially deserving of recognition for their steadfast support, prayers, and love, which have helped me grow into the people I am today. Who build the groundwork for my education by giving it their all? I owe them an eternal debt of gratitude for going above and beyond, even to the point of sacrificing crucial things, to ensure that I achieve my objectives.

I'd want to express my gratitude to my excellent teachers for all of their aid and for enabling me to think and cultivate.

Malik Abdul Rehman  
4292-FBAS/BSCS/F20

## DECLARATION

I hereby declare that this Software, in its entirety or in part, has not been copied from any source. It gives me great pleasure to announce that I built this Website totally based on my efforts made under the cautious guidance of my instructors and supervisor.

This report's work has not been submitted in support of any other degree or certification at this or any other institution or institute of learning. I additionally certify that this software, along with any accompanying documentation, reports, and records, is being submitted as part of the requirements for a Bachelor's degree in Computer Science.

Malik Abdul Rehman  
4292-FBAS/BSCS/F20

## **DEDICATION**

I dedicate this work to my parents and other family members who have always been very supportive throughout this endeavor, as well as throughout my entire degree, and to my respected project supervisor whose guidance made me enable to complete this project with my full effort.

Malik Abdul Rehman  
4292-FBAS/BSCS/F20

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# **Chapter 1**

## **Introduction**

## 1.1 Introduction

In the ever-evolving landscape of law enforcement, the emergence of the E-FIR System represents a transformative leap towards modernization in incident reporting and case management. My goal with this project is to move away from the traditional paper-based methods and introduce a digital framework that streamlines the reporting process, expedites the initiation of investigations, and creates a centralized repository for crucial case details. This paradigm shift is designed to enhance the speed and accuracy of information processing while fostering a more accessible and transparent avenue for citizens to engage with law enforcement.

The traditional method of handling FIRs involves several inefficiencies and challenges. Paper-based reporting is prone to delays, errors, and data loss, which can hinder the swift initiation of investigations. Additionally, citizens often face difficulties in reporting incidents promptly, especially in remote areas where access to police stations is limited. The E-FIR System aims to address these issues by providing a user-friendly platform that allows citizens to report incidents from the comfort of their homes, using their smartphones, tablets, or PCs.

With the E-FIR System, my system will make reporting easier and faster for citizens, while ensuring that information is handled quickly and accurately. The platform will feature a secure registration process for citizens, enabling them to create accounts and access a personalized dashboard. From this dashboard, they can report incidents, track the status of their filings, and communicate with law enforcement officers through a secure messaging system. This system will help bridge the communication gap and build trust between citizens and the police department.

For law enforcement authorities, the E-FIR System offers a centralized platform for efficient case management, real-time oversight, and data analysis. Admin of Police Stations will be able to change the status of FIRs, receive email notifications for new reports, and track the number of cases solved. This will not only streamline their workflow but also enhance transparency and accountability within the police force.

However, the scope of the project is carefully defined to focus on the most critical aspects of FIR automation. Certain processes, such as character certification and in-person verification for serious offenses, are intentionally excluded to maintain clarity and relevance. The project also places a strong emphasis on accessibility. Additionally, the system will be mobile-responsive, ensuring that it can be accessed seamlessly from various devices.

Ultimately, the E-FIR System aims to revolutionize the FIR process by providing a user-friendly, efficient, and trusted platform. By enabling citizens to engage with law enforcement more effectively and facilitating seamless communication, this project will enhance the overall efficiency and transparency of the FIR process, benefiting both citizens and law enforcement agencies.

## 1.2 Need of the Project

The need of this project arises due to several critical challenges and limitations in the current law enforcement reporting and case management processes that are as follows:

- 1) Inefficiency: The manual system causes delays in incident reporting and investigation initiation.
- 2) Data Accuracy and Integrity: In current system there are huge chances of human errors and case records tampering.
- 3) No Accessibility for Citizens: Citizens have to wait for hours to report incidents which is very annoying.
- 4) Inconvenience at Police Stations: There is no mechanism to inform victims about the progress of the case.
- 5) Limited Access: No such mechanism for storing records for long time.

However, by analyzing all these problems, we evaluated the solution and this is the actual need of our project:

- 1) The E-FIR System reduces delays in incident reporting and investigation initiation.
- 2) It minimizes human errors and ensures reliable, tamper-proof digital records.
- 3) Citizens can report incidents conveniently from anywhere via their devices.
- 4) My system will provide real-time updates and secure messaging enhance transparency and trust.

- 5) This system is designed to easily scale and adapt to future technological advancements and growing data needs.

## 1.3 Scope of Project

The scope of the project is to revolutionize the FIR process by providing a comprehensive, user-friendly, and efficient digital platform that benefits both citizens and law enforcement agencies. The scope of my project is as follows:

### 1. Citizen Management:

- Citizen Registration: Allow citizens to create accounts on my website.
- Citizen Login/Logout: Implement secure login and logout functionality.

### 2. Citizen Dashboard:

- Profile Dashboard: A user-friendly interface allows citizens to manage their complaints.
- Past Records: This feature will show all the past complaints that are completed or pending.

### 3. Report an Incident:

- Form based FIR: A form typed FIR allows citizens to report incidents conveniently.
- Secure Records: It will store the information of FIRs and avoid misplacing of data.

### 4. My Applications:

- Print Complaints: Citizens can view and print their previously filed FIRs/complaints.
- Real-time updates: And also track the status of their complaints.

### 5. Verified Certificates:

- Character Certificates: It will allow citizens to generate character certificates verified by concerned police station.
- Vehicle Verification: It will also verify that your vehicle is used in crimes or not.

## 6. Citizen Manual Guide:

- Guiding Citizens: Provide a comprehensive guide to common issues and necessary documents required for processing of complaints.
- Multiple Languages: Information will be in English language or in Urdu as well.

## 7. Police Stations' Information:

- Police Stations' Judiciary: It will contain information about all police stations of Islamabad like SHOs name, contact number etc.
- Exact Locations: Also provides you the exact locations of each and every police stations.

## 8. Messaging System:

- Direct Communications: Secure communication between citizens and police officers.
- Meeting Notifications: Citizens can get meeting message from their investigating officer.

Our project provides a comprehensive solution for both citizens and admin involved in the incident reporting process. Ensure that my website is user-friendly, responsive, and implements security best practices, especially when handling citizens data and complaints.

### **1.3.1 Problem Definition**

The current manual, paper-based incident reporting and case management system in law enforcement faces significant inefficiencies and challenges. Delays in reporting and investigation initiation, coupled with data inconsistencies and errors, hinder effective case management. Citizens, especially in remote areas, struggle with limited access to reporting mechanisms, leading to underreporting of crimes. Additionally, paper records are prone to damage, loss, and tampering, compromising data integrity. The lack of transparency and real-time updates erodes public trust. These issues underscore the urgent need for a digitized, streamlined E-FIR system to enhance efficiency, accuracy, and accessibility.

Key Problems:

**1. Delayed Reporting and Investigation:**

The traditional system involves lengthy paperwork and manual processing, leading to delays in incident reporting and the initiation of investigations. This can hinder timely law enforcement responses and the swift administration of justice.

**2. Data Inconsistencies and Errors:**

Manual entry and handling of information are prone to human errors, data inconsistencies, and inaccuracies. This can compromise the integrity of case details and impede effective case management and resolution.

**3. Limited Accessibility for Citizens:**

Citizens often face difficulties in reporting incidents promptly, particularly in remote or underserved areas. The requirement to physically visit a police station can be a significant barrier, resulting in underreporting of crimes and reduced citizen engagement.

**4. Inefficient Record Management:**

Paper-based records are cumbersome to manage, store, and retrieve. They are vulnerable to physical damage, loss, and tampering, leading to potential loss of critical information and compromising case integrity.

**5. Lack of Transparency and Real-time Updates:**

The current system lacks mechanisms for providing citizens with real-time updates on the status of their reports. This lack of transparency can erode public trust in law enforcement and hinder effective communication between citizens and police officers.

**6. Resource-Intensive Processes:**

Managing and maintaining paper records requires significant administrative resources and physical storage space. This diverts valuable law enforcement resources away from core investigative and

community policing activities.

#### 7. Absence of a Centralized Repository:

The lack of a centralized digital repository for case details makes it challenging to collate, analyze, and access information efficiently. This fragmentation of data hampers effective decision-making and case coordination.

### **1.3.2 Solution**

The goal of my project is to resolve the inefficiencies of the current paper-based system by offering a comprehensive digital solution. It enables instant online reporting, reducing delays and ensuring timely investigations. The system standardizes data entry and secure storage, enhancing accuracy and integrity while providing real-time updates to build public trust. Accessible via various devices, it allows citizens, especially in remote areas, to report incidents easily. Digital records streamline management and reduce administrative burdens, while a centralized repository improves data access and coordination. Overall, the E-FIR System enhances efficiency, accuracy, accessibility, and transparency in law enforcement processes.

### **1.4 Objectives**

Objectives of my website is as follows:

- User Authentication and Personalization:**

Implement robust user authentication mechanisms to ensure secure access to the platform, and provide personalized dashboards for citizens and administrators to enhance user experience and engagement.

- Enhance Accessibility:**

Provide citizens with a user-friendly, online platform accessible via smartphones, tablets, and PCs, enabling easy and convenient incident reporting from anywhere, especially benefiting those in remote

or underserved areas.

- **Improve Data Accuracy and Integrity:**

Ensure accurate and consistent data entry through standardized digital forms, reducing human errors and maintaining the integrity of case information with secure, tamper-proof storage.

- **Facilitate Real-time Updates and Transparency:**

Offer real-time status updates and a secure messaging system to enhance transparency, build trust between citizens and law enforcement, and improve communication.

- **Optimize Resource Utilization:**

Centralize records in a digital format to reduce administrative burdens, minimize physical storage needs, and allow law enforcement personnel to focus more on investigative and community policing activities.

- **Centralize Case Management:**

Provide law enforcement administrators with a centralized platform for efficient case management, oversight, and performance tracking, including the ability to update case statuses and receive notifications.

- **Admin Control:**

Equip law enforcement admins with comprehensive control features, allowing them to manage user accounts, monitor system usage, and enforce policies to maintain system integrity and efficiency.

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## **Chapter 2**

### **Basic Concepts / Existing System**

## 2.1 Previous / Existing System

There are several existing systems present that utilize a database for record-keeping but lacks user sign-up options. Citizens must physically visit police stations to report incidents, leading to delays and inconvenience. Data entry is manual, increasing the risk of errors and inconsistencies. Without online accessibility, citizens, particularly those in remote areas, face barriers to reporting crimes promptly. The absence of user authentication features limits access to case details, hindering transparency and citizen engagement. Resource-intensive manual processes strain administrative resources, impeding efficient case management. The system's limitations highlight the urgent need for a digital solution with user sign-up functionalities.

## 2.2 Problems in Existing System

The existing incident reporting and case management system of Punjab Police and KPK Police, despite having a database, suffers from significant drawbacks due to the lack of user sign-up options. This absence increases the risk of fake FIRs, reduces accountability, and makes follow-ups difficult. Citizens face inconvenience and delays as they must visit police stations physically to report incidents. Manual data entry through handwritten applications is prone to errors and inconsistencies, compromising case integrity. Additionally, the system lacks real-time updates, frustrating citizens and reducing transparency. The resource-intensive nature of manual processes diverts valuable law enforcement resources from essential tasks, highlighting the urgent need for a more robust digital solution with user authentication.

### 2.2.1 References for Previous Existing Website

- [Punjabpolice.gov.pk:](http://Punjabpolice.gov.pk)

The following website does not have citizens authentication method.

- [Kppolice.gov.pk](http://Kppolice.gov.pk)

This website also doesn't have any citizens sign up option and also takes a lot of time to load.

Complaint management system face various challenges that can impact user experience, customer satisfaction, and overall success of the welfare work done by police. Some of the common problems

include:

**1. Increased Risk of Fake Reports:**

Without user authentication, there is a higher likelihood of fake FIRs being submitted, undermining the credibility of the system.

**2. Limited Accountability:**

Lack of sign-up mechanisms means there is no way to trace the identity of the person filing the report, reducing accountability and making it difficult to follow up on cases.

**3. Inconvenience for Citizens:**

Poor mobile optimization can result in a subpar experience for users accessing the website on smartphones or tablets. Mobile users may encounter navigation issues, slow loading times, or distorted layouts.

**4. Manual Data Entry Errors:**

The reliance on manual data entry increases the chances of errors and inconsistencies, affecting the integrity of case information.

**5. No Real-Time Updates:**

Citizens cannot track the status of their reports in real-time, leading to frustration and a lack of transparency.

## 6. Resource-Intensive Processes:

The absence of digital automation leads to resource-intensive administrative processes, diverting valuable law enforcement resources from critical tasks.

## 7. Poor User Interface (UI) and User Experience (UX):

Confusing designs and cluttered interfaces can make it difficult for users to find the information they need.

## 8. Optimizing Issues:

Slow loading times or a lack of intuitive design can drive citizens away.

## 9. Reviews and Feedback Management:

The absence of a feedback system can affect the investigating officer's credibility. Positive reviews should be addressed in Annual Confidential Report of investigating officers.

## **2.3 Drawbacks**

By analyzing all above-mentioned problems, I evaluated the solution and this the actual need of replacement of existing system.

- 1) I Implemented secure sign-up options for citizens to ensure accountability and reduce the risk of fake FIRs with three step verification.
- 2) Allows citizens to report incidents online, eliminating the need to visit police stations and providing convenience, especially for those in remote areas.
- 3) Provides citizens with real-time status updates on their reports, enhancing transparency and improving communication between citizens and law enforcement.

- 4) Centralizes all case details in a digital repository, facilitating efficient data access, analysis, and decision-making for law enforcement officials.
- 5) Centralizes all case details in a digital repository, facilitating efficient data access, analysis, and decision-making for law enforcement officials.
- 6) Centralizes all case details in a digital repository, facilitating efficient data access, analysis, and decision-making for law enforcement officials.
- 7) My UI is designed in better and attractive contrast to existing system of Punjab Police and KPK Police

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## **Chapter 3**

### *Problem/System Analysis*

The E-FIR system focuses on addressing the inefficiencies and challenges of traditional paper-based incident reporting and case management. The current manual processes lead to delays, data inaccuracies, and limited accessibility for citizens, particularly in remote areas. The E-FIR system aims to mitigate these issues by providing a digital platform that allows for instant online reporting, reducing delays and ensuring timely investigations. It ensures accurate data entry, secure storage, and real-time updates, enhancing transparency and public trust. By centralizing records and streamlining management, the system optimizes resource utilization and improves overall efficiency in law enforcement processes.

### **3.1 Features of Project**

Following are the main features of my website:

- User Authentication:**

The system ensures secure login processes for both citizens and police officers, protecting sensitive data. Authentication mechanisms include password protection and potential two-factor authentication to safeguard user information.

- Online FIR Registration:**

Citizens can conveniently file FIRs online from any location, eliminating the need for physical visits to police stations. This feature significantly reduces barriers to reporting incidents, especially in remote or rural areas.

- Role-Based Access Control:**

Different access levels are provided for police officers, administrators, and citizens, ensuring that each user can only access the information and functionalities relevant to their role. This maintains data privacy and operational integrity. For example, police officers might have access to sensitive law enforcement data and investigative tools, while administrators can manage system settings and user permissions. Citizens, on the other hand, would only have access to public information and general services. This careful delineation of access helps to maintain data privacy, operational integrity etc.

- **Real-Time Updates:**

Users receive instant updates on FIR status and progress, which are accessible through their accounts. This transparency helps build trust in the system and keeps citizens informed about their cases.

- **FIR Management:**

Police officers can view, edit, and update FIR details, streamlining case management and follow-up processes. This feature allows for efficient handling and resolution of cases, improving overall police response times.

- **Search and Filter:**

Advanced search and filtering options enable users to easily locate and track specific FIRs based on various criteria such as date, type of incident, or status. This makes managing large volumes of data more manageable.

- **Document Upload:**

Users can attach documents, images, and videos related to their FIRs, providing comprehensive evidence and information for the case. This feature ensures that all relevant information is centralized and easily accessible.

- **Notification System:**

Automated email and SMS notifications keep users informed about important updates and changes to their FIR status. This continuous communication loop enhances user engagement and satisfaction.

- **Report Generation:**

The system can generate detailed reports for analysis and record-keeping purposes. These reports aid in data-driven decision-making and help in evaluating the performance of the police department.

- **User Feedback and Rating:**

Citizens can provide feedback and rate the services received, helping to identify areas for

improvement. This feature fosters a culture of continuous improvement and accountability within the police force.

- **Messaging System:**

Citizens can communicate with admin of police station through real time messaging app built in my system. This feature will help the police station to arrange meeting with citizen on specific time and avoid unnecessary crowd at police station and citizens can get information about their case even at their home through this messaging services.

- **Admin Dashboard:**

An intuitive dashboard for administrators to monitor system performance, user activity, and manage system settings. The dashboard provides a comprehensive overview and control over the system.

- **Secure Data Storage:**

Encrypted storage of all FIR-related data ensures confidentiality and prevents unauthorized access. Secure storage safeguards sensitive information and maintains user trust.

- **Responsive Design:**

The system is accessible on various devices, including desktops, tablets, and smartphones, ensuring ease of use for all users. A responsive design guarantees a seamless user experience across different platforms.

## **3.2 Overall Requirements**

### **3.2.1 Functional Requirements**

Here's a detailed list of functional requirements for the "E-FIR System" website based on the specified functionalities:

- **User Registration and Authentication:**

- The system must allow citizens to create an account with a unique username and password.
- The system must allow police officers and administrators to have secure login credentials.

- The system must authenticate users upon login to ensure access is granted to authorized personnel only.
- 
- **FIR Filing:**
    - The system must enable citizens to file a new FIR online, providing necessary details such as incident description, date, location, and any witnesses.
    - The system must allow the upload of supporting documents, images, or videos related to the FIR.
- 
- **FIR Management:**
    - The system must allow police officers to view all FIRs filed by citizens.
    - The system must enable officers to update the status of FIRs (e.g., pending, under investigation, resolved).
    - The system must allow officers to edit and update FIR details as necessary.
- 
- **Search and Filter FIRs:**
    - The system must provide search functionality to find specific FIRs based on criteria like FIR number, date, location, and keywords.
    - The system must provide filtering options to narrow down FIRs based on status, type of incident, and other relevant parameters.
- 
- **Notifications and Alerts:**
    - The system must send automated email and SMS notifications to citizens upon successful FIR submission.
    - The system must notify citizens about any updates or changes in the status of their FIR.
- 
- **Report Generation:**
    - The system must generate detailed reports on FIRs for analysis and record-keeping.
    - Reports must include information such as the number of FIRs filed, types of incidents,

resolution times, and other relevant statistics.

- **Role-Based Access Control:**

- The system must restrict access to certain features based on user roles (citizen, police officer, administrator).
- Citizens should only have access to their own FIRs and related updates.
- Police officers should have access to FIRs relevant to their jurisdiction and responsibilities.
- Administrators should have access to manage user roles, system settings, and overall system monitoring.

- **User Feedback and Rating:**

- The system must allow citizens to provide feedback and rate the service received after filing an FIR.
- Feedback should be recorded and made available for analysis to improve system performance.

- **Admin Dashboard:**

- The system must provide an admin dashboard for monitoring system performance, user activity, and managing system settings.
- Administrators should have access to analytical tools and reports to oversee the system effectively.

### **3.2.2 Non-Functional Requirements**

Following are the non-functional requirements of my website:

- **Performance:**

The website will load quickly, with minimal latency, to provide a seamless user experience.

- **Reliability:**

The website will be highly reliable, with minimal downtime for maintenance or unexpected issues.

- **Scalability:**

The website will be able to scale horizontally and vertically to accommodate increased traffic and data volume.

- **Usability:**

The website will have a user-friendly interface, with intuitive navigation and clear information presentation.

- **Compatibility:**

The website will be compatible with a wide range of devices and browsers, ensuring a consistent experience for all users. It will also be compatible with different screen sizes and resolutions, supporting responsive design principles.

- **Maintainability:**

The website will be easy to maintain and update, with clear documentation and modular code. Changes to the system will be easy to implement without causing disruptions to the overall functionality. The website will feature clear and comprehensive documentation, which will guide developers and administrators through maintenance procedures and system updates. The codebase will be modular, meaning it is organized into distinct, manageable components that can be independently updated or replaced.

