MINI PROJECT – IS2106

Mail Minder - Letter Tracking System

Group 8

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Faculty of Computing

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1. Introduction

1.1 Purpose

The purpose of this Software Requirement Specification is to innovate a solution for tracking complaint letters within government offices(AGE Office). It will bridges the gap by introducing a comprehensive and user-friendly website that design specially for people who work in government offices.

1.2 Product Scope

The current system on government offices relies on manual paper-based letter tracking methods. The limitations of the current system include letter misplacement, difficulties in locating letters and insufficient documentation of handling processes. Those are highlight the urgent need for a more effective complaint-letter tracking solution.

With MailMinder, office personnel will have access to a website where they can monitor the status of this complaint letters from their computer.

2. Overall Description

2.1 Product Perspective

This letter tracking website helps government workers to keep track of letters by giving each one a unique code and letting them know what's happening with each letter in real time. MailMinder is help to manage this letter system in a more proper way. It would be very helpful for the higher management and the people who work with these subjects. But MailMinder does more than just track letters, it also helps officers to find complain letters easily. That means they don't have to manually search the complain letters physically one by one. They have to enter the letter id and the system will show the responsible complain letter. Also, if they want to see the complain letter again there will be a PDF format file of the complain letter.

2.2 Product Functions

- Can track complaint letters based on their respective dates and the unique codes assigned to each letter
- Empower office employees to manipulate letters
- Facilitate the transfer of information and updates regarding complaint letter status
- Government officers can update the current status of the complain letters
- Complain letters can be find easily by the letter id

2.3 Characteristics

Government Officer

- Can update the complain letter status
- Can choose the complain letters section
- Can hold or reply to the complain letters
- Can find the relevant complain letters when it want

2.4 Operating Environment

Hardware Requirements

- Smartphone
- Computer
- Internet Connection

Software Requirements

- Web Browser (Chrome, Safari etc.)
- GitHub
- Firebase (Database)

2.5 Design and Implementation

Government Officers have full access to manage the complain letters and track the letters with letter id.

3. System Features

3.1 Depth of analysis

MailMinder the letter tracking system is using different tools and softwares for system development. This analysis include a wide range of the system requirements and designs.