### **3.3 Use Cases**

- **Authentication**

- a. User Registration
- b. User Login
- c. Forgot Password

- **FIR Management**

- a. Register FIR
- b. View FIR
- c. Update FIR Status
- d. Edit FIR Details
- e. Delete FIR

- **Certificate Management**

- a. Register Certificate
- b. View Certificate
- c. Update Certificate Status
- d. Edit Certificate Details
- e. Delete Certificate

- **Vehicle Verification Management**

- a. Register Request
- b. View Request
- c. Update Request Status
- d. Edit Request Details
- e. Delete Request

- **Search and Filter**

- a. Search FIR
- b. Filter FIR

- **Email Notifications and Alerts**

- a. Receive FIR Status Notification
- b. Send Meeting Notification

- **Report Generation**

- a. Generate Certificate and FIR Reports in PDF Formats
- b. View Certificate and FIR Reports

- **User Rating**

- a. Give Rating
- b. View Rating

### **3.4 Use Case Diagram**

This Fig 3.1 use case diagram for an E-FIR System website visually represents the system's functional requirements by depicting the interactions between citizens (actors) and administrators (use cases). It offers a comprehensive overview of how citizens submit FIRs and track their status, while administrators manage and process these reports. The diagram clarifies the distinct functionalities available to each user type, such as filing complaints, updating case statuses, and generating reports. By illustrating these interactions, the diagram helps in understanding the system's workflow and user roles, highlighting how the different components work together to streamline the FIR submission and management process. This visual representation also aids in identifying potential areas for system enhancement and ensures that all functional requirements are effectively addressed.

Additionally, Fig 3.1 highlights the dynamic nature of interactions within the E-FIR System, including various use cases such as case assignment, status updates, and notifications. For example, citizens can interact with the system to submit initial FIR reports and track their progress, while administrators can review, validate, and manage these reports, as well as generate statistical summaries and handle administrative tasks. The diagram also depicts how feedback and queries are handled, ensuring transparent communication between citizens and the administration. This visualization supports a clear understanding of user responsibilities and system processes, facilitating efficient design, development, and maintenance of the E-FIR System.

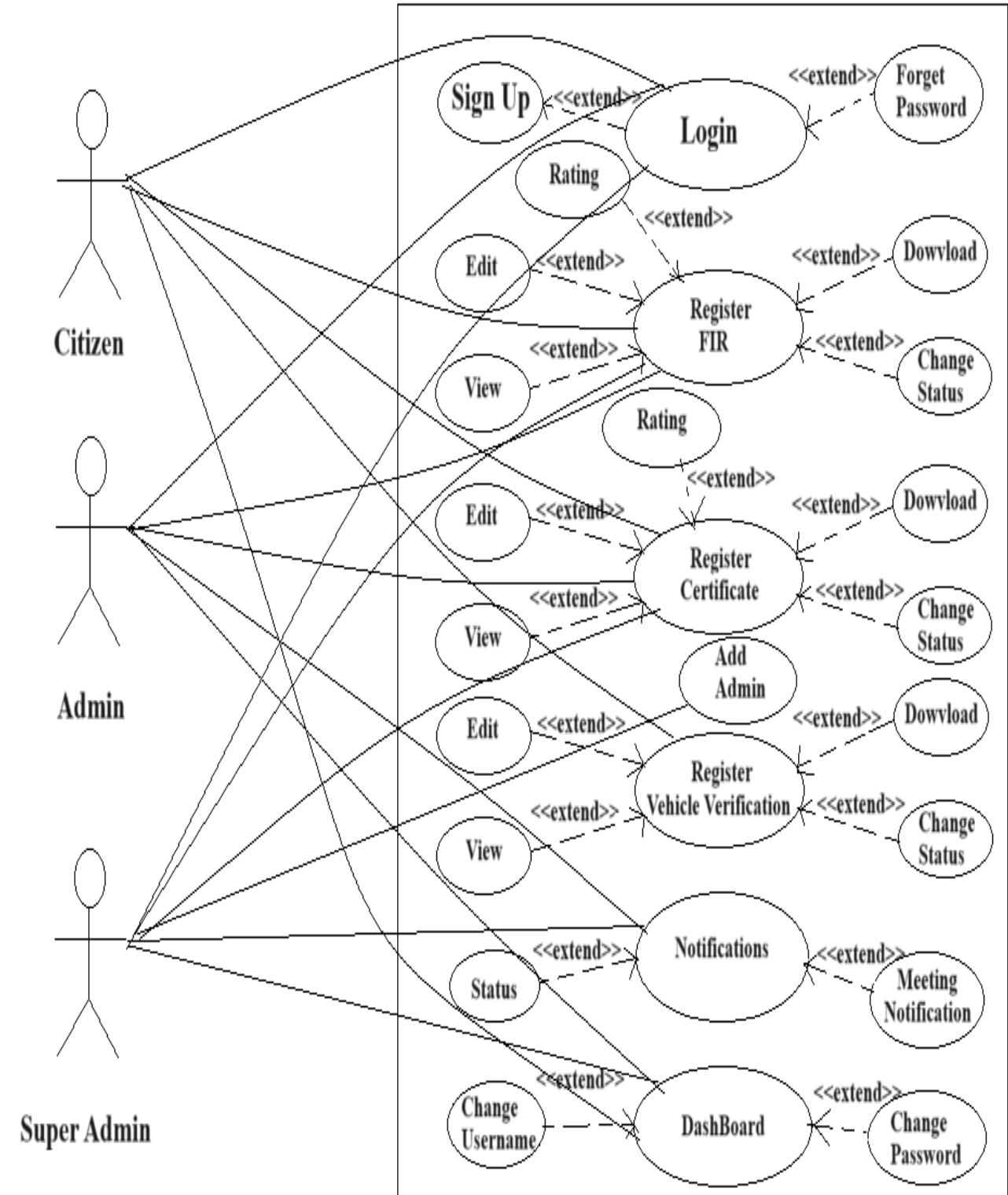


Fig 3.1 Use Case Diagram for E-FIR System

## 3.5 Fully Dressed Use Cases

Here now we will write the all-use case in fully dresses form means we will describe all use cases in detail:

### 3.5.1 Login

This Table 3.5.1 illustrates the detail procedure of Login process

USECASE NAME	Login
SCOPE	Allow the Citizen and Admin to login into the website with email and password
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For login, Citizen, Super admin and admin must have their accounts and they should have their name and passwords
POSTCONDITIONS	Citizen, Super Admin or Admin will log in to their profiles. Citizen can write FIRs; Admin can manage FIR and Super Admin will manage website
MAIN SUCCESS SCENARIO	Citizen, Super Admin and Admin can add credentials for login. If they enter correct credentials then citizen will be successfully logged in and can register FIR, Admin can manage FIRs data and Super Admin manage other website data
GOAL	The goal is to ensure authenticity for website and user data

Table 3.5.1 Use Case for Login

### 3.5.2 Signup

This Table 3.5.2 illustrates the detail procedure of Signup process

USECASE NAME	Signup
SCOPE	Allow the citizen to create account and then allow them to login into the website with email and password
PRIMARY ACTORS	Citizen
PRECONDITIONS	For signup, citizen must have a valid CNIC, email account and mobile number for verification
POSTCONDITIONS	Citizen will be able to create account and will be able to logged in to their profiles by providing the valid OTP.
MAIN SUCCESS SCENARIO	Citizens will sign up by providing username, valid CNIC, email id, mobile number, profile picture and set the password which will allow them to login into the website. Citizen will be able to write FIRs, Admin will be able to that FIR data
GOAL	To allow new citizens to create an account and gain access to the E-FIR system

Table 3.5.2 Use Case for Signup

### 3.5.3 Register FIR

This Table 3.5.3 illustrates the detail procedure of Register FIR process

USECASE NAME	Register FIR
SCOPE	Allow the citizen to create FIR by writing details of the incident
PRIMARY ACTORS	Citizen
PRECONDITIONS	For registering FIR, the citizen must be authenticated and log in to access this feature
POSTCONDITIONS	The FIR will successfully submit and saved in the system and the citizens receive a confirmation of the FIR submission on their email account.
MAIN SUCCESS SCENARIO	When the citizen fills out the required details in the FIR form and submits the FIR form. Then system validates the entered information and saves the FIR in the database. the citizens receive a confirmation of the FIR submission on their email account. Now FIR is available for review and processing by the relevant authorities.
GOAL	To allow citizens to submit an FIR electronically through the E-FIR system, ensuring it is recorded and processed by the authorities.

Table 3.5.3 Use Case for Register FIR

### 3.5.4 View FIR

This Table 3.5.4 illustrates the detail procedure of View FIR process

USECASE NAME	View FIR
SCOPE	Allow the citizen, admin, super admin to View FIR details
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For viewing FIR, the citizen, admin, super admin must be authenticated and log in to access this feature and that particular FIR must be submitted
POSTCONDITIONS	The citizen, admin, super admin successfully views the details of the selected FIR that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects an FIR to view. Then system retrieves the FIR details from the database and finally it will display the FIR details to them.
GOAL	To allow citizen, admin, super admin to view the details of an FIR in the E-FIR system, ensuring they can access the necessary information like status, pdf file etc.

Table 3.5.4 Use Case for View FIR

### 3.5.5 Update FIR Status

This Table 3.5.5 illustrates the detail procedure of Update FIR Status process

USECASE NAME	Update FIR Status
SCOPE	Allow the admin, super admin to Update FIR status
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	For updating FIR status admin or super admin must be authenticated and log in to access this feature and that particular FIR must be submitted
POSTCONDITIONS	The admin, or super admin successfully updates the status of the selected FIR that is particularly related to them and notification is send to that citizens email account as well.
MAIN SUCCESS SCENARIO	The admin or super admin selects an FIR to update its status. Then system validates the action and saves the updated FIR status in the database and displays a confirmation message to them
GOAL	To enable admin or super admin update the status of an existing FIR within the E-FIR system.

Table 3.5.5 Use Case for Update FIR Status

### 3.5.6 Edit FIR

This Table 3.5.6 illustrates the detail procedure of Edit FIR process

USECASE NAME	Edit FIR
SCOPE	Allow the citizen, admin, super admin to Edit FIR details
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For editing FIR, the citizen, admin, super admin must be authenticated and log in to access this feature and that particular FIR must be submitted. For citizen, if status of FIR is pending then the citizen is allowed to edit the FIR
POSTCONDITIONS	The citizen, admin, or super admin successfully edit the details of the selected FIR that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects an FIR to edit. Then system validates the entered information and saves the updated FIR in the database and displays a confirmation message to them
GOAL	To enable citizen, admin, super admin to modify and update the details of an existing FIR within the E-FIR system.

Table 3.5.6 Use Case for Edit FIR

### 3.5.7 Delete FIR

This Table 3.5.7 illustrates the detail procedure of Delete FIR process

USECASE NAME	Delete FIR
SCOPE	Allow the citizen to Delete FIR details
PRIMARY ACTORS	Citizen
PRECONDITIONS	For deleting FIR, the citizen must be authenticated and log in to access this feature and that particular FIR must belong to that citizen. For citizen, if status of FIR is pending then then citizen is allowed to delete the FIR
POSTCONDITIONS	The citizen successfully deletes the selected FIR that is particularly belongs to that citizen.
MAIN SUCCESS SCENARIO	The citizen selects an FIR to delete. Then system re confirmed the deletion action and delete that particular FIR in the database and displays a confirmation message to citizen
GOAL	To enable citizen to delete an existing FIR within the E-FIR system.

Table 3.5.7 Use Case for Delete FIR

### 3.5.8 Register Certificate

This Table 3.5.8 illustrates the detail procedure of Register Certificate process

USECASE NAME	Register Certificate
SCOPE	Allow the citizen to create Certificate by writing details of the incident
PRIMARY ACTORS	Citizen
PRECONDITIONS	For registering Certificate, the citizen must be authenticated and log in to access this feature
POSTCONDITIONS	The Certificate will successfully submit and saved in the system and the citizens receive a confirmation of the Certificate submission on their email account.
MAIN SUCCESS SCENARIO	When the citizen fills out the required details in the Certificate form and submits the Certificate form. Then system validates the entered information and saves the Certificate in the database. the citizens receive a confirmation of the Certificate submission on their email account. Now Certificate is available for review and processing by the relevant authorities.
GOAL	To allow citizens to submit a Certificate electronically through the E-FIR system, ensuring it is recorded and processed by the authorities.

Table 3.5.8 Use Case for Register Certificate

### 3.5.9 View Certificate

This Table 3.5.9 illustrates the detail procedure of View Certificate process

USECASE NAME	View Certificate
SCOPE	Allow the citizen, admin, super admin to View Certificate details
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For viewing Certificate, the citizen, admin, super admin must be authenticated and log in to access this feature and that particular Certificate must be submitted
POSTCONDITIONS	The citizen, admin, super admin successfully views the details of the selected Certificate that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects a Certificate to view. Then system retrieves the Certificate details from the database and finally it will display the Certificate details to them.
GOAL	To allow citizen, admin, super admin to view the details of a Certificate in the E-FIR system, ensuring they can access the necessary information like status, pdf file etc.

Table 3.5.9 Use Case for View Certificate

### 3.5.10 Update Certificate Status

This Table 3.5.10 illustrates the detail procedure of Update Certificate Status process

USECASE NAME	Update Certificate Status
SCOPE	Allow the admin, super admin to Update Certificate status
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	For updating Certificate status admin or super admin must be authenticated and log in to access this feature and that particular Certificate must be submitted
POSTCONDITIONS	The admin, or super admin successfully updates the status of the selected Certificate that is particularly related to them and notification is send to that citizens email account as well.
MAIN SUCCESS SCENARIO	The admin or super admin selects a Certificate to update its status. Then system validates the action and saves the updated Certificate status in the database and displays a confirmation message to them
GOAL	To enable admin or super admin update the status of an existing Certificate within the E-FIR system.

Table 3.5.10 Use Case for Update Certificate Status

### 3.5.11 Edit Certificate

This Table 3.5.11 illustrates the detail procedure of Edit Certificate process

USECASE NAME	Edit Certificate
SCOPE	Allow the citizen, admin, super admin to Edit Certificate details
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For editing Certificate, the citizen, admin, super admin must be authenticated and log in to access this feature and that particular Certificate must be submitted. For citizen, if status of Certificate is pending then the citizen is allowed to edit the Certificate
POSTCONDITIONS	The citizen, admin, or super admin successfully edit the details of the selected Certificate that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects a Certificate to edit. Then system validates the entered information and saves the updated Certificate in the database and displays a confirmation message to them
GOAL	To enable citizen, admin, super admin to modify and update the details of an existing Certificate within the E-FIR system.

Table 3.5.11 Use Case for Edit Certificate

### 3.5.12 Delete Certificate

This Table 3.5.12 illustrates the detail procedure of Delete Certificate process

USECASE NAME	Delete Certificate
SCOPE	Allow the citizen to Delete Certificate details
PRIMARY ACTORS	Citizen
PRECONDITIONS	For deleting Certificate, the citizen must be authenticated and log in to access this feature and that particular Certificate must belong to that citizen. For citizen, if status of Certificate is pending then then citizen is allowed to delete the Certificate
POSTCONDITIONS	The citizen successfully deletes the selected Certificate that is particularly belongs to that citizen.
MAIN SUCCESS SCENARIO	The citizen selects a Certificate to delete. Then system re confirmed the deletion action and delete that particular Certificate in the database and displays a confirmation message to citizen
GOAL	To enable citizen to delete an existing Certificate within the E-FIR system.

Table 3.5.12 Use Case for Delete Certificate

### 3.5.13 Register Request

This Table 3.5.13 illustrates the detail procedure of Register Request process

USECASE NAME	Register Request
SCOPE	Allow the citizen to create Request by writing details of the incident
PRIMARY ACTORS	Citizen
PRECONDITIONS	For registering Request, the citizen must be authenticated and log in to access this feature
POSTCONDITIONS	The Request will successfully submit and saved in the system and the citizens receive a confirmation of the Request submission on their email account.
MAIN SUCCESS SCENARIO	When the citizen fills out the required details in the Request form and submits the Request form. Then system validates the entered information and saves the Request in the database. the citizens receive a confirmation of the Request submission on their email account. Now Request is available for review and processing by the relevant authorities.
GOAL	To allow citizens to submit a Request electronically through the E-FIR system, ensuring it is recorded and processed by the authorities.

Table 3.5.13 Use Case for Register Request

### 3.5.14 View Request

This Table 3.5.14 illustrates the detail procedure of View Request process

USECASE NAME	View Request
SCOPE	Allow the citizen, admin, super admin to View Request details
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For viewing Request, the citizen, admin, super admin must be authenticated and log in to access this feature and that particular Request must be submitted
POSTCONDITIONS	The citizen, admin, super admin successfully views the details of the selected Request that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects a Request to view. Then system retrieves the Request details from the database and finally it will display the Request details to them.
GOAL	To allow citizen, admin, super admin to view the details of a Request in the E-FIR system, ensuring they can access the necessary information like status, pdf file etc.

Table 3.5.14 Use Case for View Request

### 3.5.15 Update Request Status

This Table 3.5.15 illustrates the detail procedure of Update Request Status process

USECASE NAME	Update Request Status
SCOPE	Allow the admin, super admin to Update Request status
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	For updating Request status admin or super admin must be authenticated and log in to access this feature and that particular Request must be submitted
POSTCONDITIONS	The admin, or super admin successfully updates the status of the selected Request that is particularly related to them and notification is send to that citizens email account as well.
MAIN SUCCESS SCENARIO	The admin or super admin selects a Request to update its status. Then system validates the action and saves the updated Request status in the database and displays a confirmation message to them
GOAL	To enable admin or super admin update the status of an existing Request within the E-FIR system.

Table 3.5.15 Use Case for Update Request Status

### 3.5.16 Edit Request

This Table 3.5.16 illustrates the detail procedure of Edit Request process

USECASE NAME	Edit Request
SCOPE	Allow the citizen, admin, super admin to Edit Request details
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For editing Request, the citizen, admin, super admin must be authenticated and log in to access this feature and that particular Request must be submitted. For citizen, if status of Request is pending then the citizen is allowed to edit the Request
POSTCONDITIONS	The citizen, admin, or super admin successfully edit the details of the selected Request that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects a Request to edit. Then system validates the entered information and saves the updated Request in the database and displays a confirmation message to them
GOAL	To enable citizen, admin, super admin to modify and update the details of an existing Request within the E-FIR system.

Table 3.5.16 Use Case for Edit Request

### 3.5.17 Delete Request

This Table 3.5.17 illustrates the detail procedure of Delete Request process

USECASE NAME	Delete Request
SCOPE	Allow the citizen to Delete Request details
PRIMARY ACTORS	Citizen
PRECONDITIONS	For deleting Request, the citizen must be authenticated and log in to access this feature and that particular Request must belong to that citizen. For citizen, if status of Request is pending then then citizen is allowed to delete the Request
POSTCONDITIONS	The citizen successfully deletes the selected Request that is particularly belongs to that citizen.
MAIN SUCCESS SCENARIO	The citizen selects a Request to delete. Then system re confirmed the deletion action and delete that particular Request in the database and displays a confirmation message to citizen
GOAL	To enable citizen to delete an existing request within the E-FIR system

Table 3.5.17 Use Case for Delete Request

### 3.5.18 Search FIR

This Table 3.5.18 illustrates the detail procedure of Search FIR process

USECASE NAME	Search FIR
SCOPE	Allow the citizen, to Search through FIRs in order to find a particular FIR
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	For searching FIR, the user must be authenticated and log in to access this feature and opened the search page
POSTCONDITIONS	The admin or super admin would be able to view FIR and their searched results and performed the actions according to their need
MAIN SUCCESS SCENARIO	The admin or super admin will search a FIR and instantly will get the searched results and then he can perform the required task
GOAL	To enable admin or super admin to search a particular FIR within the E-FIR system

Table 3.5.18 Use Case for Search FIR

### 3.5.19 Filter FIR

This Table 3.5.19 illustrates the detail procedure of Filter FIR process

USECASE NAME	Filter FIR
SCOPE	Allow the citizen, to Filter through FIRs in order to find or display FIRs
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	For filtering FIR, the user must be authenticated and log in to access this feature
POSTCONDITIONS	The admin or super admin would be able to view FIRs and their filtered results and performed the actions according to their need
MAIN SUCCESS SCENARIO	The admin or super admin will filter the FIR table and instantly will get the filtered results and then he can perform the required task
GOAL	To enable admin or super admin to filter a particular FIR field within the E-FIR system

Table 3.5.19 Use Case for Filter FIR

### 3.5.20 Receive FIR Status Notification

This Table 3.5.20 illustrates the detail procedure of Receive FIR Status Notification process

USECASE NAME	Receive FIR Status Notification
SCOPE	The citizen will get notified when the status of their FIR is changed
PRIMARY ACTORS	Citizen
PRECONDITIONS	The citizen must be authenticated and sign up once to avail this feature and also have registered at least one FIR for whom the status will change
POSTCONDITIONS	Citizen would be up to date regarding new status and the progress of the FIR
MAIN SUCCESS SCENARIO	When citizen submit a FIR in the system then admin or super admin will change the status of FIR. The citizen will get notified about the change through email.
GOAL	The goal is to allow the user to keep up dated regarding the progress of the FIR

Table 3.5.20 Use Case for Receive FIR Status Notification

### 3.5.21 Send Meeting Notification

This Table 3.5.21 illustrates the detail procedure of Send Meeting Notification process

USECASE NAME	Send Meeting Notification
SCOPE	Allow the admin or super admin to send meeting notification to citizens
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	For updating Request status admin or super admin must be authenticated and log in to access this feature and that particular FIR must be present in system
POSTCONDITIONS	The admin or super admin can send meeting notification to the citizen who own that selected FIR and notification is send to that citizens email account as well.
MAIN SUCCESS SCENARIO	The admin or super admin selects the FIR and click on the meeting button. Then write the meeting message and send it and notification is send to that citizens email account. That meeting notification is also shown as message in their chat as well.
GOAL	To enable admin or super admin send meeting notification to citizens and ask them to come to police station at particular time to avoid any huge crowd at police station.

Table 3.5.21 Use Case for Sending Meeting Notification

### 3.5.22 Generate Certificate and FIR Reports

This Table 3.5.22 illustrates the detail procedure of Generate Certificate and FIR Reports process

USECASE NAME	Generate Certificate and FIR Reports in PDF Formats
SCOPE	Allow the citizen, admin, super admin to generate certificate and FIR reports in PDF formats
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For generating FIR and Certificate, the citizen, admin, super admin must be authenticated and log in to access this feature. For citizen, if status of FIR is approved or completed then the citizen is allowed to generate the FIR or certificate
POSTCONDITIONS	The citizen, admin, or super admin successfully generate FIR and certificate that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects an FIR to download it. Then system validates that the user has access to download it or not. If user is authorized for that action, then FIR or certificate will download to their device memory and they can use them.
GOAL	To enable citizen, admin, super admin to generate certificate and FIR reports in PDF formats

Table 3.5.22 Use Case for Generating Certificate and FIR Reports in PDF Formats

### 3.5.23 View Certificate and FIR Reports

This Table 3.5.23 illustrates the detail procedure of View Certificate and FIR Reports process

USECASE NAME	View Certificate and FIR Reports
SCOPE	Allow the citizen, admin, super admin to view certificate and FIR reports
PRIMARY ACTORS	Super-Admin, Admin, Citizen
PRECONDITIONS	For viewing FIR and Certificate, the citizen, admin, super admin must be authenticated and log in to access this feature. For citizen, if status of FIR is approved or completed then the citizen is allowed to view the FIR or certificate
POSTCONDITIONS	The citizen, admin, or super admin can view FIR and certificate that is particularly related to them.
MAIN SUCCESS SCENARIO	The citizen, admin, super admin selects an FIR to view it. Then system validates that the user has access to view it or not. If user is authorized for that action, then FIR or certificate will be shown to them
GOAL	To enable citizen, admin, super admin to view certificate and FIR reports

Table 3.5.23 Use Case for Viewing Certificate and FIR Reports

### 3.5.24 Give Rating

This Table 3.5.24 illustrates the detail procedure of Give Rating process

USECASE NAME	Give Rating
SCOPE	Allow the citizens to give the rating regarding their experience during the investigation progress
PRIMARY ACTORS	Citizen
PRECONDITIONS	The citizen must be authenticated and log in to access this feature and also have registered at least one FIR for whom he/she wants to give rating. If status of FIR is completed then the citizen is allowed to give rating
POSTCONDITIONS	Citizen will give rating on completed FIR and that rating will store in system
MAIN SUCCESS SCENARIO	When citizen FIR's status is completed in the system then he/she is allowed to give rating on the basis of their experience using this system
GOAL	The goal is to allow the citizen to give rating regarding their experience during the investigation progress

Table 3.5.24 Use Case for Giving Ratings

### 3.5.25 View Rating

This Table 3.5.25 illustrates the detail procedure of View Rating process

USECASE NAME	View Rating
SCOPE	Allow the admin or super admin to view the rating
PRIMARY ACTORS	Super-Admin, Admin
PRECONDITIONS	The admin or super admin must be authenticated and log in to view rating
POSTCONDITIONS	The admin or super admin will view rating of completed FIR
MAIN SUCCESS SCENARIO	When citizen will submit rating in the system then admin or super admin will able to view rating
GOAL	The goal is to allow the admin or super admin to view rating that will help to evaluate the performance of investigating officer of the case

Table 3.5.25 Use Case for Viewing Ratings

## 3.6 System Sequence Diagrams

These diagrams depict how a user achieves a given objective. It represents the sequence of events and responses that occur throughout the attainment of a certain objective.

### 3.6.1 Login

This Figure 3.6.1 explains the interaction of user with system with Login. The Login system sequence diagram illustrates the interactions between the user and the system during the authentication process. It outlines the steps involved in verifying the user's credentials and initiating their session within the system.

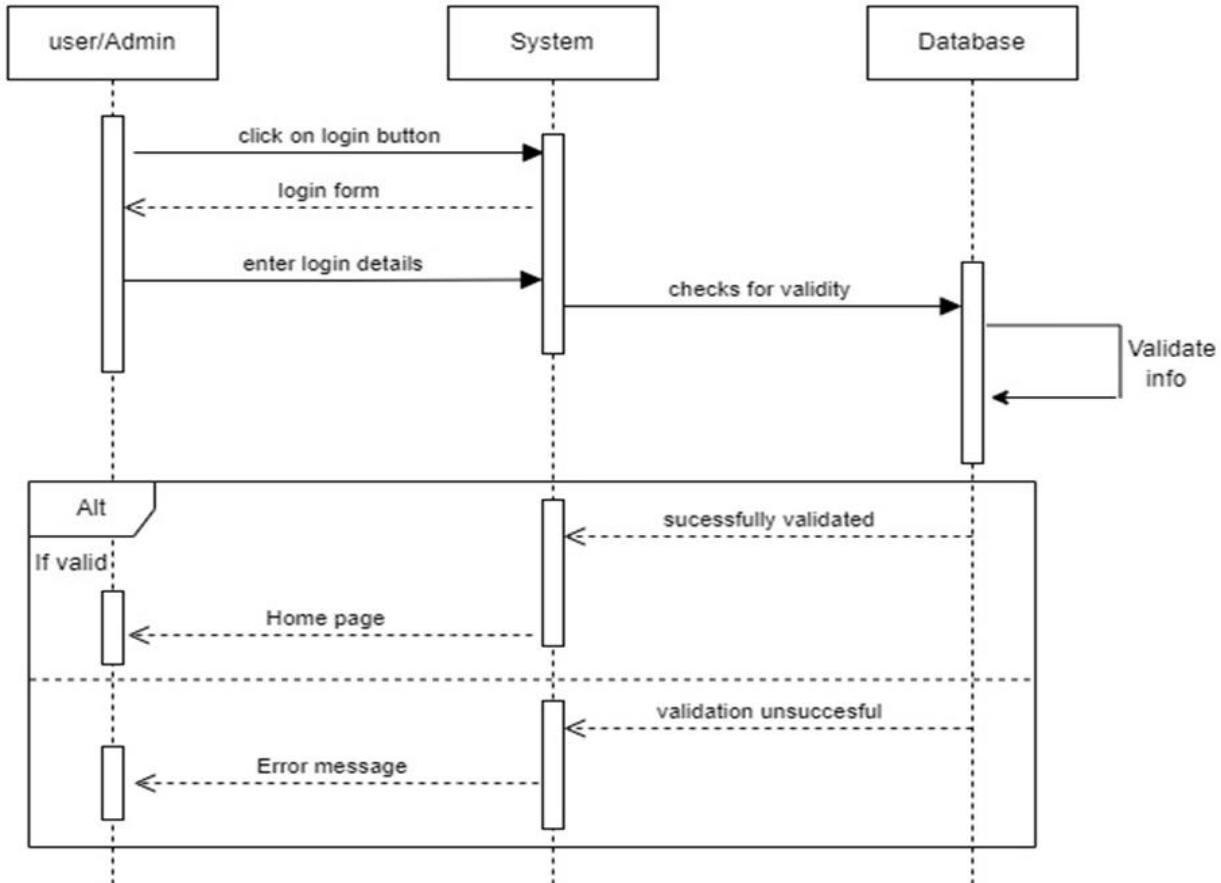


Figure 3.6.1 Sequence Diagram of Login

### 3.6.2 Signup

This Figure 3.6.2 explains the interaction of user with system with Signup. It encompasses the user's input of necessary information, validation of said information, and the creation of a new user profile. Through this process, users can gain access to the system's features and functionalities.

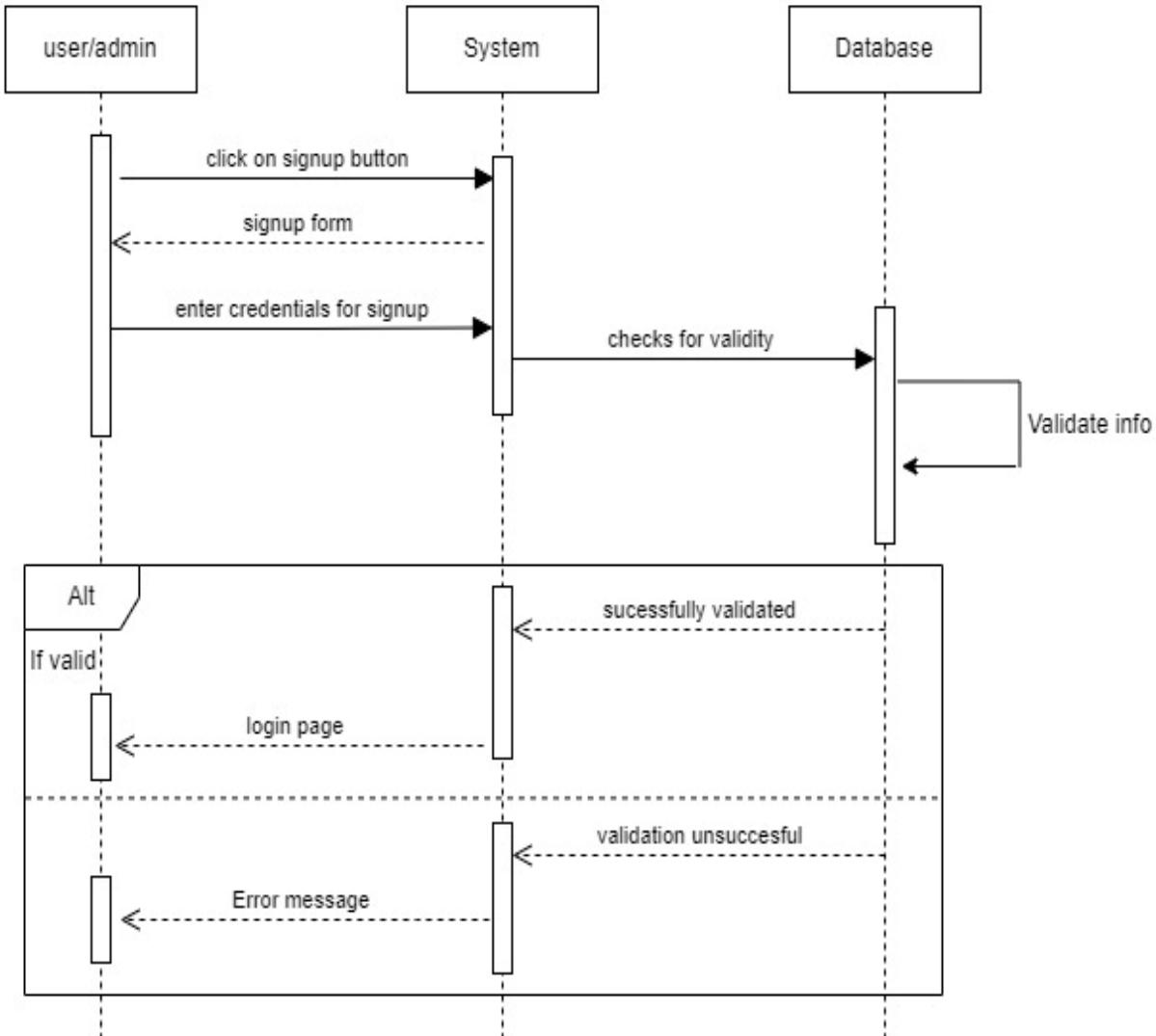


Figure 3.6.2 Sequence Diagram of Signup

### 3.6.3 Change Password

This Figure 3.6.3 explains the interaction of user with system for changing password. "Change Password" is a use case where a user can update their account password. It involves the user initiating the change, the system verifying the user's identity, the user providing a new password, and the system updating the password in the database.

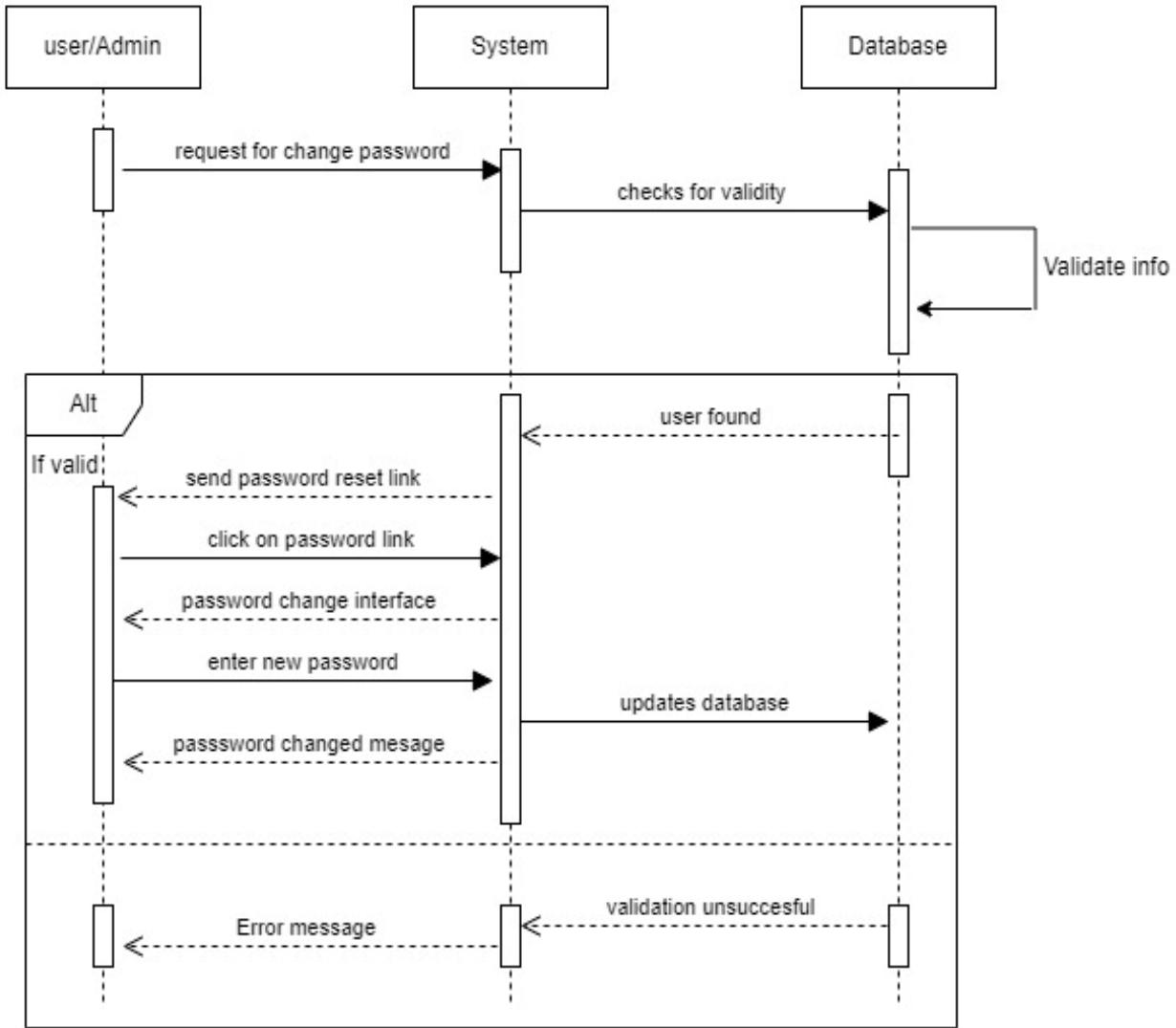


Figure 3.6.3 Sequence Diagram of Change Password

### 3.6.4 Logout

This Figure 3.6.4 explains the interaction of user with system while logout. The Logout system sequence diagram illustrates the interactions between the user and the system during the logout

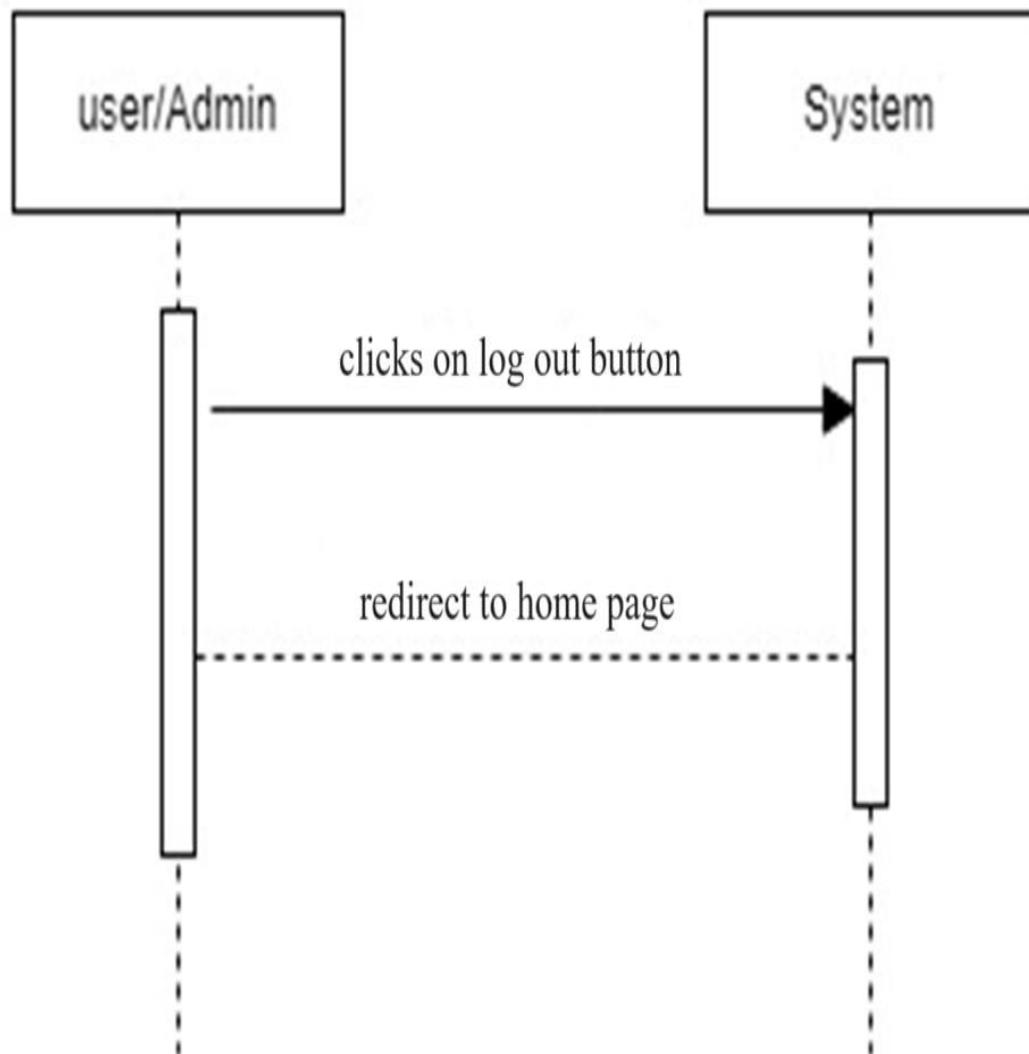


Figure 3.6.4 Sequence Diagram of Logout

### 3.6.5 Register Online FIR

This Figure 3.6.5 explains the interaction of user with system with Online Registration of FIR. This use case illustrates the interaction between users and the E-FIR system, showcasing the flow of actions from online form filling to confirmed message.