3.2 Use Case

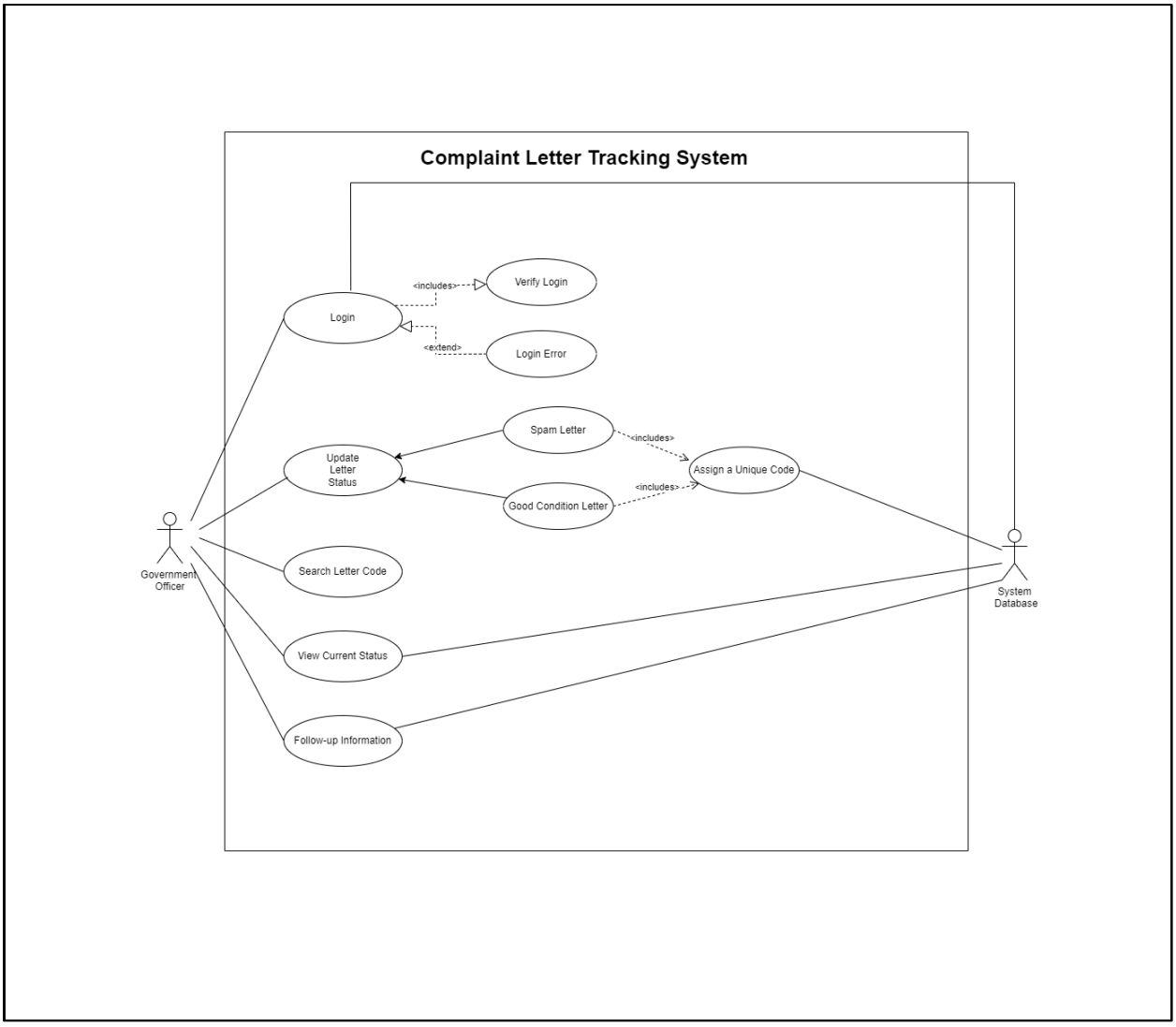


Figure 1

3.3 ER Diagram

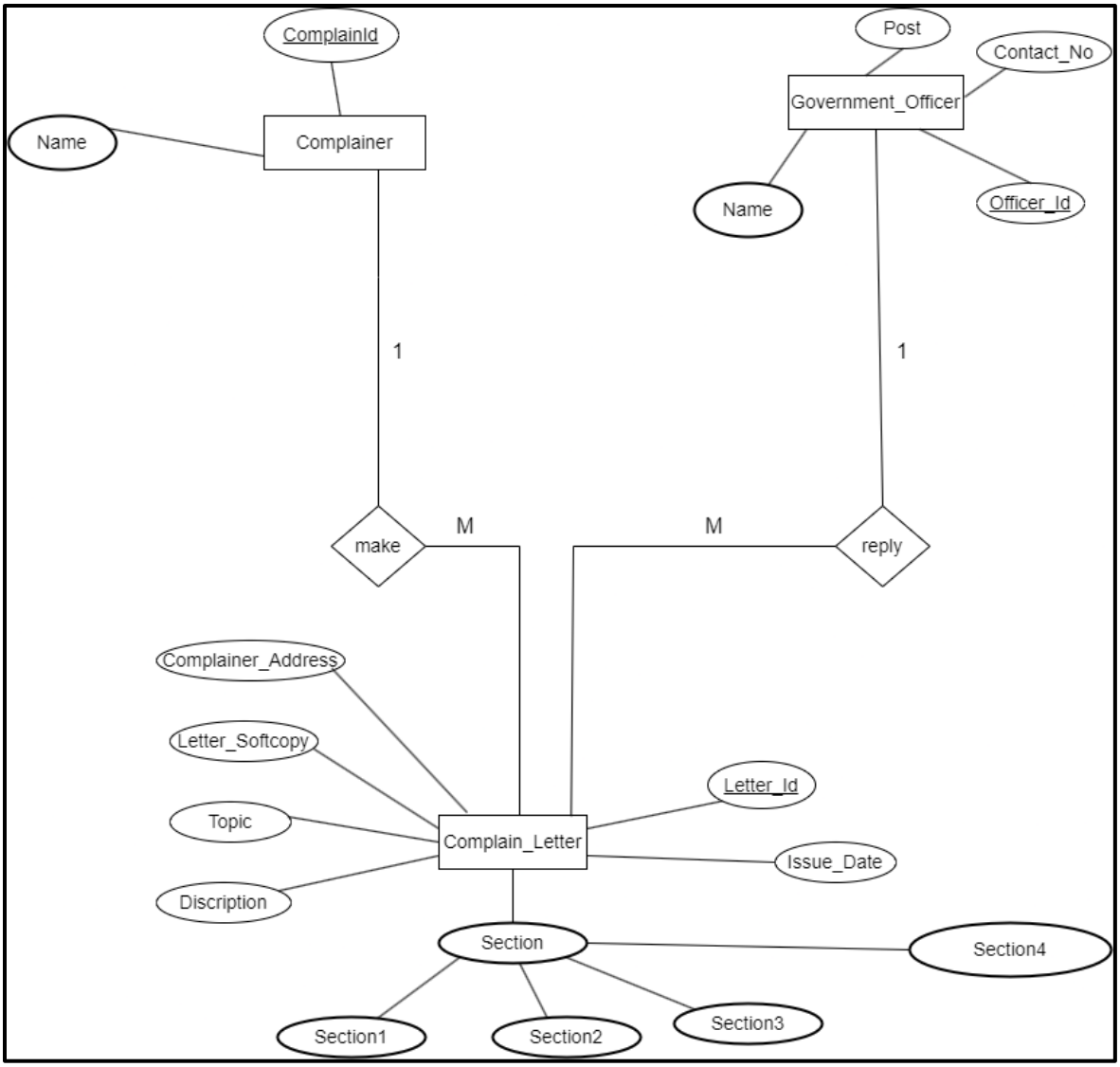


Figure 2

3.4 Functional Requirements

1. **Login to the System**

- Only authorized government officers can login to the system and access information.
- Officials can login with a valid username and password.
- Also there is possibly additional security measures such as two-factor authentication.

2. **Assign Unique Code**

- Officers generate a unique code for each complaint letter.
- It is used as a tracking pattern.

3. **Track Letter Journey**

- System maintains a centralized database to track any complaint letters.
- It date of submission, current status of letter, officer who assigned the letter, department which is responsible for the letter and if any updates or actions taken.

4. **Update Letter Status**

- Authorized officials can update the situation of complaint letters in different stages.
- officials can mark the letter as spam letter or good condition letter with the date.

5. **View Letter Information**

- Officials who has permissions can view the information of complaint letter in detail.
- Information is shown the sender's identity, the contents of the letter, date of issue, assigned officer, current situation, what actions taken.

3.5 Non-Functional Requirements

1. **Usability**

- System has user friendly interface with clear navigation and also easily access to features.

2. **Performance**

- The system able to handle a high amount of complaint letters efficiently
- System has fast responsive time, update and receive information.
- System is monitored regularly to identify the performance issues.