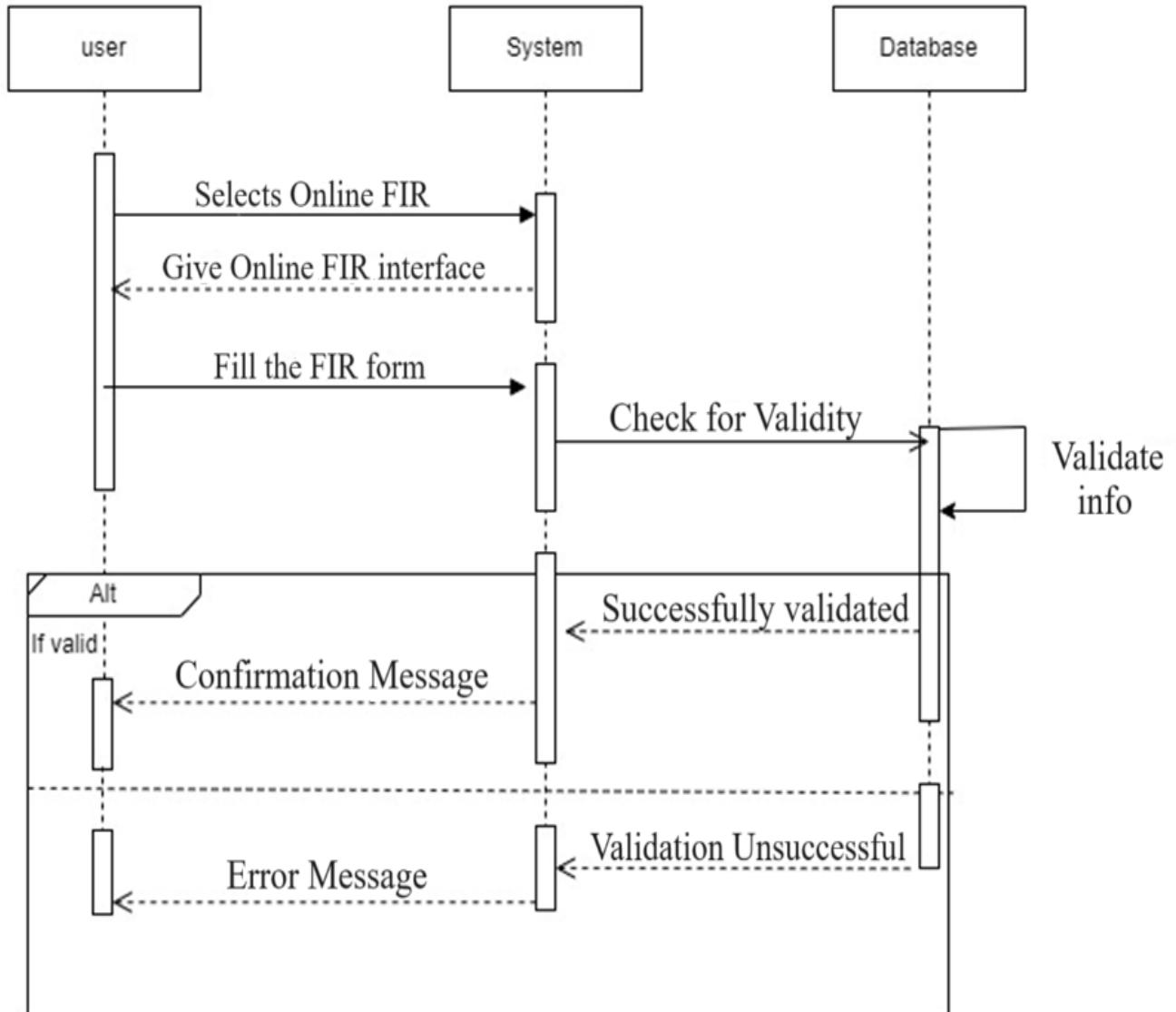


Figure 3.6.5 Sequence Diagram of Register Online FIR

### 3.6.6 Edit FIR

This Figure 3.6.6 explains the interaction of user with system with Edit FIR. This use case illustrates the interaction between users and the E-FIR system, showcasing the flow of actions from modifying already register FIR to confirmation from database.

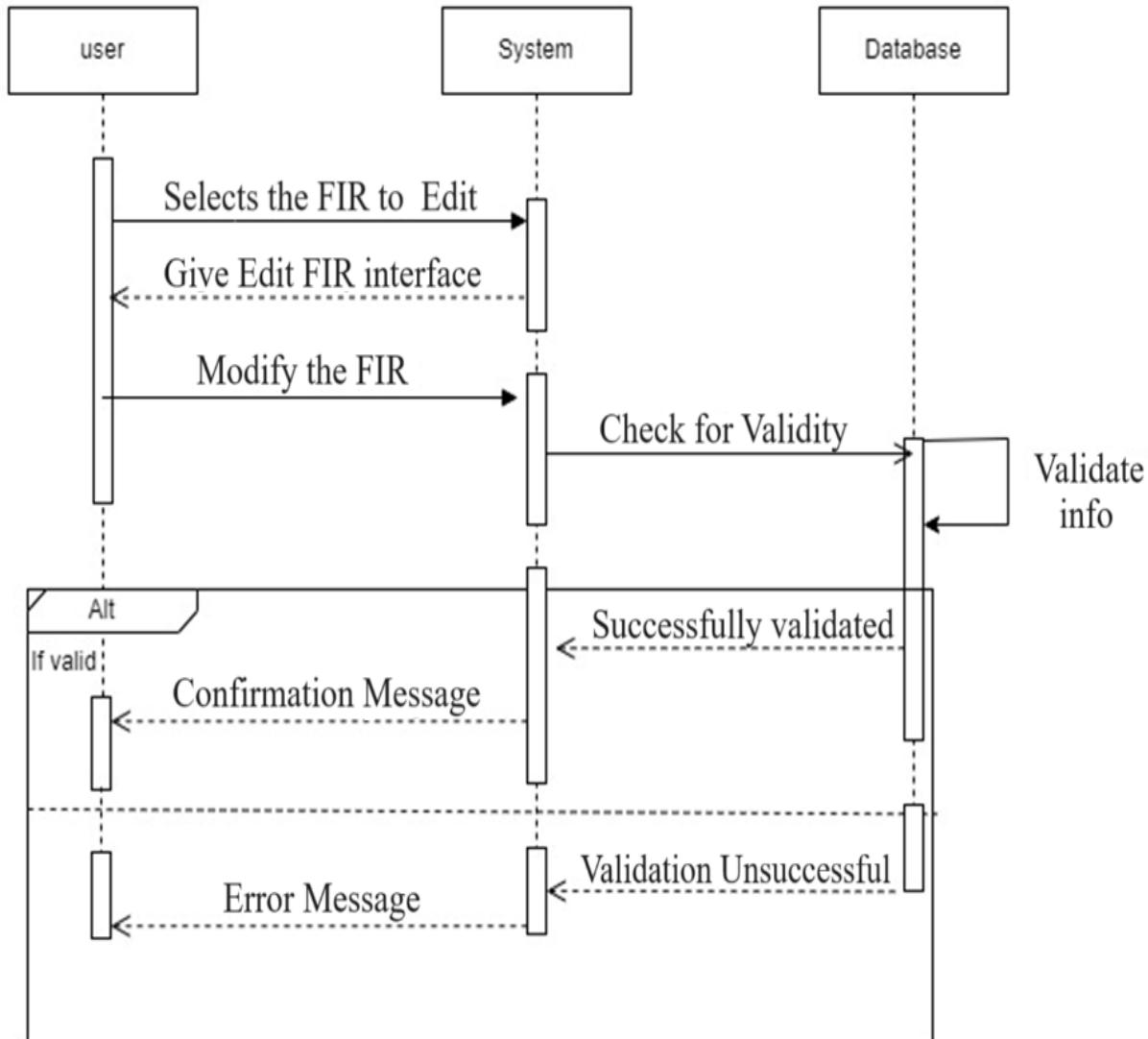


Figure 3.6.6 Sequence Diagram of Edit FIR

### 3.6.7 Delete FIR

This Figure 3.6.7 explains the interaction of user with system while deleting FIR. The Delete FIR system sequence diagram illustrates the interactions between the user and the system during the deletion process. It outlines the steps involved in verifying the user's credentials and initiating their session within the system.

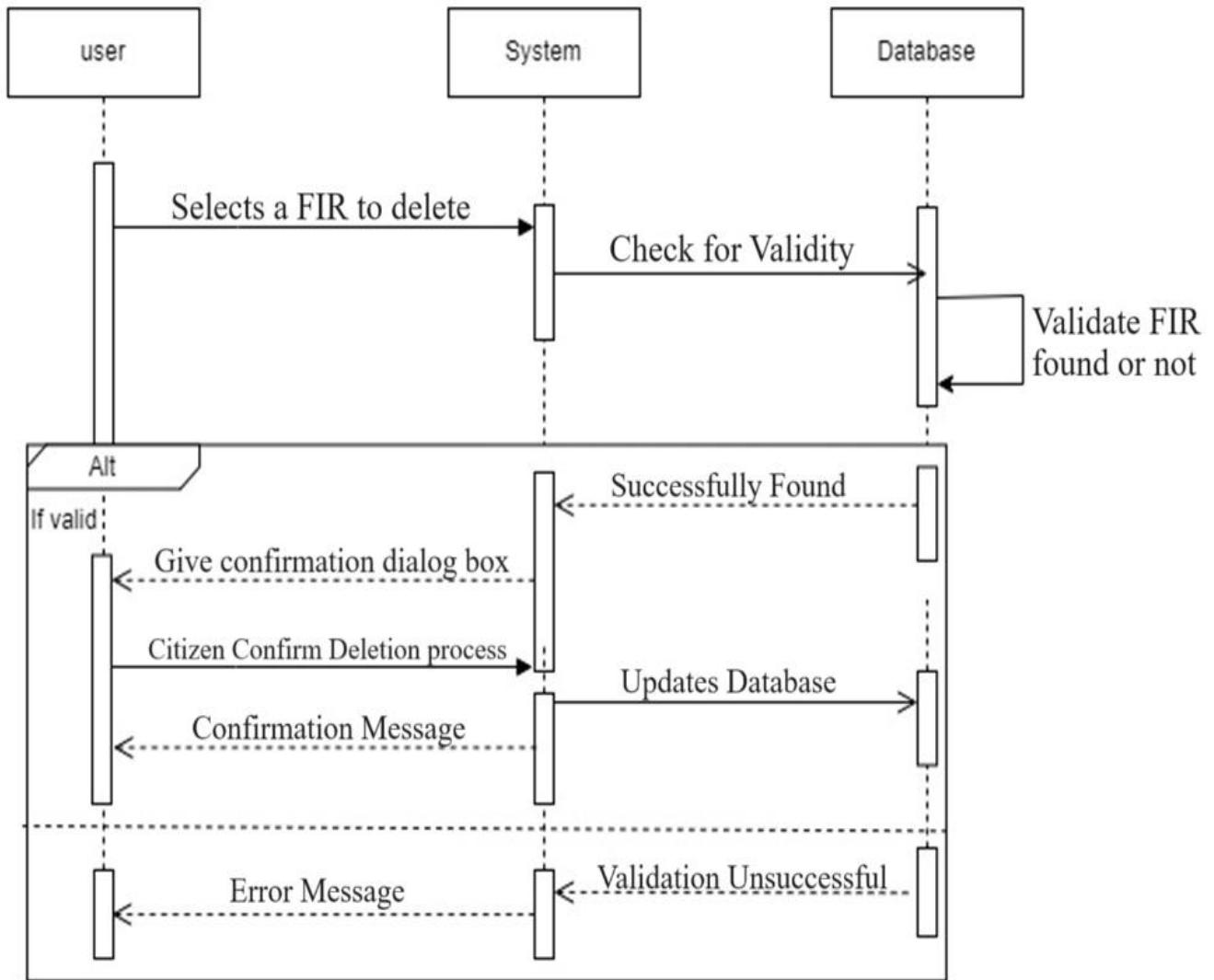


Figure 3.6.7 Sequence Diagram of Delete FIR

### 3.6.8 Submit Ratings

This Figure 3.6.8 explains the interaction of user with system while submitting ratings. The rating system sequence diagram illustrates the interactions between the user and the system during the rating giving process. It outlines the steps involved in verifying the user's credentials and initiating their session within the system.

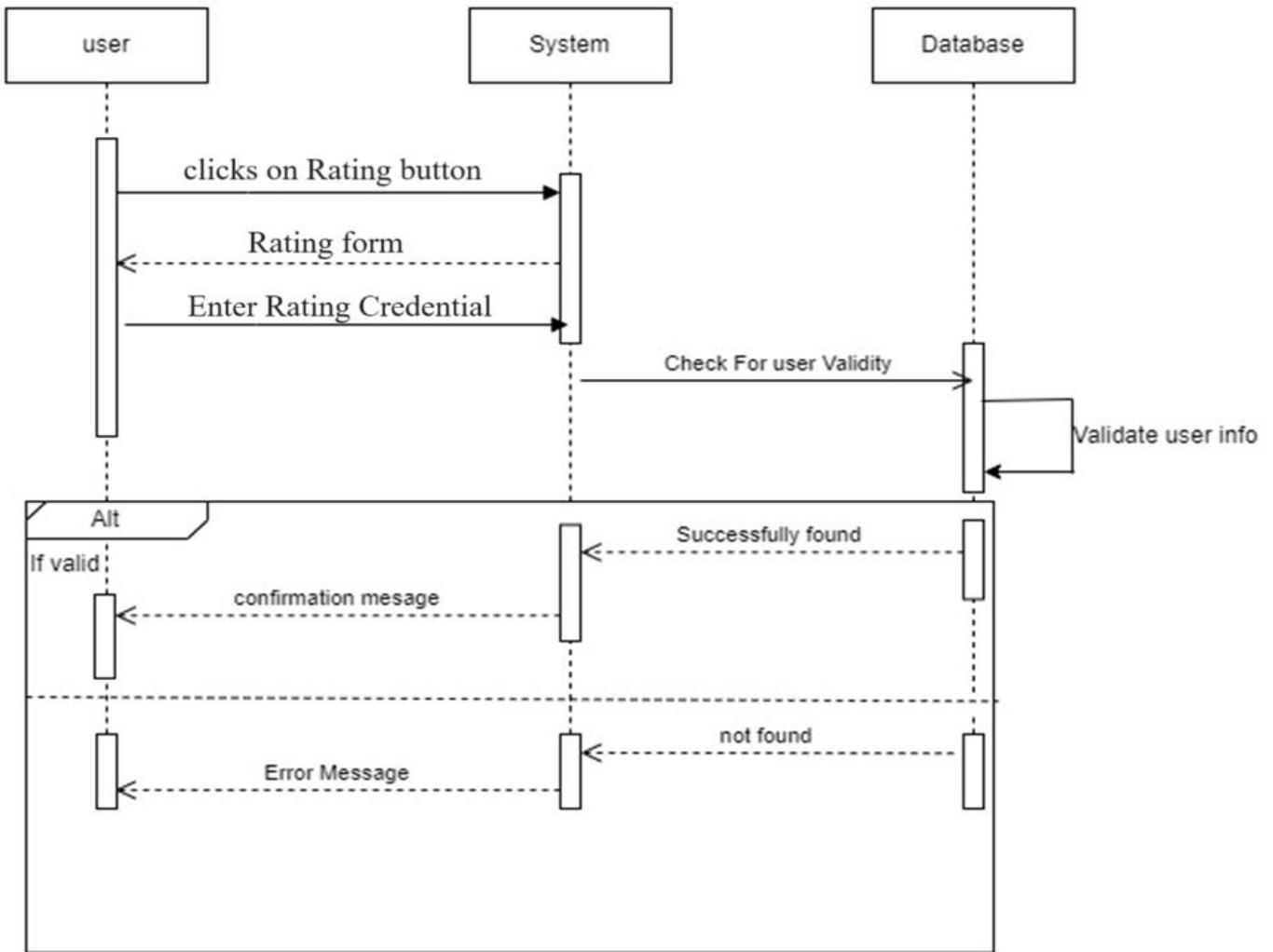


Figure 3.6.8 Sequence Diagram of Submit Ratings

### 3.6.9 Register Online Certificate

This Figure 3.6.9 explains the interaction of user with system with Online Apply for FIR. This use case illustrates the interaction between users and the E-FIR system, showcasing the flow of actions from online form filling to confirmed message.

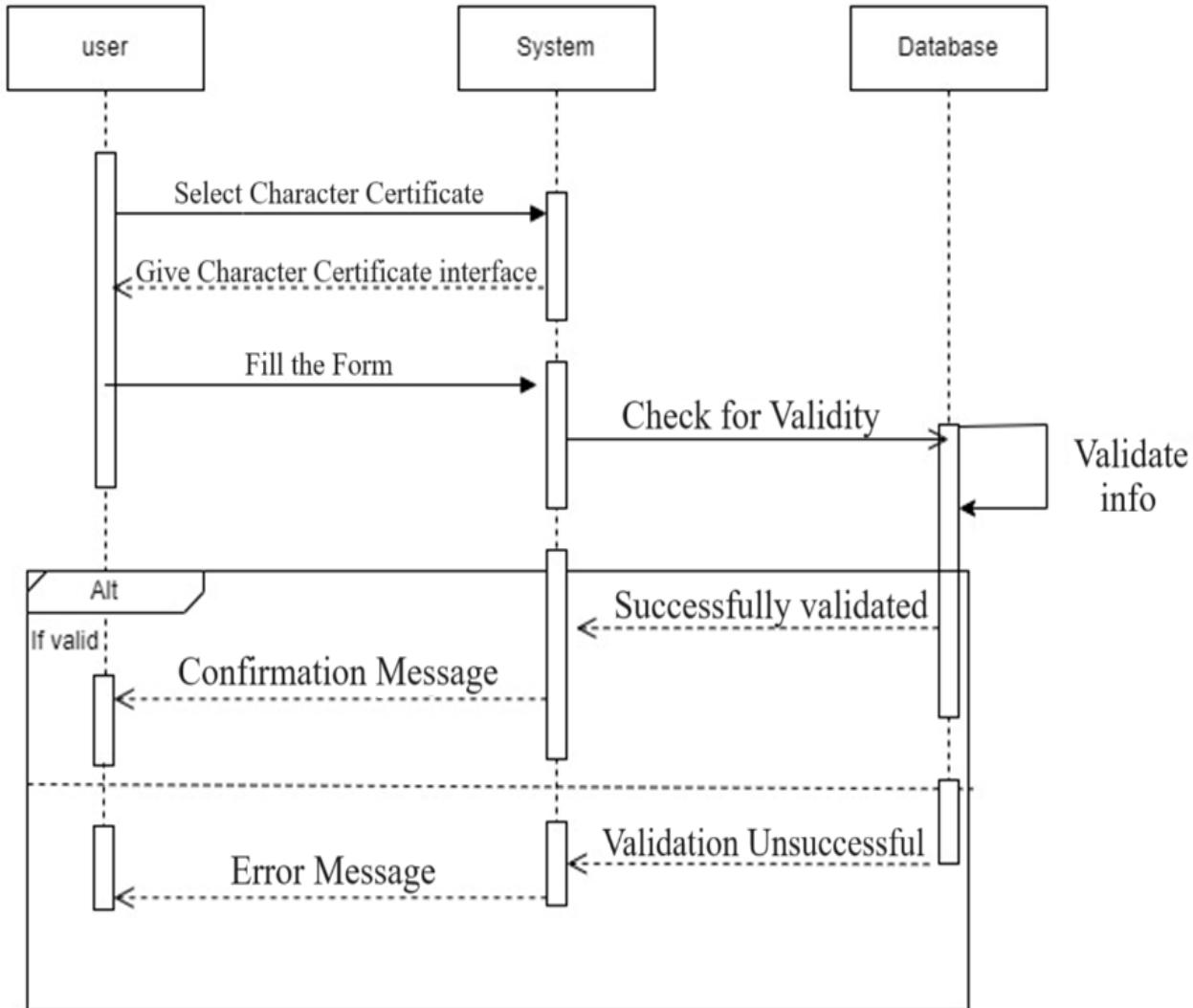


Figure 3.6.9 Sequence Diagram of Register Online Certificate

### 3.6.10 Edit Certificate

This Figure 3.6.10 explains the interaction of user with system with Edit Certificate. This use case illustrates the interaction between users and the E-FIR system, showcasing the flow of actions from modifying already register Certificate to confirmation from database.