3. **Reliability**

- The system is reliable and available for use at all times.
- It has lower downtime for maintenance or upgrades.

4. **Security**

- The system has high security measures to protect sensitive information.
- It also prevent unauthorized access.
- This includes encryption of data, strong authentication mechanisms, access controls and regular security audits.

5. **Scalability**

- The system designed to scale horizontally or vertically to accommodate increases in workload or user traffic.
- This involves optimizing database performance.

6. **Data Integrity**

- The system maintain the integrity and accuracy of the data stored in it.
- This includes implementing data validation checks, ensuring data consistency across different modules and regular data backups to prevent data loss.

3.5 User Table

User(Government Officer) Table

Officer Id(Primary Key)

Attribute	Data Type	Description
Officer_Id	INT(15)	Government Officer Id
Name	VARCHAR(200)	Government Officer Name
Post	VARCHAR(200)	Government Officer Post
Contact_No	INT(10)	Government Officer Contact Number

Table 1

Complain Letter Table

Letter Id(Primary Key)

Attribute	Data Type	Discription
Letter_Id	INT(15)	Letter Code
Section	VARCHAR(100)	The Section Complain Letter Related To
Issue_Date	DATE	Complain Letter Issue Date
Complainer_Address	VARCHAR(200)	Address Of The Complainer
Topic	VARCHAR(250)	Topic Of The Letter
Discription	VARCHAR(250)	Additional Details Of The Letter

Table 2

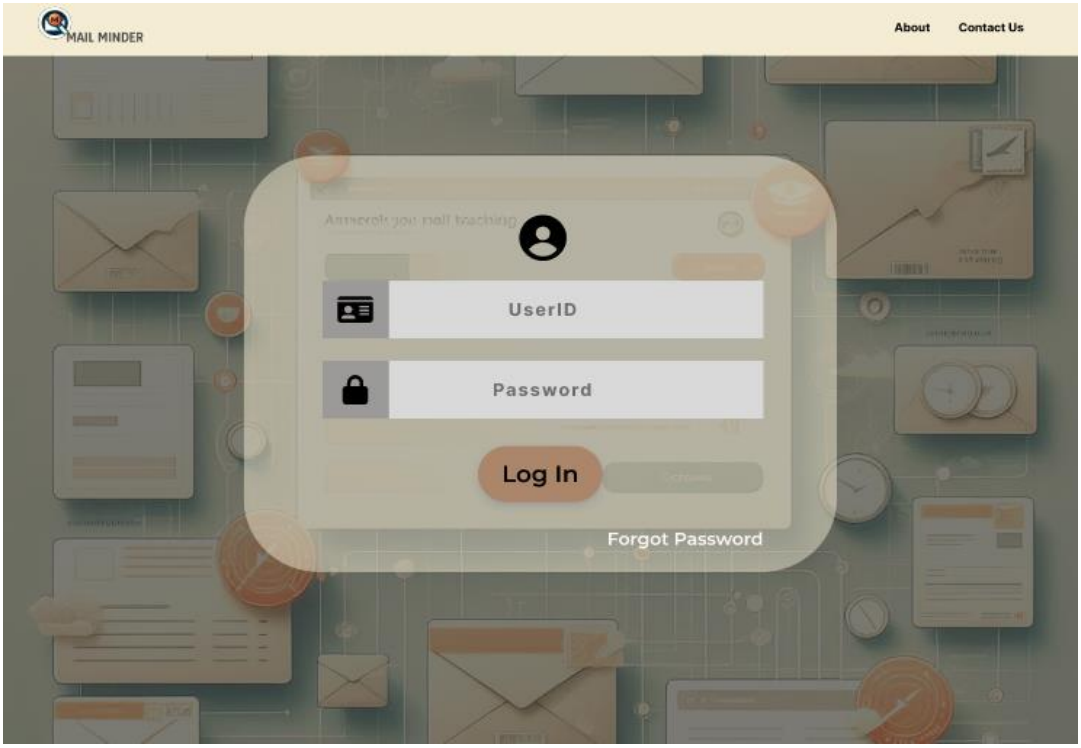
Complainer

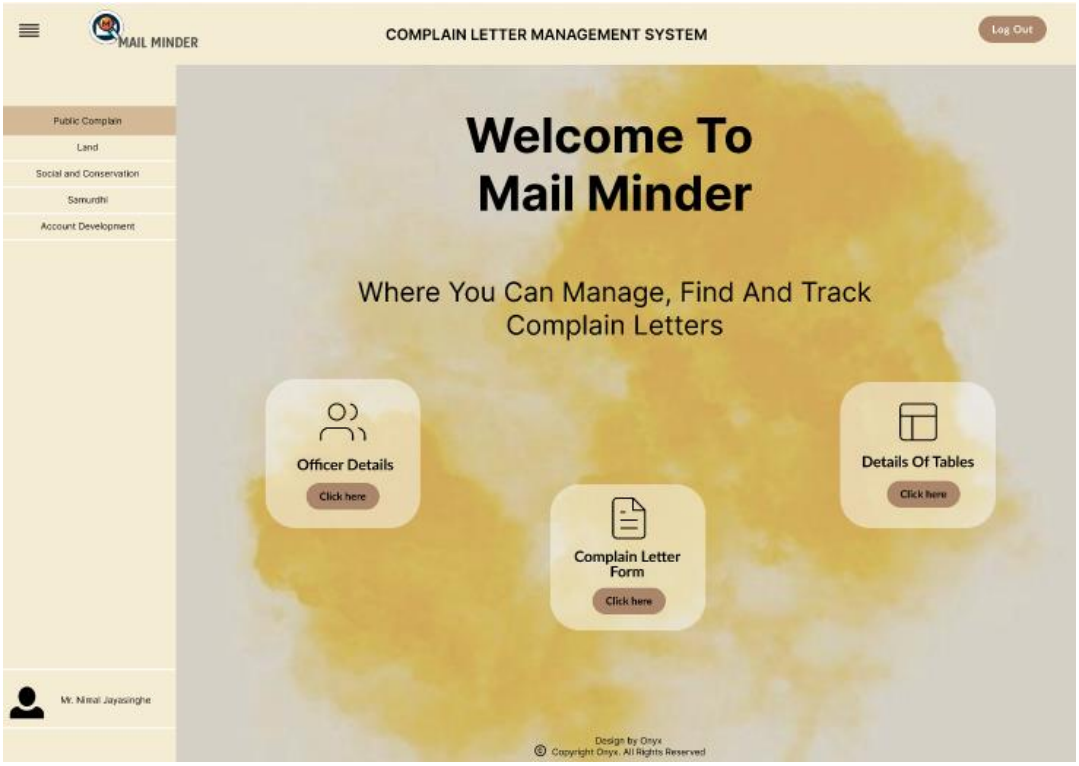
ComplainId (Primary Key)

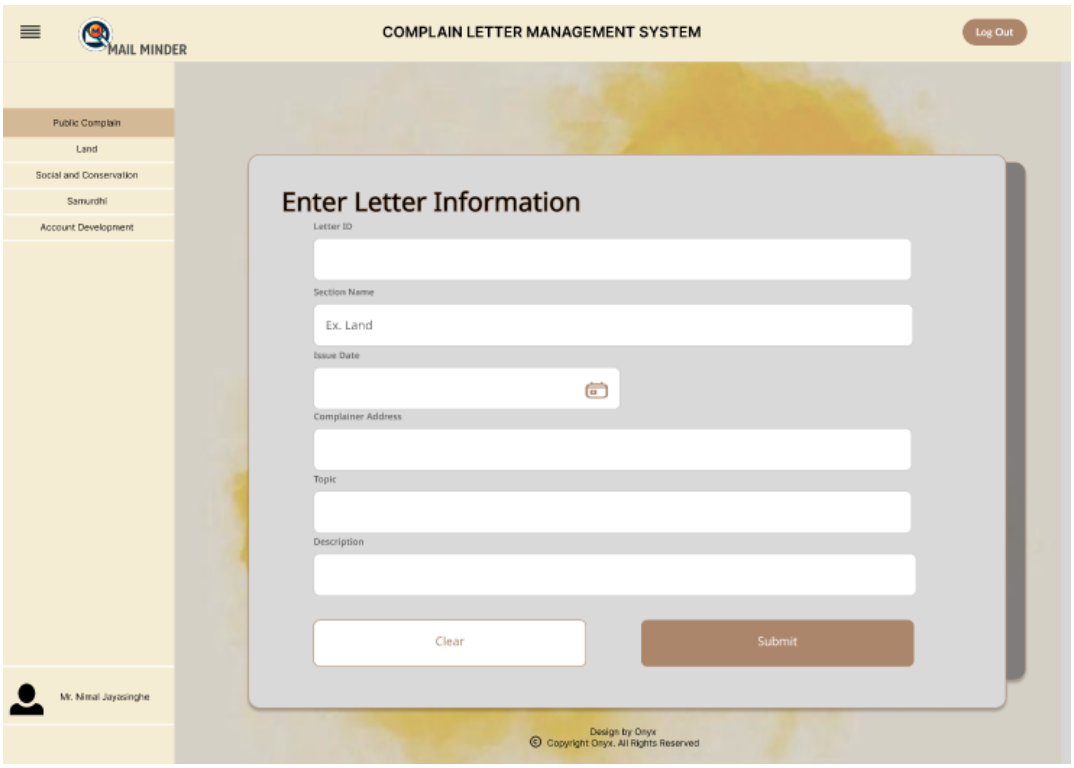
Attribute	Data Type	Discription
ComplainId	INT(15)	Complain Letter Identification Number
Name	VARCHAR(100)	Name Of The Complainer