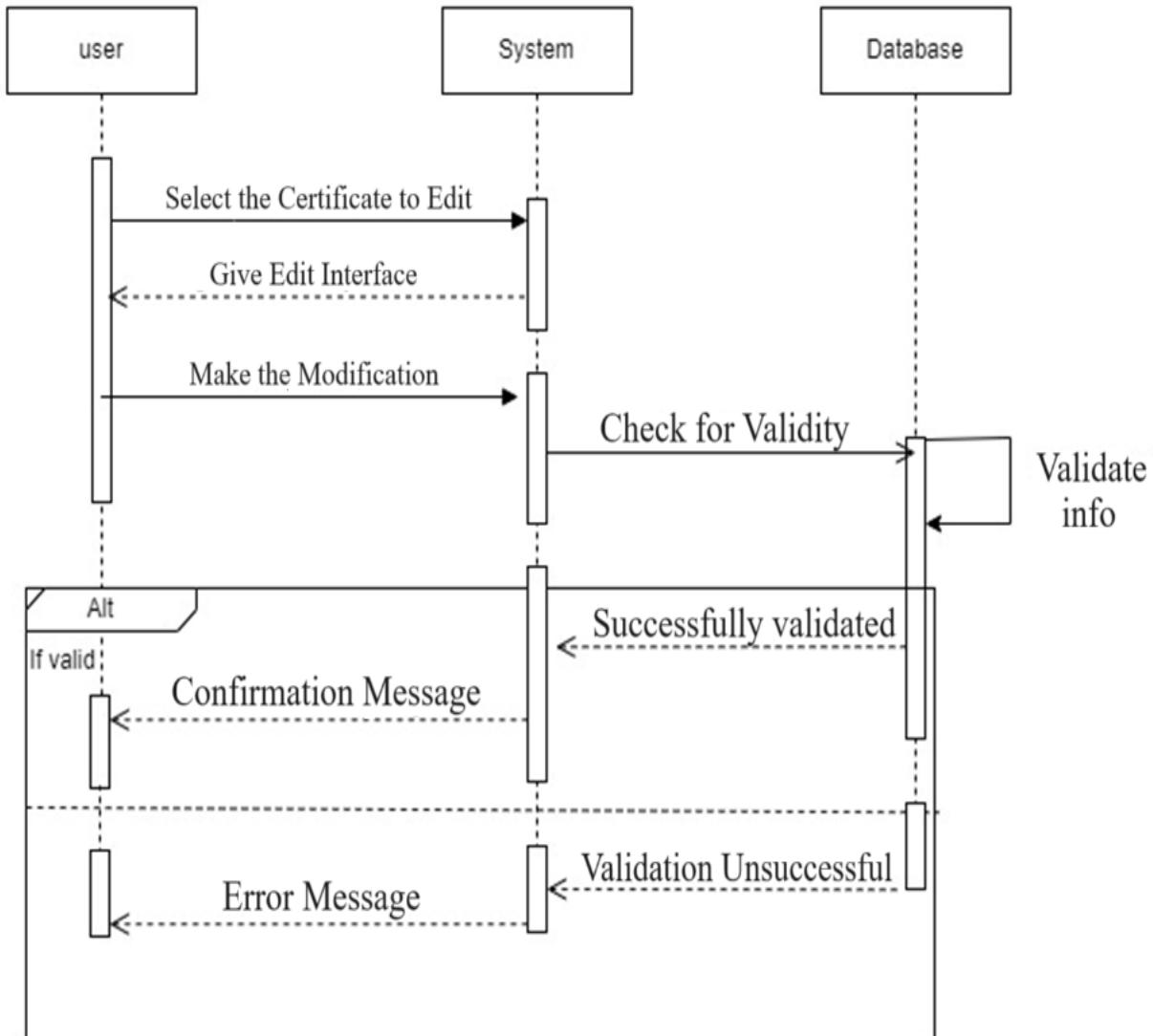


Figure 3.6.10 Sequence Diagram of Edit Certificate

### 3.6.11 Delete Certificate

This Figure 3.6.11 explains the interaction of user with system while deleting certificate. The delete certificate system sequence diagram illustrates the interactions between the user and the system during the deletion process. It outlines the steps involved in verifying the user's credentials and initiating their session within the system.

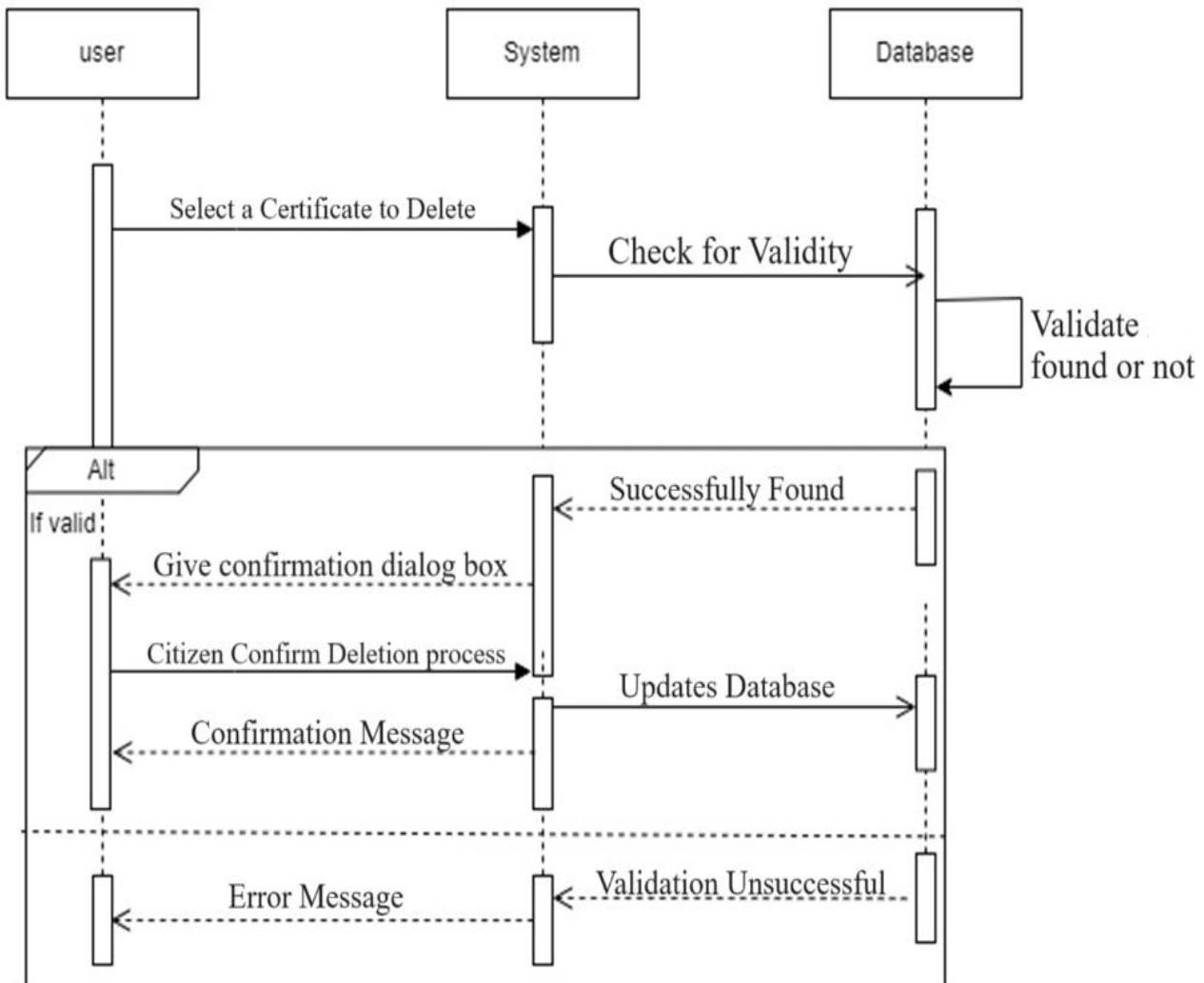


Figure 3.6.11 Sequence Diagram of Delete Certificate

### 3.6.12 Register Vehicle Verification

This Figure 3.6.12 explains the interaction of user with system with Online Apply for Vehicle Verification. This use case illustrates the interaction between users and the E-FIR system, showcasing the flow of actions from online form filling to confirmed message.

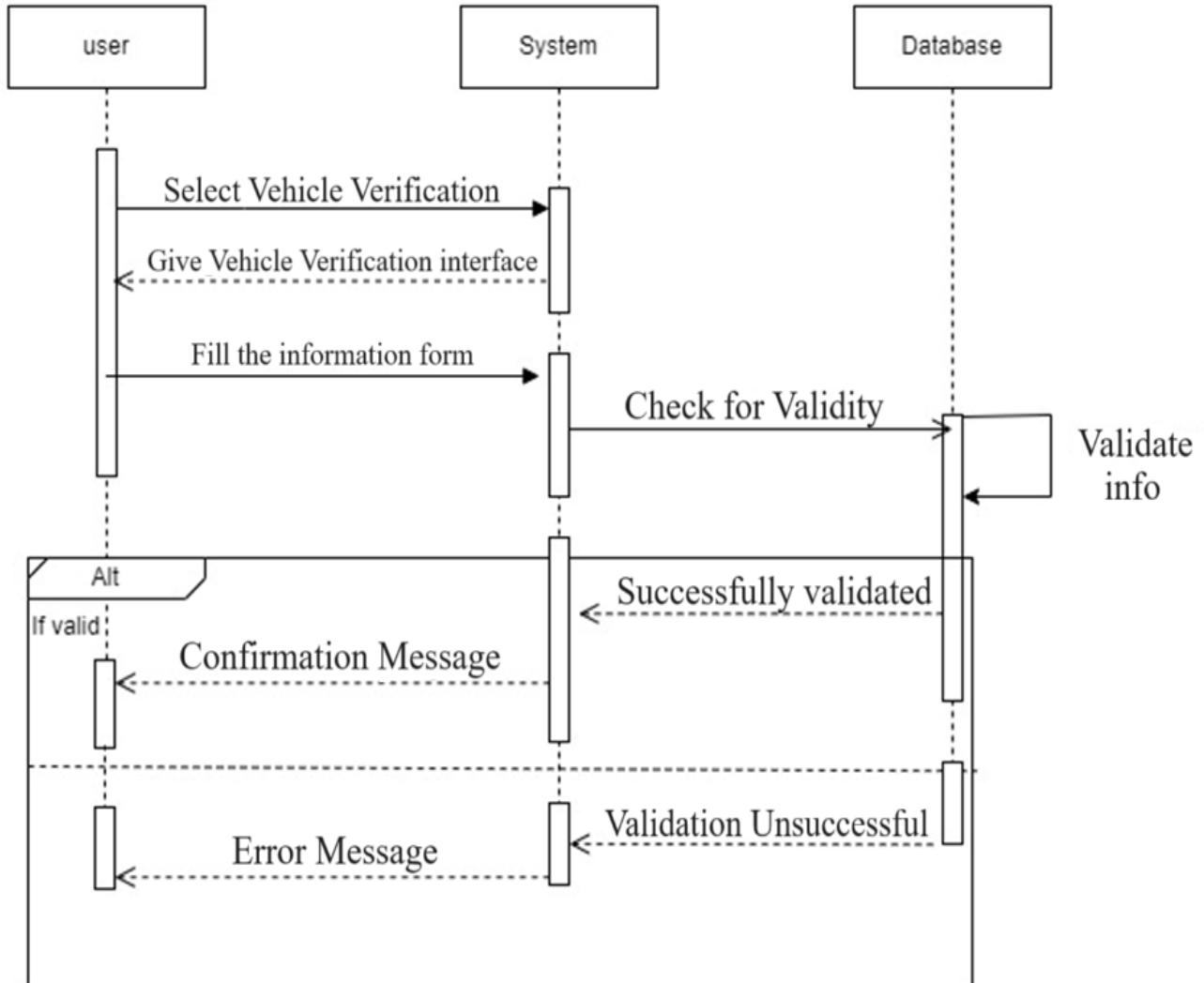


Figure 3.6.12 Sequence Diagram of Register Vehicle Verification

### 3.6.13 Edit Vehicle Verification Request

This Figure 3.6.13 explains the interaction of user with system with Edit Vehicle Verification Request. This use case illustrates the interaction between users and the E-FIR system, showcasing the flow of actions from modifying already register request to confirmation from database.

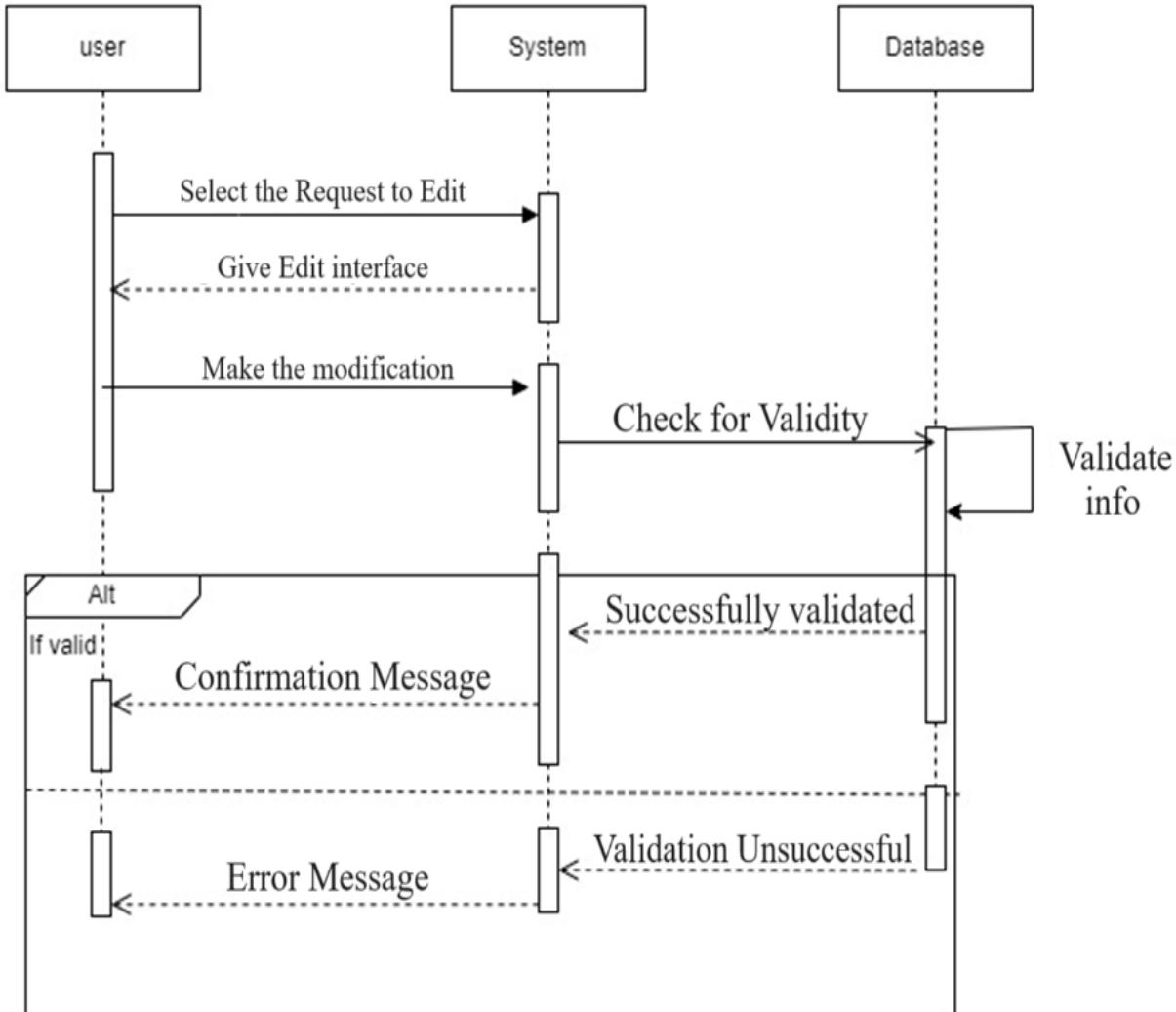


Figure 3.6.13 Sequence Diagram of Edit Vehicle Verification Request

### 3.6.14 Delete Vehicle Verification Request

This Figure 3.6.14 explains the interaction of user with system while deleting vehicle verification request. The delete vehicle verification request system sequence diagram illustrates the interactions between the user and the system during the deletion process. It outlines the steps involved in verifying the user's credentials and initiating their session within the system.

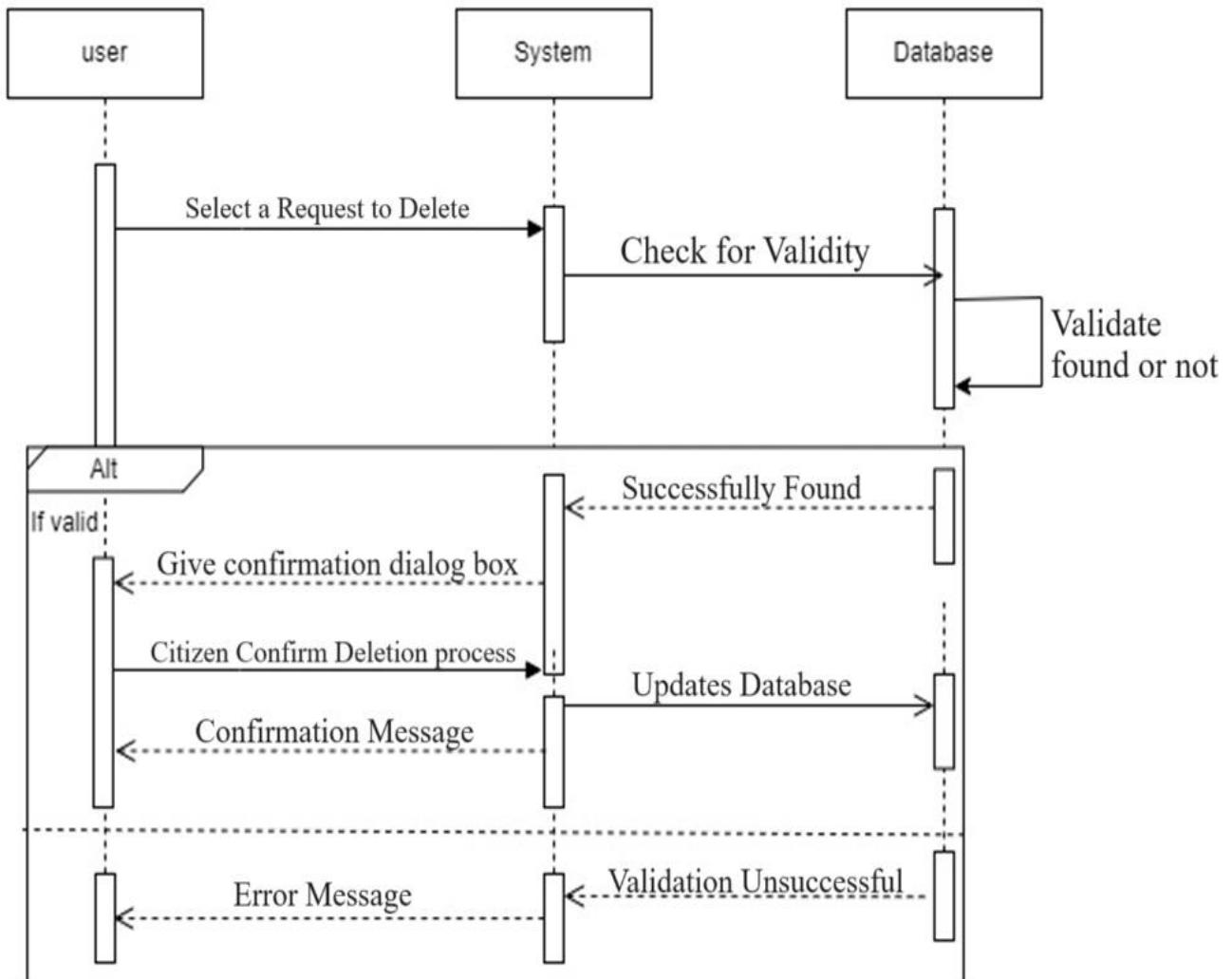


Figure 3.6.14 Sequence Diagram of Delete Vehicle Verification Request

## **Chapter 4**

## **System Design**

## 4.1 Class Diagram

This Figure 4.1 illustrates the structure of a system by showing the classes in the system, their attributes, methods, and relationships. Classes represent entities with common characteristics or behaviors. Associations show how classes are connected, while attributes and methods define the data and behavior of each class. Inheritance indicates that one class inherits attributes and methods from another. Class diagrams help in understanding the overall architecture of a system and serve as a blueprint for implementation.

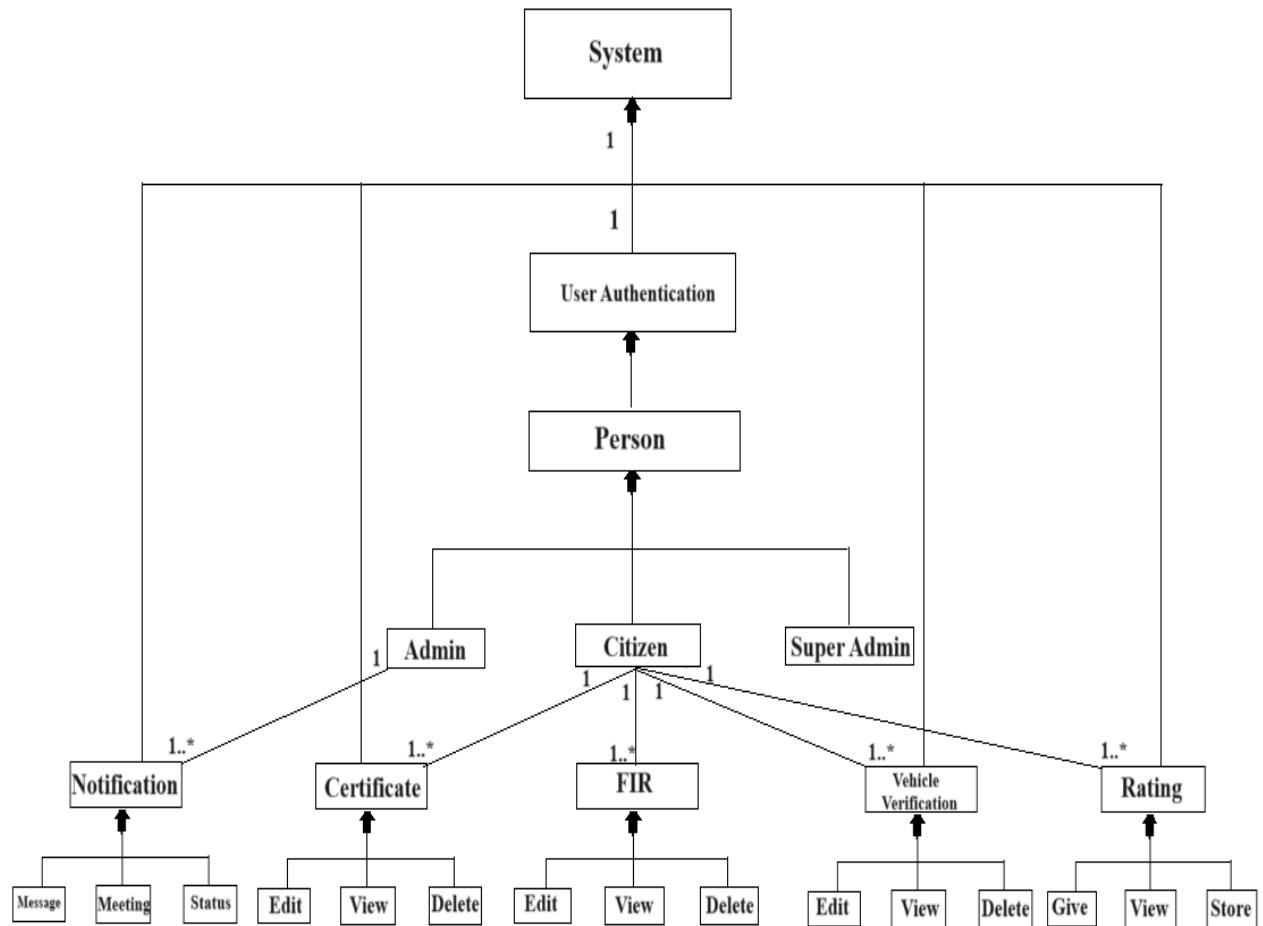


Figure 4.1 Class Diagram of E-FIR System

## 4.2: Entity-Relationship Diagram (ERD)

This Figure 4.2 Entity-Relationship Diagram (ERD) visually represents the entities, attributes, relationships, and constraints within a database. Entities are represented as rectangles, attributes as ovals, and relationships as diamond shapes connecting entities. Cardinality and participation constraints define how entities relate to each other. ERDs help in designing and understanding the structure of a database, ensuring data integrity and efficient data retrieval.

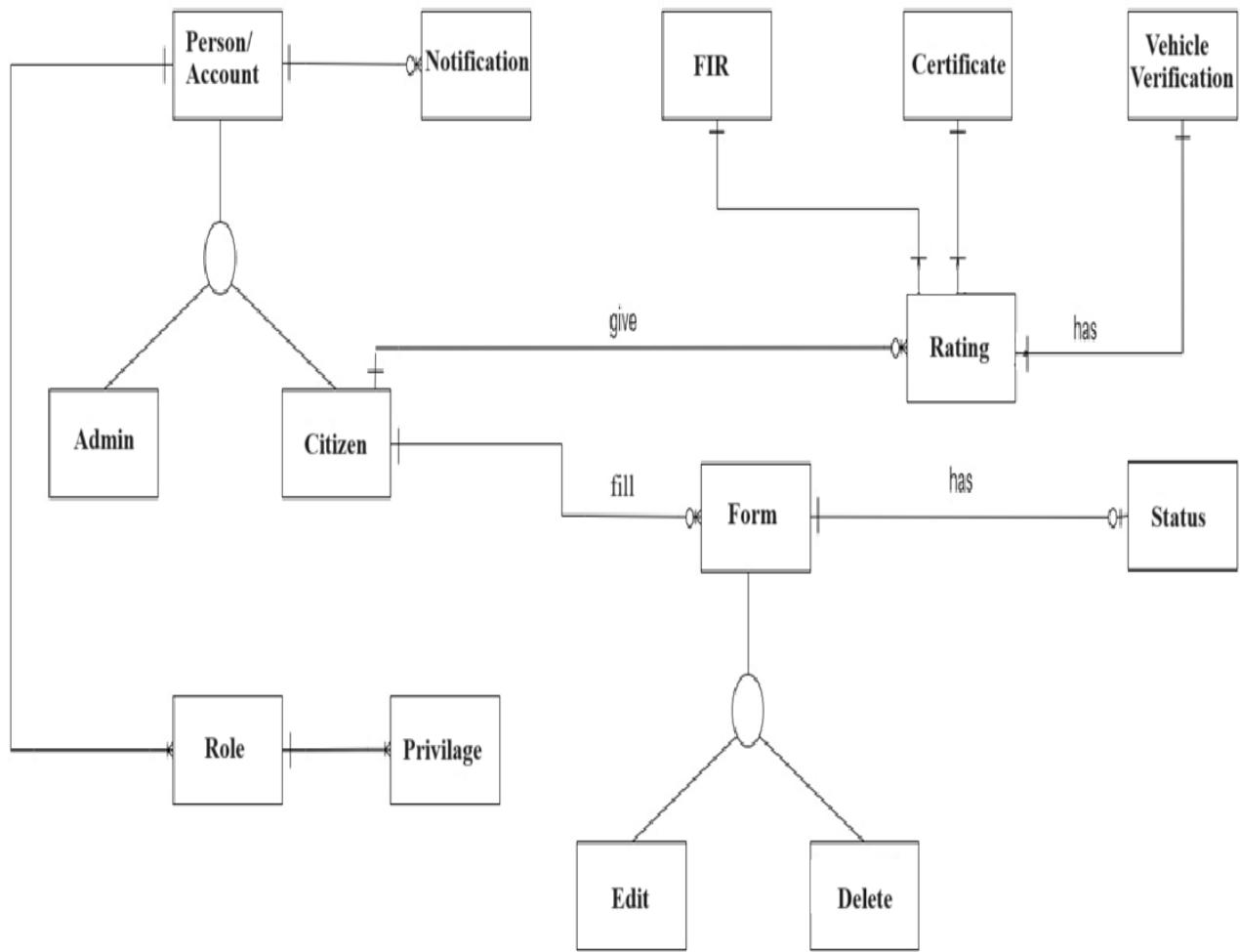


Figure 4.2 Entity-Relationship Diagram of E-FIR System

## 4.3 Activity Diagrams:

The Figure 4.3.1 is a type of behavioral diagram in UML that models the flow of activities in a system. This Figure 4.3.1 represents the workflow of a system, showing the sequence of activities and actions that are involved in completing a specific task. Activity diagrams are especially useful for modeling the logic of complex business processes and workflows. In an activity diagram, activities are represented as rounded rectangles, and transitions between activities are shown as arrows. The start and end of the workflow are denoted by a solid circle and a solid circle with a dot inside, respectively. Decision points, where the flow can diverge based on certain conditions, are represented by a diamond shape.

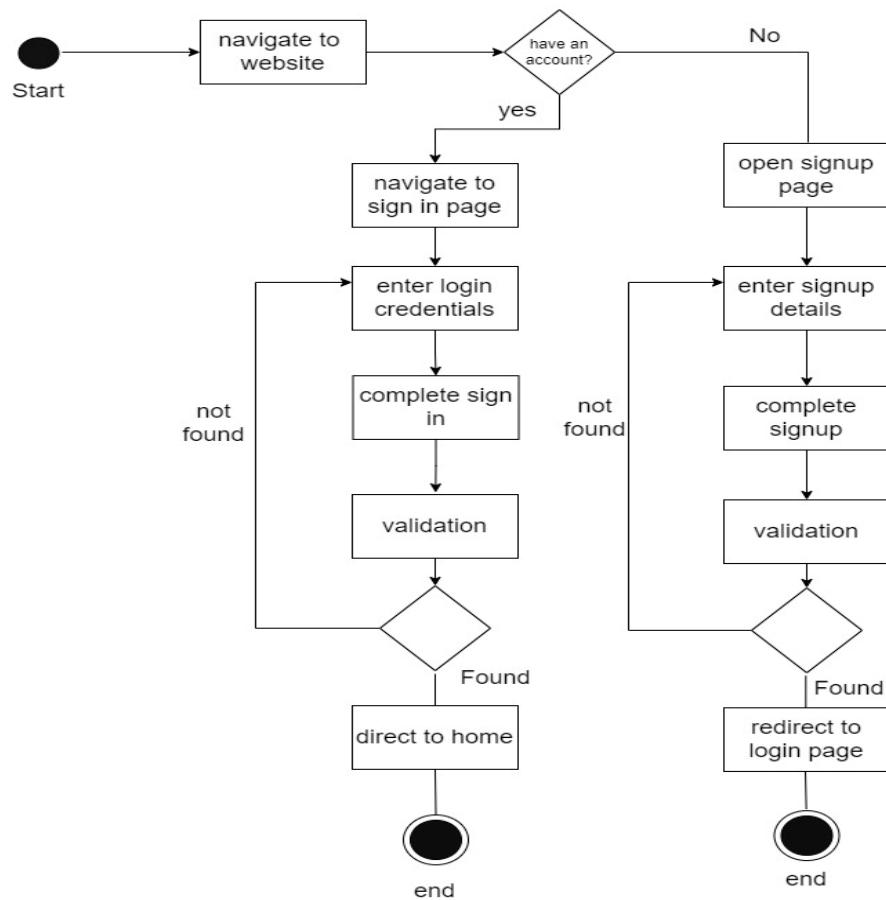


Figure 4.3.1 Activity Diagram of E-FIR System

## **Chapter 5**

## **Implementation**

The implementation chapter in a project documentation serves to provide a detailed account of how the project was developed. It outlines the specific technologies, tools, and methodologies used during development. This chapter typically includes sections on system architecture, database design, implementation details, integration, testing, deployment, performance evaluation, security considerations, and user documentation. It aims to provide a comprehensive overview of the development process, highlighting the key decisions, challenges faced, and solutions implemented. The implementation chapter helps readers understand the technical aspects of the project.

The implementation chapter provides a detailed account of how the E-FIR system was developed, outlining the specific technologies, tools, and methodologies used. This chapter includes sections on system architecture, database design, implementation details, integration, testing, deployment, performance evaluation, security considerations, and user documentation. It aims to provide a comprehensive overview of the development process, highlighting the key decisions, challenges faced, and solutions implemented.

## 5.1 Tools and Technologies

### 5.1.1 Front-End Development

- **HTML/CSS/Bootstrap CSS/JavaScript:**

I have used these fundamental web development technologies for building the website's front-end:

- **HTML:** Used for structuring the web pages.
- **CSS:** Used for styling the web pages.
- **Bootstrap CSS:** Utilized for responsive design and pre-designed components.
- **JavaScript:** Added interactivity to the web pages.

- **Front-End Framework:**

- **React.js:** Chosen for its component-based architecture, which promotes reusability and efficient updates. React's hooks, like useState and useEffect, were extensively used to manage state and side effects.

- **Responsive Design:**

- **Bootstrap:** Used Bootstrap's grid system and responsive utilities to ensure the website looks and functions well on various devices and screen sizes.
- **Media Queries:** Added custom CSS media queries for fine-tuning the responsiveness.

### 5.1.2 Back-End Development

- **Programming Language:**

- **Node.js:** Chosen for its non-blocking, event-driven architecture, which is well-suited for building scalable network applications.

- **Web Framework:**

- **Express.js:** Used to create the server and handle routes, middleware, and HTTP requests.

- **Database:**

- **MongoDB:** A NoSQL database chosen for its flexibility in storing various types of data, such as user data, FIR information, and ratings.

### 5.1.3 User Authentication and Authorization

- **Authentication Library:**

- **Yup and Formik:** I have used authentication libraries like validation yup and formik (for React.js) to implement form validation, registration and login functionality.

### 5.1.4 User Interface Design:

#### Design Tools:

- **Draw.io:** Used for creating user interface (UI) and user experience (UX) designs, as well as system architecture diagrams.

#### Notifications alerts:

- **NodeMailer:** Used to send real-time email notifications to alert citizens about updates of the FIR.

## 5.2 Other Tools

- **VS Code:** Used as the primary code editor due to its extensive range of extensions and customization options.
- **MongoDB:** The database system used to store all application data.
- **Insomnia:** Used for testing API endpoints and ensuring they work as expected.
- **Local Host Servers:** Utilized during development to host and test the application locally.
- **Word:** Used for writing and formatting documentation.
- **Draw.io:** Used for creating diagrams to visually represent system architecture and design.

## 5.3 System Architecture

The system architecture section should include detailed diagrams and explanations of the overall architecture, including how different components interact with each other. For example:

- **Client-Server Architecture:** Describes how the front-end (client) interacts with the back-end (server) via RESTful APIs.
- **Database Design:** Includes the schema design for MongoDB collections, showing how data is stored and related.
- **Component Diagram:** Visual representation of different components (React components, Express middleware, MongoDB collections) and their interactions.
- **Data Flow Diagram:** Illustrates the flow of data between the client, server, and database.

## 5.4 Implementation Details

This section should dive into the specifics of how different parts of the system were implemented, including:

- **Routing in Express.js:** Detailed description of how routes are defined and handled.
- **State Management in React:** Explanation of how state is managed using React hooks and Zustand.
- **Error Handling:** Strategies for error handling on both the client and server sides.
- **Security Considerations:** Measures taken to secure the application, such as input validation, authentication, and authorization.

## 5.5 Integration

Details on how different components were integrated to work together seamlessly. This includes:

- **API Integration:** How the front-end communicates with the back-end via APIs.
- **Third-Party Services:** Integration with third-party services such as email providers (NodeMailer) and authentication services.

## 5.6 Testing

Comprehensive testing strategies and methodologies used, including:

- **Unit Testing:** Tools and frameworks used for unit testing, such as Jest for JavaScript.
- **Integration Testing:** How integration tests were performed to ensure different parts of the system work together.
- **End-to-End Testing:** Tools like Cypress used for end-to-end testing to simulate user interactions.
- **Performance Testing:** Methods used to evaluate the performance and scalability of the system, including load testing and stress testing.

## 5.7 Deployment

Details on how the application was deployed, including:

- **Deployment Platform:** Description of the platform used for deployment, such as AWS, Rander and Versel.
- **CI/CD Pipeline:** Explanation of the continuous integration and deployment pipeline.

## 5.8 Performance Evaluation

Methods used to evaluate the performance of the application, including:

- **Load Testing:** Tools and techniques used for load testing.
- **Performance Metrics:** Key performance indicators (KPIs) monitored and how they were measured.

## 5.9 Security Considerations

Measures taken to ensure the security of the application, including:

- **Data Encryption:** Techniques used for encrypting sensitive data.
- **Access Control:** How access control was implemented to restrict access based on user roles.

## 5.10 User Documentation

Documentation provided to users to help them understand and use the system, including:

- **User Manual:** Step-by-step guide on how to use the application.
- **FAQs:** Frequently asked questions and their answers.
- **Support Information:** Contact information for user support.
- **Live Chat:** Available on the website from 9 AM to 6 PM.

## **Chapter 6**

## **System Testing**

System testing is a comprehensive testing process that evaluates the entire software system as a whole. It is conducted to verify that the system meets its specified requirements and functions correctly in its intended environment. This level of testing focuses on testing the system's behavior, functionality, performance, and reliability.

During system testing, the software is tested in an environment that closely resembles the production environment to ensure that it behaves as expected in real-world scenarios. Various types of testing, such as functional testing, non-functional testing, integration testing, regression testing, and user acceptance testing, are performed to ensure the system's quality and readiness for deployment.

The main objectives of system testing are to identify and fix defects in the system, ensure that it meets the specified requirements, validate its functionality, and verify its performance under various conditions. System testing is an essential part of the software development lifecycle as it helps ensure that the software meets the needs and expectations of its users and stakeholders.

## **6.1 White box testing**

White box testing, also known as clear box testing, glass box testing, or structural testing, is a software testing technique where the internal structure, design, and code of a program are examined to ensure that it functions correctly. Unlike black box testing, which focuses on testing the functionality of the software without knowledge of its internal workings, white box testing is based on an understanding of how the software is implemented.

## **6.2 Black Box testing**

Black box testing is a software testing technique where the internal workings or code structure of the system being tested are not known to the tester. The tester only interacts with the system's inputs and outputs, without any knowledge of how the system processes those inputs to produce outputs.

In black box testing, the tester focuses on the functionality of the system, treating it as a "black box"

where the internal workings are not visible. The goal is to test the system's behavior against its specifications or requirements, without being influenced by its implementation details.

## 6.3 Test Cases

Test cases are detailed specifications that describe the steps, inputs, conditions, and expected results for testing a particular aspect of a software application. They are used to verify that the software behaves as expected under various circumstances and to ensure that it meets the specified requirements.