Table 3

4. UI\UX Design



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COMPLAIN LETTER MANAGEMENT SYSTEM
Log Out
Public Complain
Land
Social and Conservation
Samurdhi
Account Development
Enter Letter Information
Letter ID
Section Name
Ex. Land
Issue Date
Complainer Address
Topic
Description
Clear
Submit
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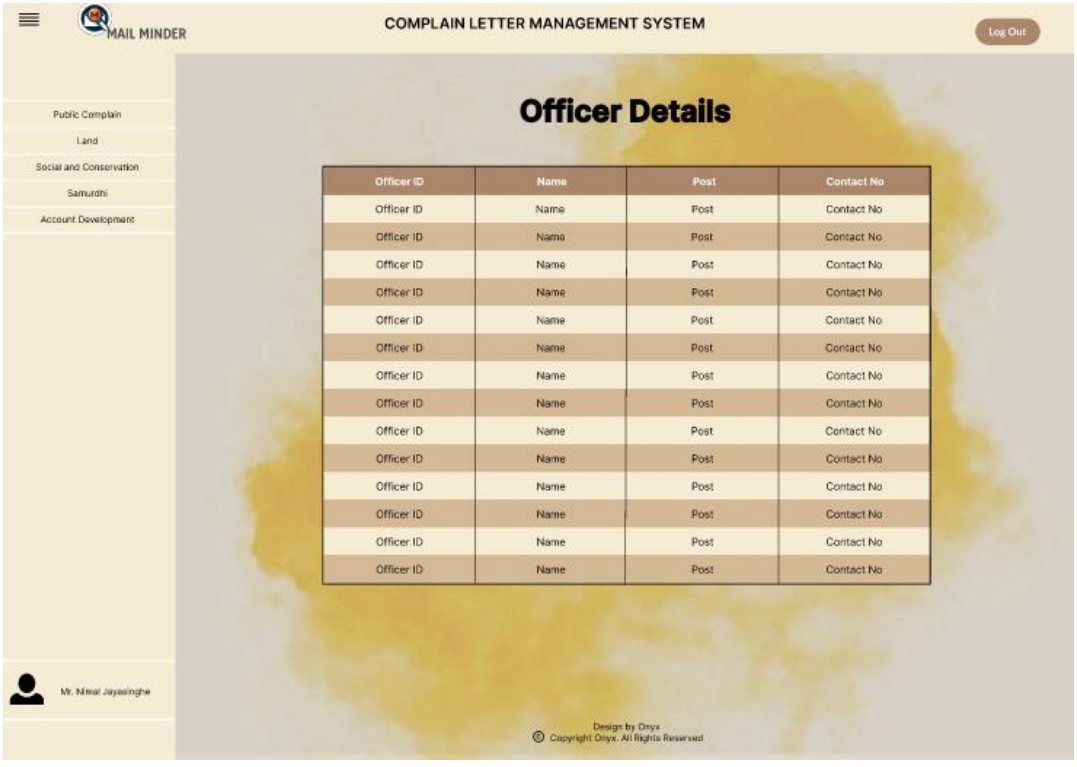
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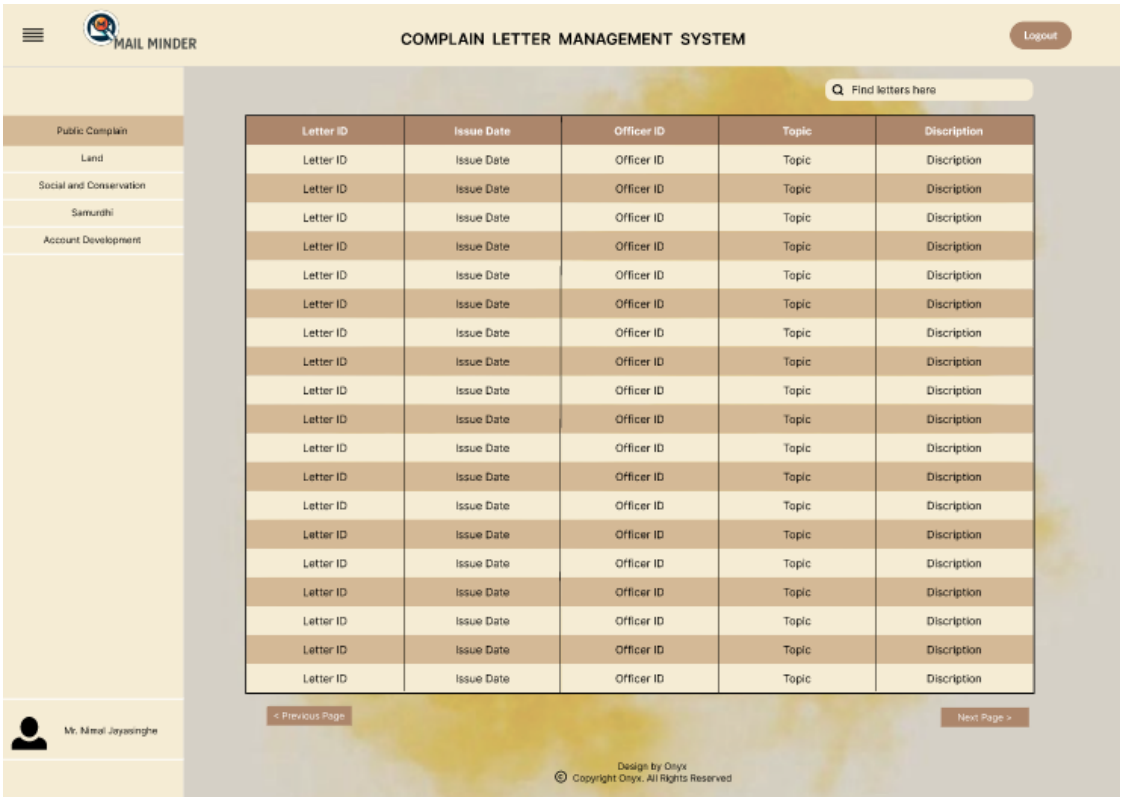
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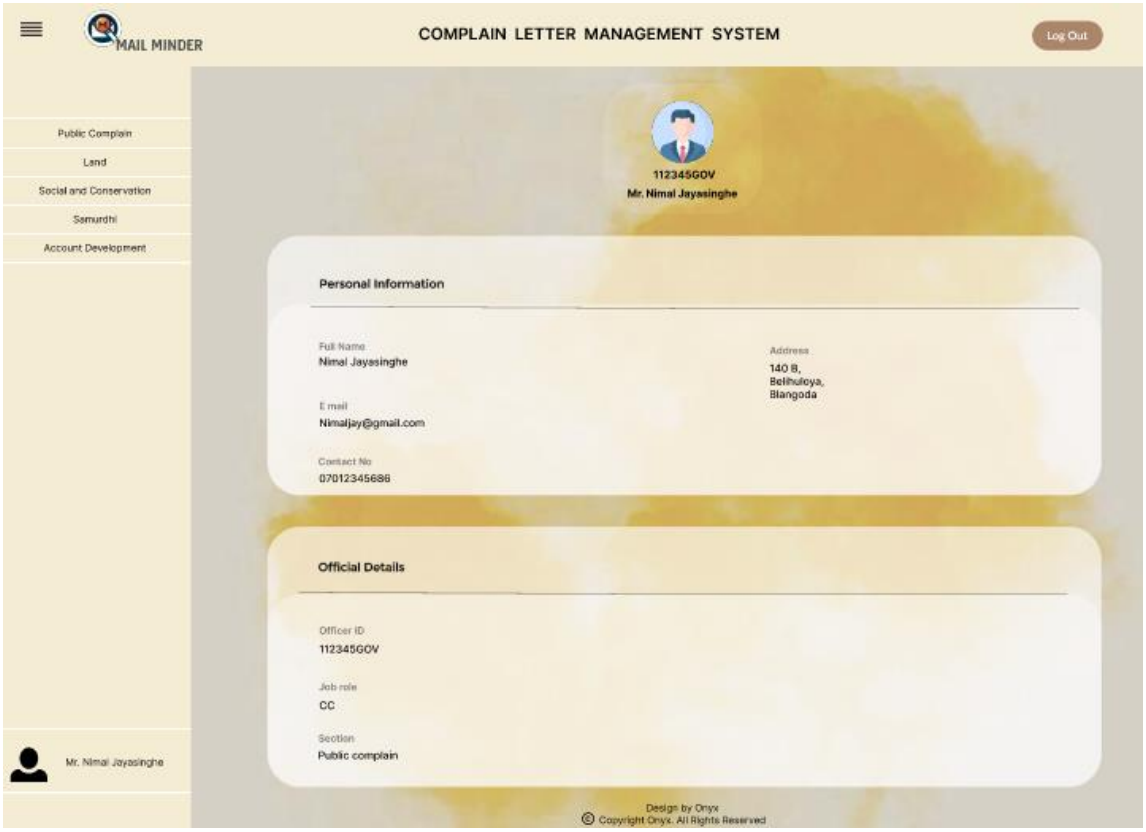
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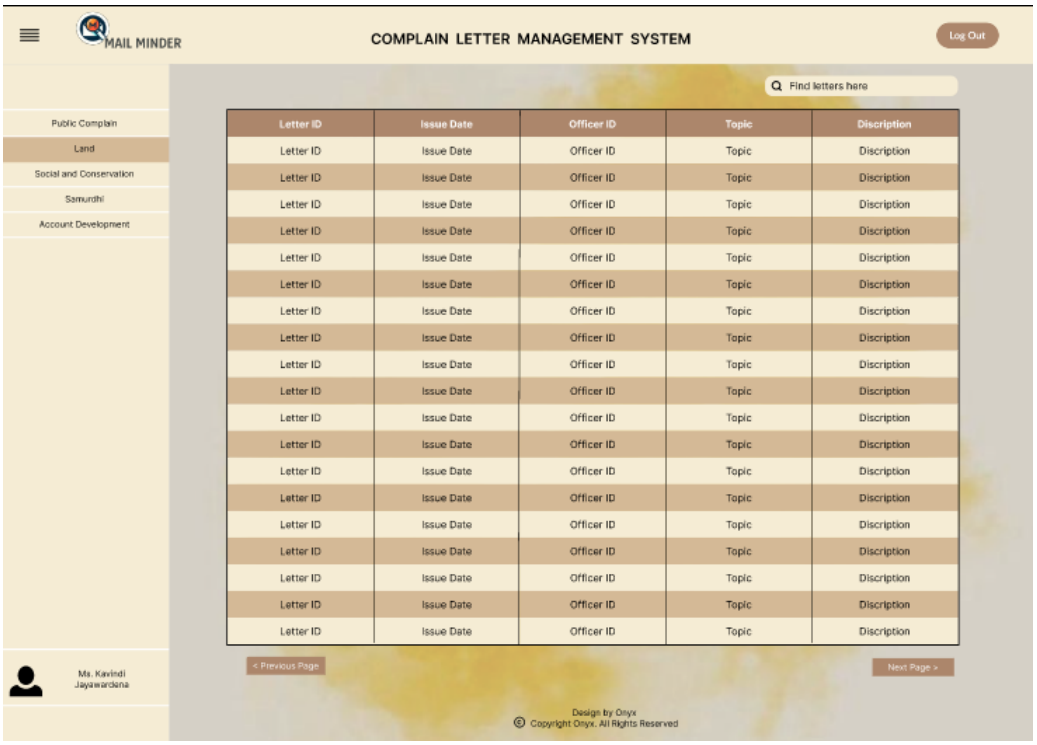
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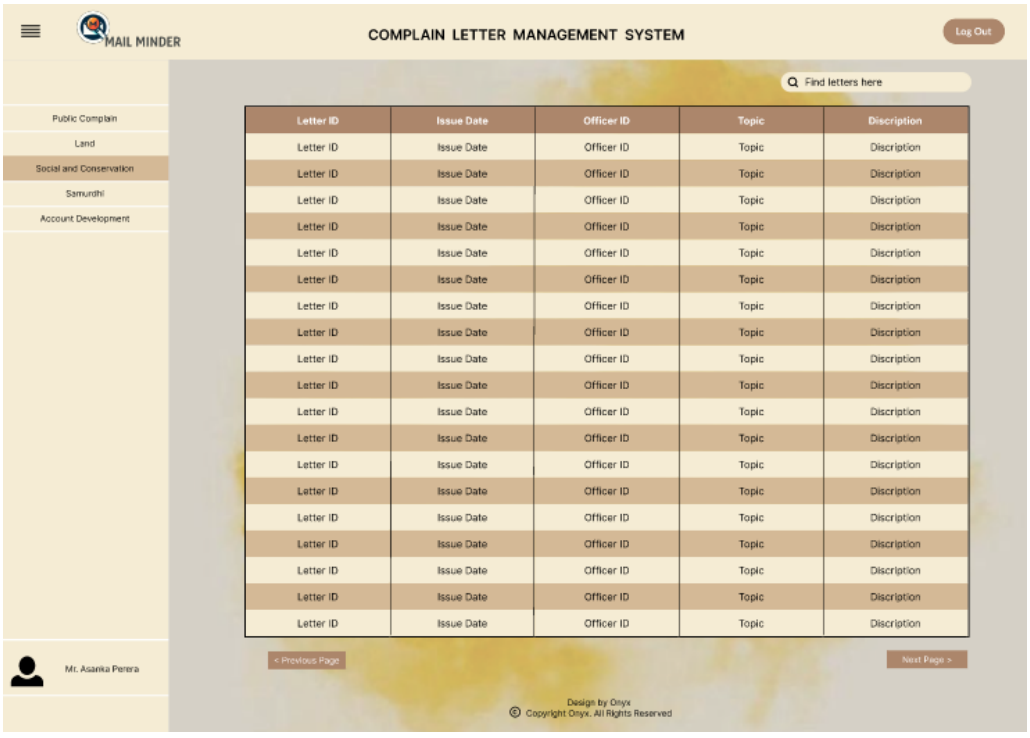