### 6.3.1 Login

This TC-01 illustrates the test case login:

Test Case ID	TC - 01
Feature	Login
Purpose	To allow registered users to access their accounts securely and personalize their experience on the website.
Action to Perform	<ol style="list-style-type: none"><li>1) Enter registered email and password.</li><li>2) Click on the "Login" button.</li></ol>
Prerequisites	<ol style="list-style-type: none"><li>1) Must have a registered account with the website.</li><li>2) Should have a valid email and password combination.</li></ol>
Environment	E-FIR System
Expected Result	Upon successful login, the user gains access to their account dashboard.
Comment	User will successfully login into website

TC-01. Test Case for Login

### 6.3.2 Signup

This TC-02 illustrates the test case signup:

Test Case ID	TC - 02
Feature	Signup
Purpose	Allow citizen to create an account on the E-FIR system website, enabling them to access personalized features like Online FIR, My Application, Character Certificate etc. and manage their preferences.
Action to Perform	<ol style="list-style-type: none"> <li>1) Navigate to the signup page.</li> <li>2) Enter required information such as name, email address, CNIC, mobile number, profile picture, password and confirm password.</li> <li>3) Solve the captcha puzzle.</li> <li>4) Click the "Sign Up" button to submit the information.</li> </ol>
Prerequisites	<ol style="list-style-type: none"> <li>1) Access to the internet and a web browser.</li> <li>2) Basic understanding of how to navigate websites.</li> <li>3) Necessary information ready to complete the signup process, such as a valid email address, OTP confirmation.</li> </ol>
Environment	E-FIR System
Expected Result	Upon successful submission, the system creates a new user account with the provided details.
Comment	Citizen will successfully create his account in website

TC-02. Test Case for Signup

### 6.3.3 Logout

This TC-03 illustrates the test case logout:

Test Case ID	TC - 03
Feature	Logout
Purpose	To allow users to securely end their session and log out from the E-FIR system website.
Action to Perform	Click on the "Logout" button/icon displayed on the website interface
Prerequisites	<ul style="list-style-type: none"> <li>1) The user must be logged in to their account to perform the logout action.</li> <li>2) Stable internet connection to ensure successful communication with the server</li> </ul>
Environment	E-FIR System
Expected Result	After clicking on the "Logout" button, the user's session is terminated, and they are redirected to the login page or a homepage if applicable
Comment	User will successfully Logout from his/her account

TC-03. Test Case for Logout

### 6.3.4 Change Password

This TC-04 illustrates the test case change password

Test Case ID	TC - 04
Feature	Change Password
Purpose	Allow users to update their account password for security reasons. Enhance user control over account access and data protection.
Action to Perform	<ol style="list-style-type: none"> <li>1) Navigate to the "Change Password" section in the My Applications setting.</li> <li>2) Input the current password for authentication.</li> <li>3) Enter the new desired password and confirm it.</li> <li>4) Submit the password change request.</li> </ol>
Prerequisites	<ol style="list-style-type: none"> <li>1) Access to the user account on the E-FIR System website.</li> <li>2) Knowledge of the current password to authenticate the user's identity.</li> </ol>
Environment	E-FIR System
Expected Result	Successful password change confirmation message.
Comment	User will successfully change his account password for security

TC-04. Test Case for Change Password

### 6.3.5 Case for Searching FIR

This TC-05 illustrates the test case Searching FIR

Test Case ID	TC - 05
Feature	Searching FIR
Purpose	To provide a functionality for admins or super admin to search FIR information related to access offered through the website.
Action to Perform	<ol style="list-style-type: none"> <li>1. Admin must navigate to the searching page of website</li> <li>2. He will search FIR information from interface by giving some relevant information of that particular FIR</li> <li>3. He can see the searched result.</li> </ol>
Prerequisites	Admin must open the searching FIR interface and must present on my site
Environment	E-FIR System
Expected Result	FIR Info will be searched successfully in my website and admin can see the searched data
Comment	FIR data searched successfully

TC-05. Test Case for Searching FIR

### 6.3.6 Case for Registering FIR

This TC-06 illustrates the test case Registering FIR

Test Case ID	TC - 06
Feature	Registering FIR
Purpose	To provide a functionality for authenticated user to register FIR in my website.
Action to Perform	<ol style="list-style-type: none"> <li>1. User must navigate to the Online FIR page of website</li> <li>2. User will fill FIR form by giving relevant information of FIR</li> <li>3. User can submit the FIR.</li> <li>4. User will receive confirmation email.</li> </ol>
Prerequisites	User must open the Online FIR interface and must present on my site
Environment	E-FIR System
Expected Result	FIR will be submitted successfully in my website and admin can see this FIR as well
Comment	FIR submitted successfully

TC-06. Test Case for Registering FIR

### 6.3.7 Case for Editing FIR

This TC-07 illustrates the test case Editing FIR

Test Case ID	TC - 07
Feature	Editing FIR
Purpose	To provide a functionality for authenticated user to edit FIR in my website.
Action to Perform	<ol style="list-style-type: none"> <li>1. User must navigate to the Edit FIR page of website</li> <li>2. User will modify FIR by giving relevant information of FIR</li> <li>3. User can submit the modified FIR again.</li> <li>4. User will receive confirmation message.</li> </ol>
Prerequisites	User must open the Edit FIR interface and must present on my site and status of FIR must be pending to edit FIR
Environment	E-FIR System
Expected Result	FIR will be edited successfully in my website and user will receive confirmation message
Comment	FIR edited successfully

TC-07. Test Case for Editing FIR

### 6.3.8 Case for Deleting FIR

This TC-08 illustrates the test case deleting FIR

Test Case ID	TC - 08
Feature	Deleting FIR
Purpose	To provide a functionality for authenticated user to delete FIR in my website.
Action to Perform	<ol style="list-style-type: none"> <li>1. User must navigate to the Detail FIR page of website</li> <li>2. User will click Delete FIR button and confirmation alert will pop up</li> <li>3. User can confirm the deletion process.</li> <li>4. User will receive confirmation message.</li> </ol>
Prerequisites	User must open the Detail FIR interface and must present on my site and status of FIR must be pending
Environment	E-FIR System
Expected Result	FIR will be deleted successfully in my website and user will receive confirmation message
Comment	FIR Deleted successfully

TC-08. Test Case for deleting FIR

### 6.3.9 Case for Downloading FIR

This TC-09 illustrates the test case downloading FIR

Test Case ID	TC - 09
Feature	Downloading FIR
Purpose	To provide a functionality for authenticated user to download FIR in my website.
Action to Perform	<ol style="list-style-type: none"> <li>1. User must navigate to the Detail FIR page of website</li> <li>2. User will click Download FIR button</li> <li>3. The FIR in PDF format will download in user device</li> </ol>
Prerequisites	User must open the Detail FIR interface and must present on my site and status of FIR must be approved or completed
Environment	E-FIR System
Expected Result	FIR will be downloaded successfully in user device and user will see it in his/her device storage
Comment	FIR Downloaded successfully

TC-09. Test Case for downloading FIR

### 6.3.10 Changing Status of FIR

This TC-10 illustrates the test case changing status of FIR

Test Case ID	TC - 10
Feature	Changing Status of FIR
Purpose	To provide a functionality for admins or super admin to change the status of FIR in my website.
Action to Perform	<ol style="list-style-type: none"> <li>1. Admin must navigate to the My Application page of website</li> <li>2. Admin will click Status option and drop-down menu will pop up</li> <li>3. Admin can choose the Status.</li> <li>4. Admin will receive confirmation message.</li> <li>5. The Citizen of that FIR will be notified through email.</li> </ol>
Prerequisites	Admin must open the My Application interface and must present on my site
Environment	E-FIR System
Expected Result	The status of FIR will be changed successfully in my website and user will receive email
Comment	The status of FIR changed successfully

TC-10. Test Changing Status of FIR

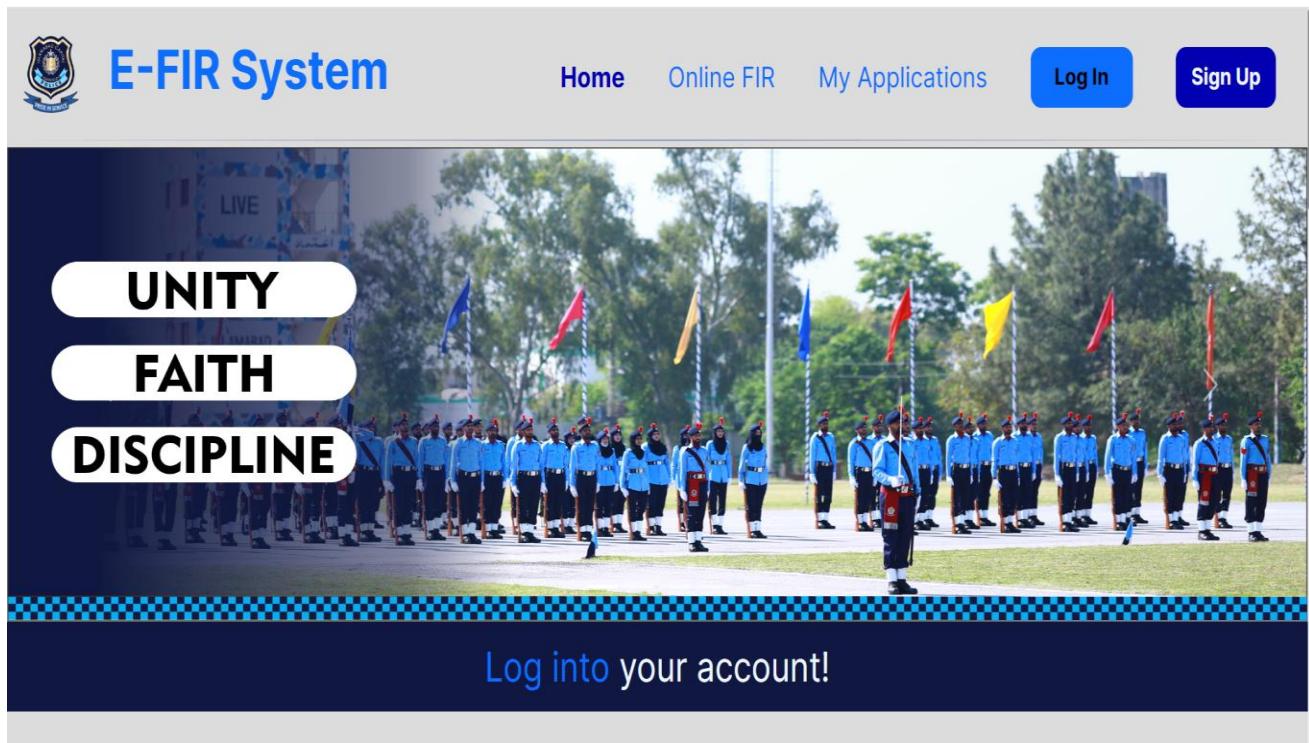
## 6.4 Results

The Table 6.4 displays the results of tests conducted in the predefined modules.

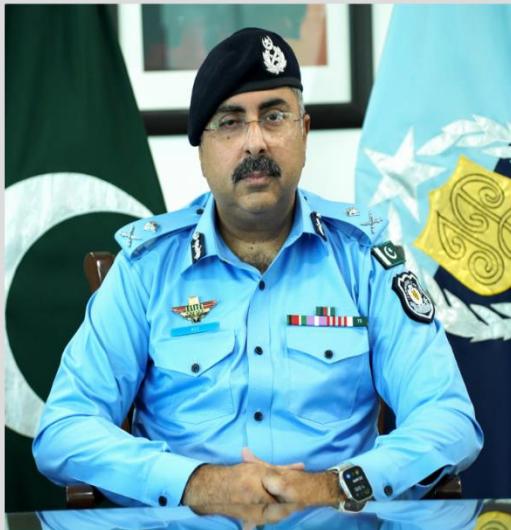
TC-01	Pass
TC-02	Pass
TC-03	Pass
TC-04	Pass
TC-05	Pass
TC-07	Pass
TC-08	Pass
TC-09	Pass
TC-10	Pass

Table 6.4: Result of Test Cases

## 6.5 User interface



## IMPORTANT MESSAGE OF IG ISLAMABAD:



"Law and order is a pre requisite for socio economic prosperity and political stability of any country. For better results, Islamabad Police also encourages community oriented policing to reinforce the basic idea that the fight against crime is a collective effort of both the community and the police. In this regard, we will reach out to you. Looking forward to your support."

**Syed Ali Nasir Rizvi**  
Inspector General of Islamabad Police



Priority Complaints (0)

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- [Police Stations Judiciary](#)
- [Character Certificate](#)
- [Vehicle Verification](#)
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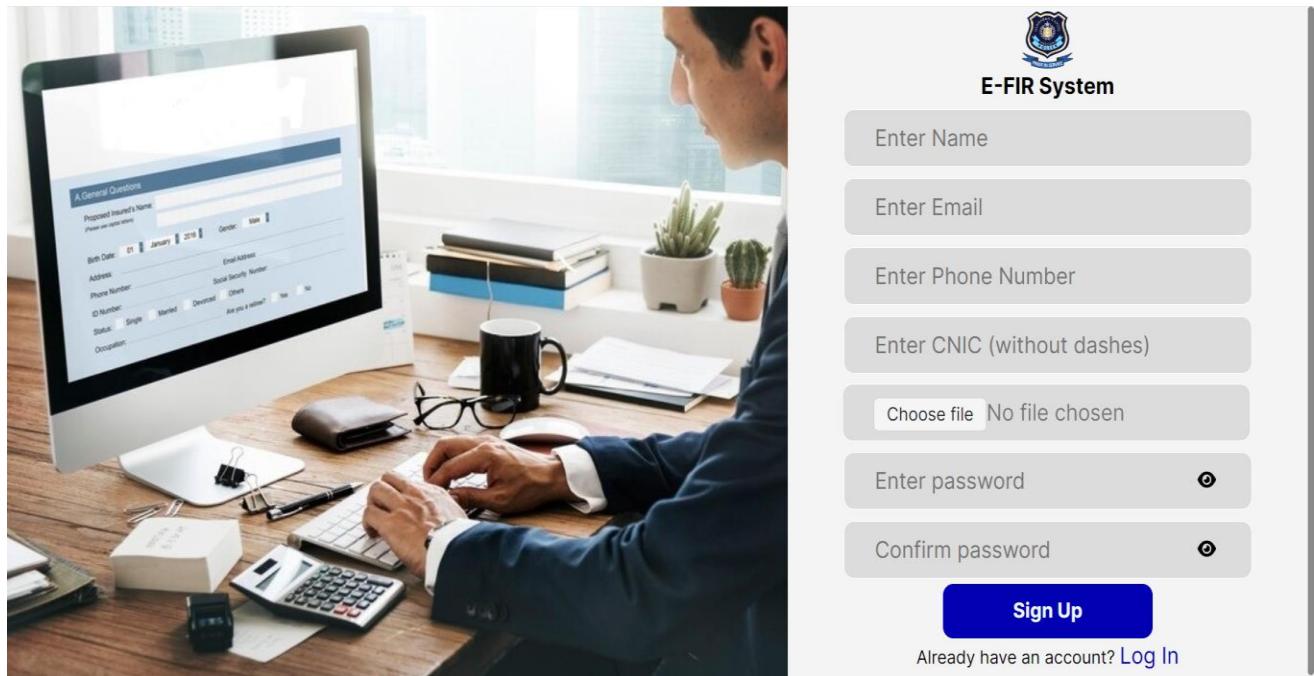
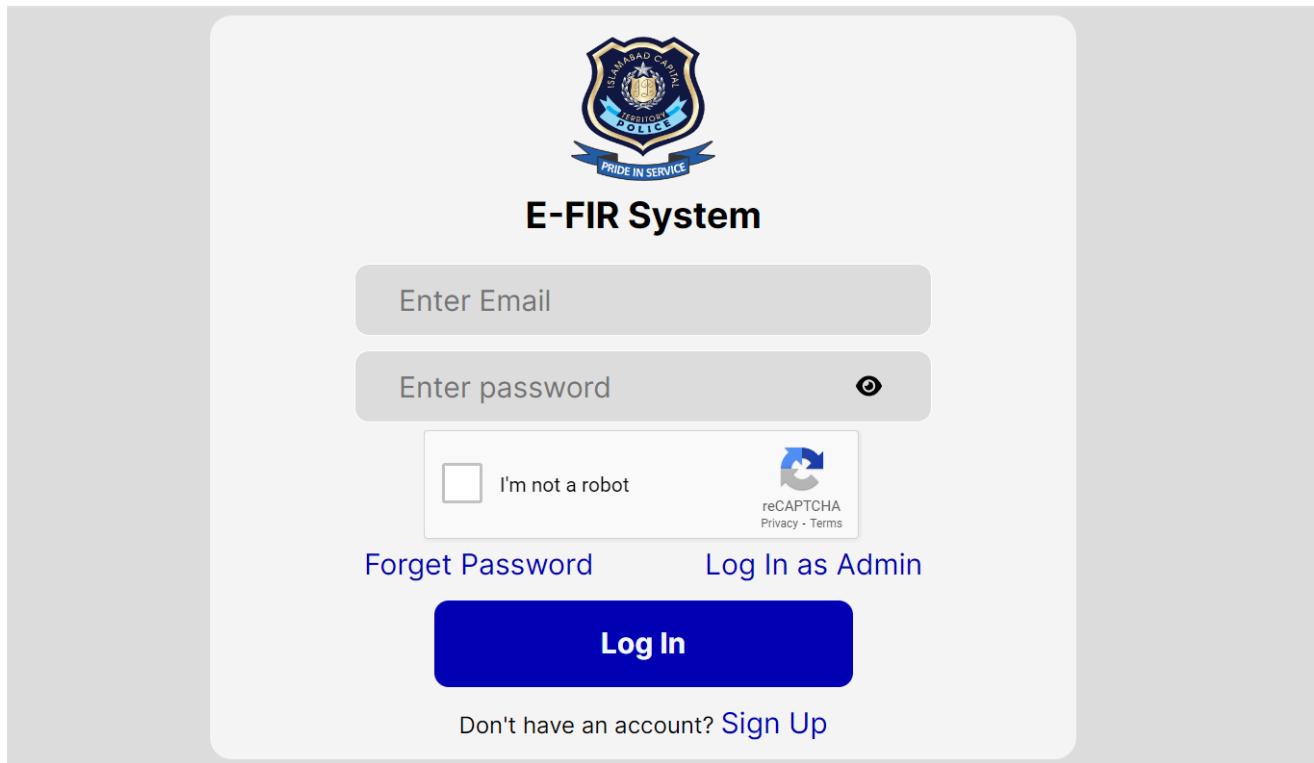
### HELPLINES:

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- [Fire Brigade: 16](#)
- [Rescue: 1122](#)
- [PIMS: 051-9261170](#)
- [Polyclinic: 051-9214965](#)

### ISLAMABAD POLICE

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Police is a trademark and service  
mark of the City of Islamabad





**User Manual Guide:**

Sometimes, It may happened in your life that you went to the police station and you forgot some important documents at home or you may not know that like Citizen Verification Certificate requires two copies of Neighbors ID Card at police station for further processing and then you faced trouble there, so to avoid such trouble, read the below categories carefully!!!

**Character Certificate**      **Police Verification**      **Lost Report**  
**Tenant Registration**      **Foreigner Registration**      **Volunteer Registration**  
**Servent Registration**      **Vehicle Verification**      **Copy of FIR**

**Police Station Margalla**      **Police Station Karachi Company**      **Police Station Secretariate**  
**Police Station Aabpara**      **Police Station Kohsar**      **Police Station Women**

**E-FIR System**

Home    Online FIR    My Applications    Log In    Sign Up

## Police Station Secretariate

Division: City                      Circle: Secretariate

Divisional Police Officer of City

DPO Name: PSP Mr Abdul Aleem

DPO Mobile Number: 03008315055                      DPO Landline Number: 0519246699

DPO Reader Name: ASI Sharafat                      Reader Mobile Number: 0300881416

Circle Incharge of Secretariate

Circle Officer Name: DSP Mr Muhammad Sharif Kolachi

Circle Officer Mobile Number: 03124472952                      Circle Officer Landline Number: 0519206846

## SHO of Police Station Secretariate

SHO Name: Sub Inspector Basharat Mehmood

SHO Mobile Number: 03005527578                      Police Station Landline Number: 0519209132

### Police Station Secretariate Location

**E-FIR System**

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Urdu

## Volunteer Registration:

When registering as a Volunteer, make sure you have the following documents handy if you visit the Police Khidmat Markaz located at Sector F-6/1, H-11 Police Lines or your nearest police station:

**Required Documents:**

1. Applicant must be present.
2. Photocopy of CNIC.
3. Original CNIC.
4. Passport size Photograph.
5. Copy of educational documents.

POLICE LINKS:    QUICK MENUS:    HELPLINES:    ISLAMABAD POLICE

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Eng

## رضاکار رجسٹریشن:

رضاکار بننے کے لئے، یقینی بنائیں کہ آپ کے پاس پولیس خدمت مرکز سیکٹر ایف-1/6، ایچ-11 پولیس لائنز یا آپ کے قریبی پولیس اسٹیشن جاتے کیلئے مندرجہ ذیل دستاویزات بین

**درکار دستاویزات:**

- \* درخواست دینے والا خود موجود بونا لازمی ہے۔
- \* قومی شناختی کارڈ کی فوتو کاپی۔
- \* اصل قومی شناختی کارڈ۔
- \* پاسپورٹ سائز کی تصویر۔
- \* تعیینی دستاویزات کی کاپی۔

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**E-FIR System**

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### Basic Information

Entry Date	<input type="text" value="mm/dd/yyyy --:-- --"/>	Source of Complain	Online
District	<input type="text" value="Select"/>	Division	<input type="text" value="Select"/>
Circle	<input type="text" value="Select"/>	Police Station	<input type="text" value="Select"/>

### Complaint Information

Complain Number	<input type="text" value="Allocated automatically"/>	CNIC (without dashes)	3740535267707
Name	<input type="text" value="Malik Abdul Rehman"/>	<input type="radio"/> <input type="radio"/> <input type="radio"/> S/O   D/O   W/O	<input type="text"/>
Gender	<input type="text" value="Select"/>	Contact Number	03008337310
Permanent Address			

### Complaint Section

Place of Occurance	<input type="text"/>	Incident Date	<input type="text"/>
Category	<input type="text" value="Select"/>	Offence	<input type="text" value="Select"/>
Incident Details			
Is FIR Registered	<input type="radio"/> <input type="radio"/> Yes   No	FIR No	<input type="text"/>
File 1	<input type="button" value="Choose file"/>	No file chosen	

[Add More](#)

[Cancel](#)

[Submit](#)

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# E-FIR System

Home Online FIR My Applications  

 Hi, Sami Usman  
manimalik@gmail.com  
Citizen 

### Complaints

2 Total	1 Filed	1 Pending	0 Completed
------------	------------	--------------	----------------

Show 10 entries Search:

Other  

Complaint No ↓	Category ↓	Offence ↓	Date ↓	Status ↓	Rating
KC-27/07/2024-947521	Reporting of Crime	Blind Murder	07/27/2024, 10:26 AM	filed	
SM-27/07/2024-674632	Loss Report	Atm Card	07/27/2024, 10:23 AM	pending	

previous 1 next



# E-FIR System

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Welcome, IG Islamabad  
IGIslamabadPolice@gmail.com

SuperAdmin

 Settings ▾

**Complaints**

2  
Total

0  
Filed

2  
Pending

0  
Completed

 Priority Complaints (0)

Show  entries

Search:

 FIR

**Certificates:**

Application No ↓↑	Name ↓↑	Category ↓↑	Date ↓↑	Status ↓↑	Rating
SM-CC- 27/07/2024- 697587	Sami Usman	Character Certificate	07/27/2024, 10:28 AM	Pending	

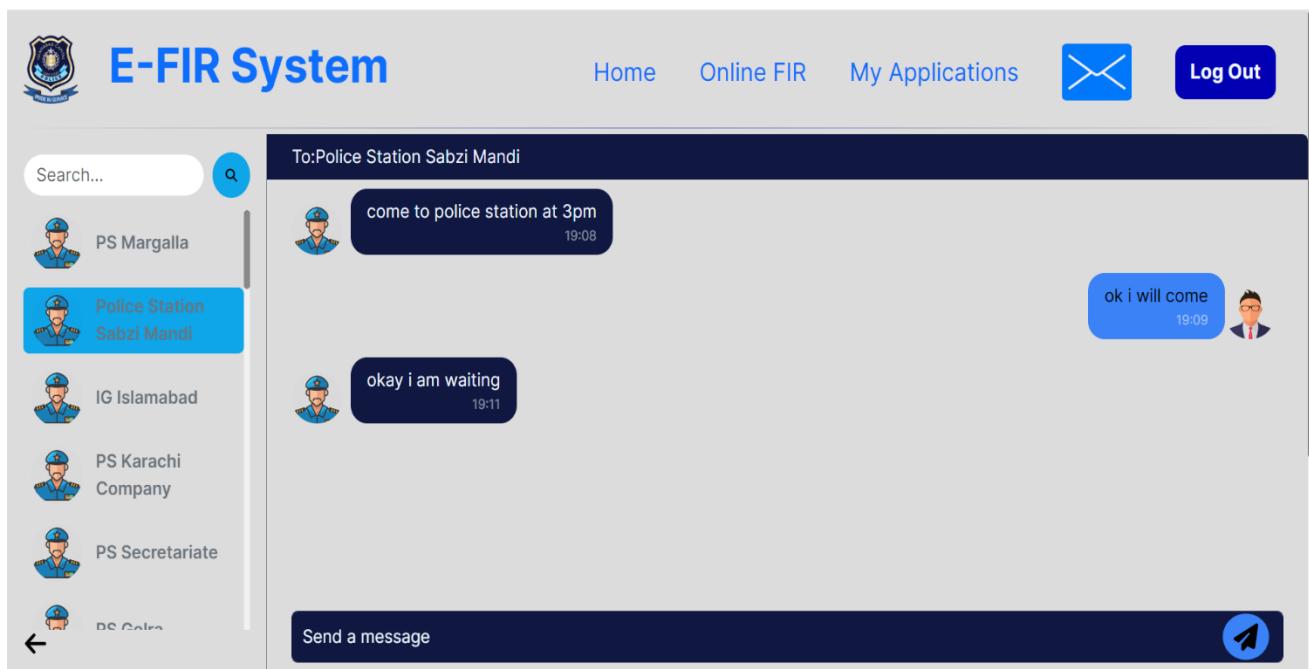
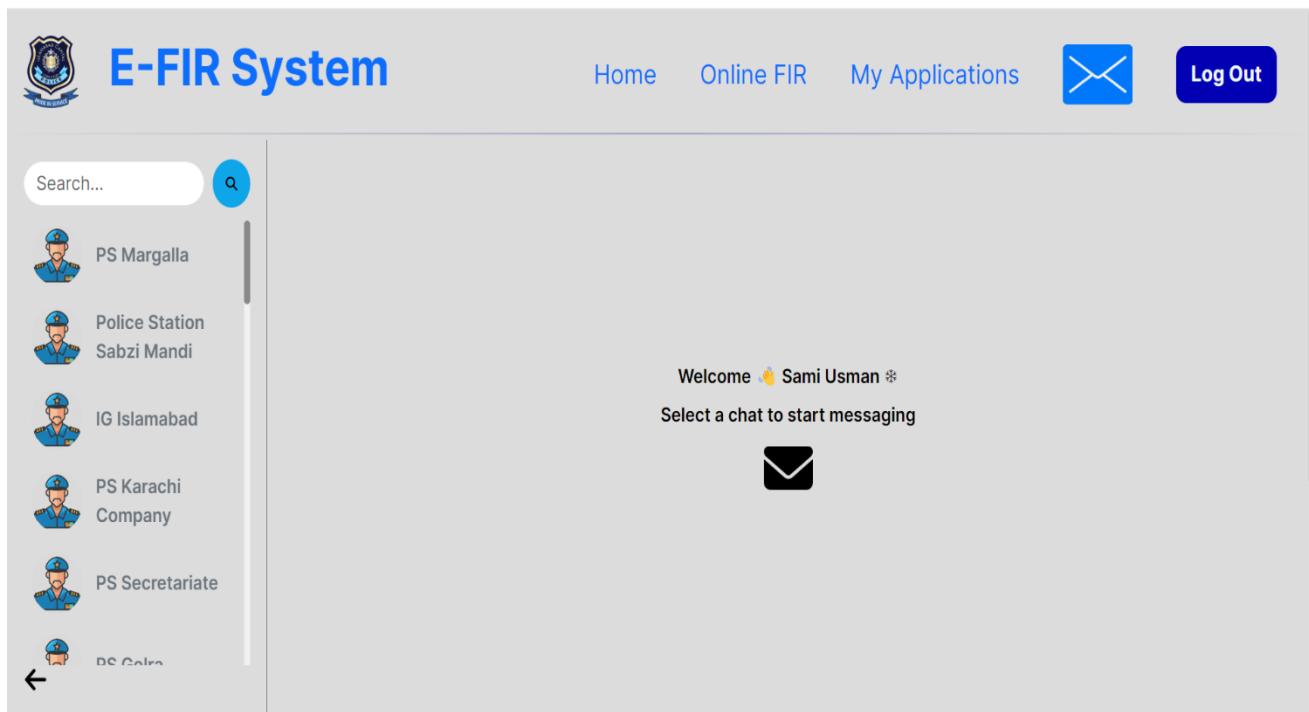
 View Details

**Vehicle Verification Request:**

Request No ↓↑	Registration No ↓↑	Car Maker ↓↑	Date ↓↑	Status ↓↑	Rating
VV-27/07/2024- 931908	RIP456	Honda	07/27/2024, 10:30 AM	Pending	

 View Details



**Search Complaints**

Year 2024	Province Select	District Select
Division Select	Circle Select	Police Station Select
Name <input type="text"/>	Father / Guardian Name <input type="text"/>	CNIC <input type="text"/>
Contact Number <input type="text"/>	Complaint Number <input type="text"/>	Status Pending
<b>Search</b>		

Complaint No ↓↑	Name ↓↑	Mobile No ↓↑	CNIC ↓↑	Category ↓↑	Offence ↓↑	Date ↓↑	Status ↓↑
KC-27/07/2024-947521	Sami Usman	03008337322	3740535267709	Reporting of Crime	Blind Murder	07/27/2024, 10:26 AM	Pending
SM-27/07/2024-	Sami Usman	03008337322	3740535267709	Loss Report	Atm Card	07/27/2024	<b>Priority Complaints (1)</b>

**E-FIR System**

Home    Online FIR    My Applications       Log Out

### Certificate Details

Application No SM-CC-27/07/2024-697587	PS Circle Sabzi Mandi	Give the ratings on the basis of Officer's Investigation:					
		 <input type="button" value="Submit"/> <input type="button" value="Cancel"/>					
		<table border="1"> <thead> <tr> <th>Status</th> <th>Rating</th> </tr> </thead> <tbody> <tr> <td>approved</td> <td>☆☆☆☆☆</td> </tr> </tbody> </table>		Status	Rating	approved	☆☆☆☆☆
Status	Rating						
approved	☆☆☆☆☆						

**Actions**

[View Only](#)   [View PDF](#)   [Download PDF](#)   [Give Rating](#)

### Police Station Information

PoliceStation SHO Name	SHO Mobile Number	PoliceStation Name	PoliceStation Landline Number	Circle Incharge	Circle Incharge Mobile Number	Circle Incharge Landline Number
Sub Inspector	03335287567	Police Station Sabzi	0519334837	DSP Mr Asad Iqbal	03028436662	0519334927

### Add Police Station

Police Station Name Police Station Karachi Com	Police Station Landline Number 0519334091	DPO Name PSP Mr Abdul Aleem
DPO Mobile Number 03008315055	DPO Landline Number 0519246699	DPO Reader Name ASI Sharafat
DPO Reader Mobile Number 0300881416	Circle Officer Name DSP Mr Khalid Mehmood A	Circle Officer Mobile Number 03335777438
Circle Officer Landline Number 0519260786	SHO Name Sub Inspector Naeem ul Ha	SHO Mobile Number 03005135791
Division City	Circle Select	Google Map Location <a href="https://www.google.com/m">https://www.google.com/m</a>
<b>Submit</b>		<b>Priority Complaints (0)</b>

 **E-FIR System**      [Online FIR](#)    [My Applications](#)    [Search](#)        

## Priority Complaints

Complaint No	Name	Phone Number	CNIC	Category	Offence	Date	Status	Actions
KC-27/07/2024-947521	Sami Usman	03008337322	3740535267709	Reporting of Crime	Blind Murder	07/27/2024, 10:26 AM	Pending	   

**Priority Complaints (1)**

## FIR Details

Complaint No	PS Circle	Category	Offence	Date	Status	Rating
SM-27/07/2024-674632	Sabzi Mandi	Loss Report	Atm Card	07/27/2024, 10:23 AM	pending	☆☆☆☆☆

### Actions

[View Only](#) [Edit FIR](#) [Delete FIR](#)

### Police Station Information

PoliceStation SHO Name	SHO Mobile Number	PoliceStation Name	PoliceStation Landline Number	Circle Incharge	Circle Incharge Mobile Number	Circle Incharge Landline Number
Sub Inspector Suleman Shah	03335287567	Police Station Sabzi Mandi	0519334837	DSP Mr Asad Iqbal	03028436662	0519334927

[More Info](#)

Police Form Number: 5-24(1)

Serial Number: 947521



First Information Report refers to cognizable offense reported to the police under section 154 of the Code of Criminal Procedure

FIR Number: 385/24 Police Station: Karachi Company District: Islamabad

E-Tag Number: KC-27/07/2024-947521 Incident Date and Time: 2024-07-17T10:27

1	Entry Date and Time	07/27/2024, 10:26 AM	6	Source of Complaint	Online
2	Name and Details of Victim			Sami Usman son of Malik Afan Address: house no 23, street no 12, h-10, Islamabad CNIC: 3740535267709 Contact Number: 03008337322	
3	Offence and Category			Reporting of Crime of Blind Murder	
4	Place of Incident			h-11	
5	Is any delay in response			Spontaneous response	

Officer Name: Wajahat Ali Rank: P/ASI Officer Number: 03007465543

(Initial informations should be written here)

Most respectfully requested to SHO of Police Station Karachi Company that I am Sami Usman son of Malik Afan lives in house no 23, street no 12, h-10, Islamabad. I requested that a detail story

P/ASI Wajahat Ali

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	<b>ISLAMABAD CAPITAL TERRITORY POLICE</b> <u>Character Certificate</u>											
<p>No. <u>ISB-697587</u> Dated <u>27-07-2024</u>            This is to certify that Mr <u>Sami Usman</u>            son of <u>Malik Afan</u>            CNIC No. <u>3740535267709</u>            Date Of Birth. <u>14-01-1992</u>            having place &amp; Period of stay as follows:-</p>												
<b><u>PLACE &amp; PERIOD OF STAY</u></b>												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2" style="width: 40%;">Address</th> <th rowspan="2" style="width: 30%;">Police Station</th> <th colspan="2" style="width: 30%;">Stay Period</th> </tr> <tr> <th style="width: 15%;">From</th> <th style="width: 15%;">To</th> </tr> </thead> <tbody> <tr> <td>house no 23, street no 12, h-10, Islamabad</td> <td>PS Sabzi Mandi</td> <td>28-01-2003</td> <td>To Date</td> </tr> </tbody> </table>			Address	Police Station	Stay Period		From	To	house no 23, street no 12, h-10, Islamabad	PS Sabzi Mandi	28-01-2003	To Date
Address	Police Station	Stay Period										
		From	To									
house no 23, street no 12, h-10, Islamabad	PS Sabzi Mandi	28-01-2003	To Date									
<p>As per available record of Police Station(s), the applicant has:</p> <ul style="list-style-type: none"> <li>• No Criminal Record Found till date</li> </ul>												
<p><b>Note:</b></p> <ul style="list-style-type: none"> <li>• This Certificate may be used for the purpose of:</li> <li>◦ Employment In Pakistan</li> <li>• This Certificate is valid for 180 days from the date of issuance.</li> <li>• This is system generated document and does not require stamp and manual signature.</li> <li>• The authenticity of this document can be verified through QR code.</li> <li>• This verification is based on the information provided by the applicant.</li> <li>• This certificate is not valid for security guard job.</li> </ul>												
 SSP Operations Islamabad Capital Territory Police												
<small> <ul style="list-style-type: none"> <li>• Permanent/Temporary Residence address to be based on data enter by Citizen in E-FIR System and cross verified by CNIC images.</li> <li>• For Feedback: PH No. 0519201522</li> <li>• Email:pkm@islamabadpolice.gov.pk</li> </ul> </small>												

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HELPLINES:

ISLAMABAD POLICE

## **Chapter 7**

## **Conclusion**

## 7.1 Conclusion

In conclusion, the E-FIR system website aims to revolutionize the way law enforcement agencies handle incident reporting and case management. By transitioning from traditional paper-based methods to a fully digital platform, the system significantly enhances efficiency, accuracy, and accessibility. This modern approach not only streamlines the process for citizens to register FIRs, character certificates, and vehicle verification requests but also ensures that these reports are managed effectively by the relevant authorities.

One of the key strengths of the E-FIR system is its role-based access control, which provides tailored functionalities for Citizens, Admins, and SuperAdmins. Citizens can easily submit their reports and track their statuses in real-time, real-time communication with admin of police station while Admins and SuperAdmins have the tools necessary to manage and process these reports efficiently. This segregation of roles helps maintain data security and ensures that each user interacts with the system in a manner appropriate to their responsibilities.

Moreover, the E-FIR system incorporates advanced features such as email notifications, user ratings, and dynamic reporting. These functionalities not only enhance user engagement and satisfaction but also promote transparency and accountability within the law enforcement process. The ability to generate detailed reports in PDF format and perform comprehensive searches and filters further empowers users to access and analyze information as needed.

Overall, the E-FIR system represents a significant advancement in public safety and law enforcement technology. By leveraging digital tools and modern web technologies, the system improves the responsiveness, efficiency, and transparency of law enforcement agencies. This innovative approach fosters greater public trust and confidence in the justice system, ultimately contributing to a safer and more secure society.

## 7.2 Future of system

The future of my E-FIR website looks promising, with several exciting enhancements and developments on the horizon. Here are some key aspects of the system's future:

- **Integration of AI and Machine Learning:**

I plan to integrate AI and machine learning algorithms into my system to improve the overall user experience. This could include advanced detection of current user location and find nearest police station accordingly, personalized recommendations based on the case of citizen, and predict chances for approval of FIR.

- **Chatbots Integration:**

Incorporating chatbots into the E-FIR system will greatly enhance user interaction and support. These AI-powered chatbots can assist users with common queries, guide them through the FIR submission process, and provide real-time updates on their case status. By offering 24/7 support, chatbots ensure that users can access help and information at any time, reducing the workload on human support staff and improving overall efficiency.

- **Integration with National Databases:**

Connecting the E-FIR system with national databases and other law enforcement agencies can provide a more comprehensive view of criminal activities and streamline the investigation process. This integration will allow for real-time data sharing and collaboration among different agencies, leading to more efficient and effective law enforcement operations. Real-time data sharing accelerates investigations. When an FIR is filed, the system can instantly cross-reference suspect details, modus operandi, and criminal records. Detectives can swiftly connect the dots, leading to quicker arrests and case resolution.

- **Enhanced Security Measures:**

Future enhancements will include advanced security features to protect user data and maintain the integrity of the system. Implementing multi-factor authentication, encryption of sensitive data, and regular security audits will ensure that the E-FIR system remains secure against potential threats. These measures will build user trust and confidence in the system's ability to handle their information securely.

- **Continuous Improvement and Innovation:**

We are committed to continuously improving and innovating our platform to stay ahead of the curve. This includes regularly updating my website with new features and enhancements based on user feedback and industry trends.

- **Blockchain Integration for Immutable Records:**

Consider incorporating blockchain technology into your system. By storing FIR records on a decentralized and tamper-proof ledger, you can ensure the integrity and immutability of case data. Each FIR entry would be cryptographically linked to the previous one, creating a secure chain of custody. This transparency and trustworthiness can enhance the credibility of your system.

- **Automated Case Assignment and Prioritization:**

Implement an intelligent algorithm that automatically assigns cases to relevant officers based on workload, expertise, and proximity. Additionally, prioritize urgent cases (such as missing persons or violent crimes) to ensure swift action. This optimization can streamline case management and improve response times. When a new case arises, the system considers the geographical location of officers. Assigning cases to nearby officers reduces travel time and accelerates response. For instance, a missing person report in a specific area can quickly reach officers patrolling nearby.

### 7.3 References

- [1] <https://react.dev/>
  - [2] <https://youtube.com/playlist?list=PLzpUJVMuGiqLxbBOdvsXReHm41TVlCEJz>
  - [3] <https://youtube.com/playlist?list=PLzpUJVMuGiqltQUkMm8NzT3PRHW0AKn81>
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  - [7] <https://redux-toolkit.js.org/rtk-query/>
  - [8] <https://nodejs.org/en>
  - [9] <https://expressjs.com/>
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