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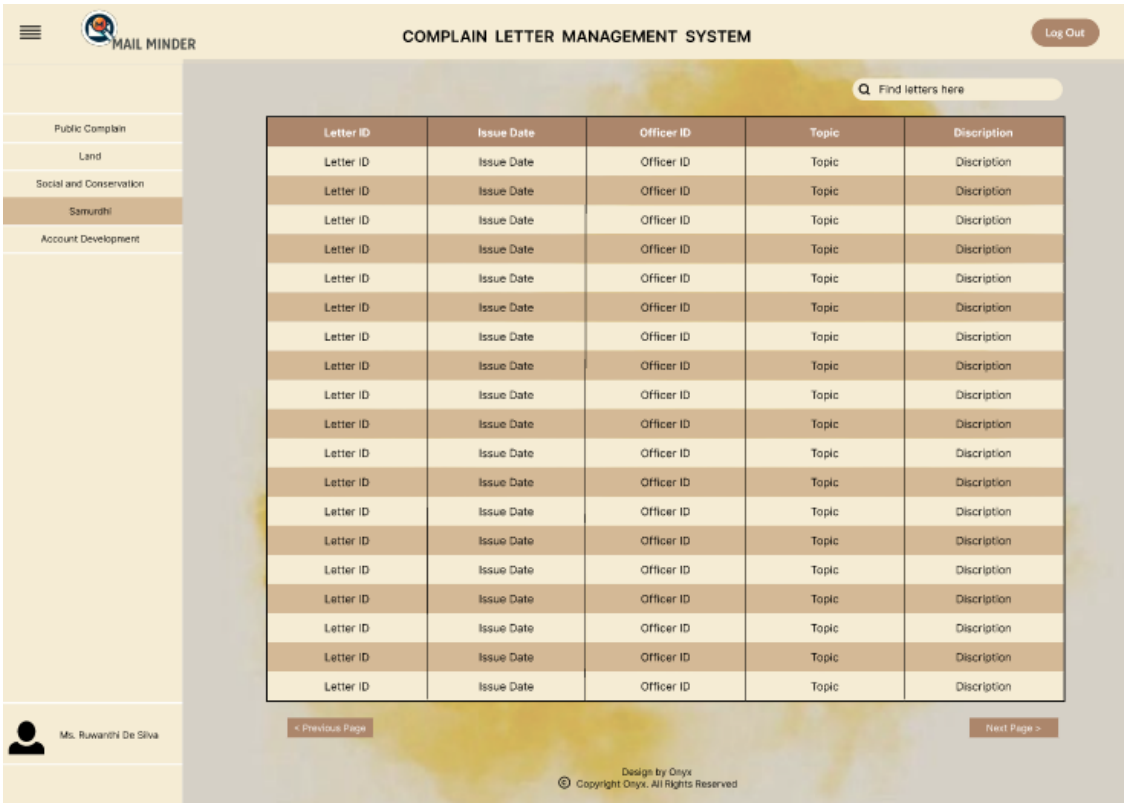
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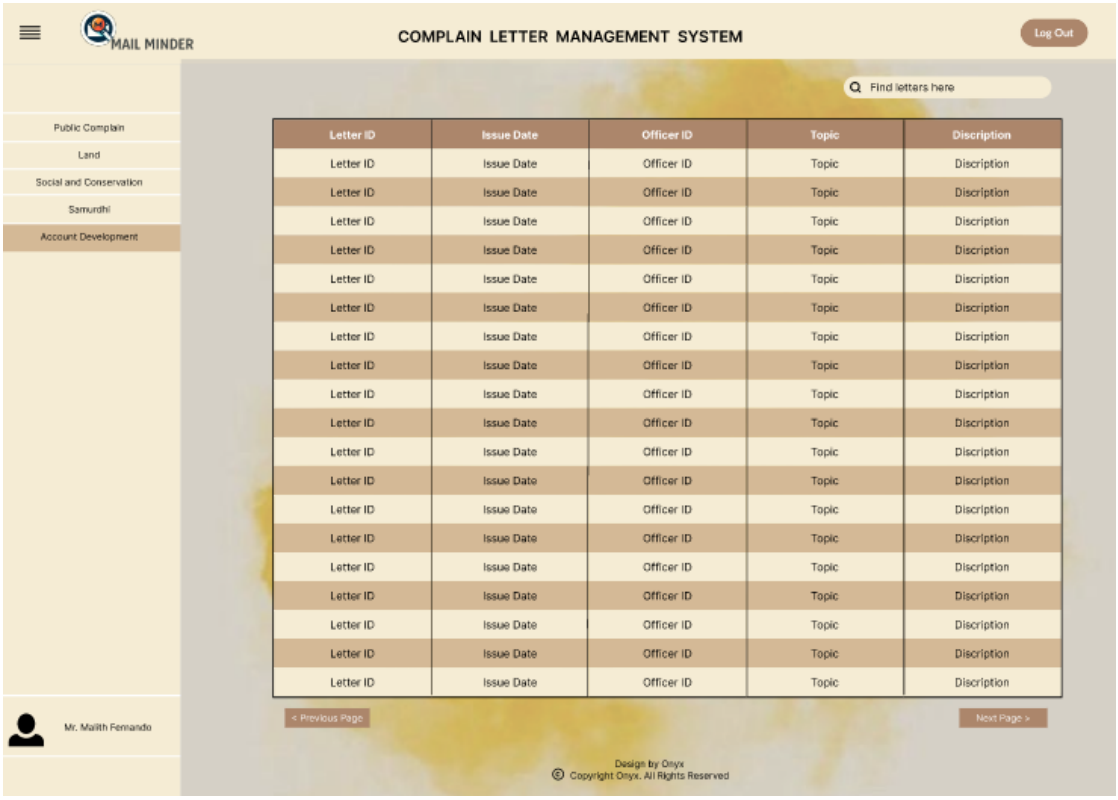
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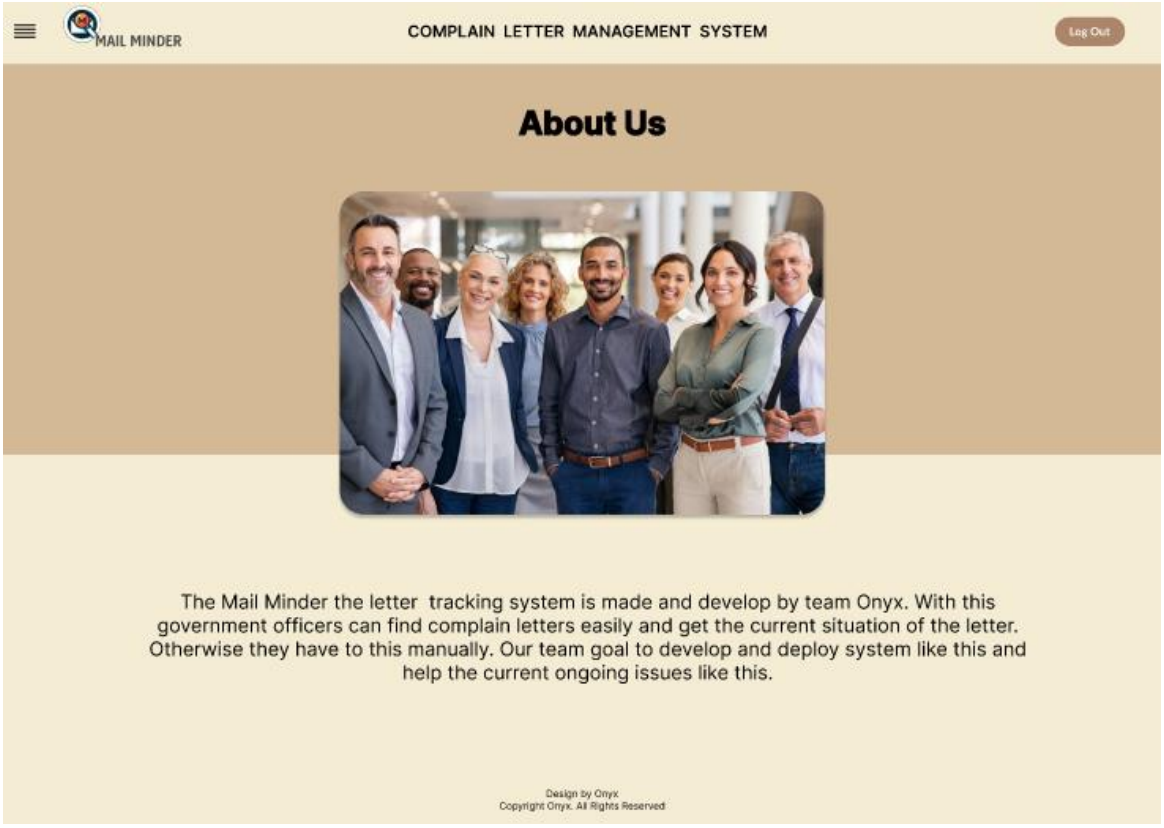
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About Us
The Mail Minder the letter tracking system is made and develop by team Onyx. With this government officers can find complain letters easily and get the current situation of the letter. Otherwise they have to this manually. Our team goal to develop and deploy system like this and help the current ongoing issues like this.
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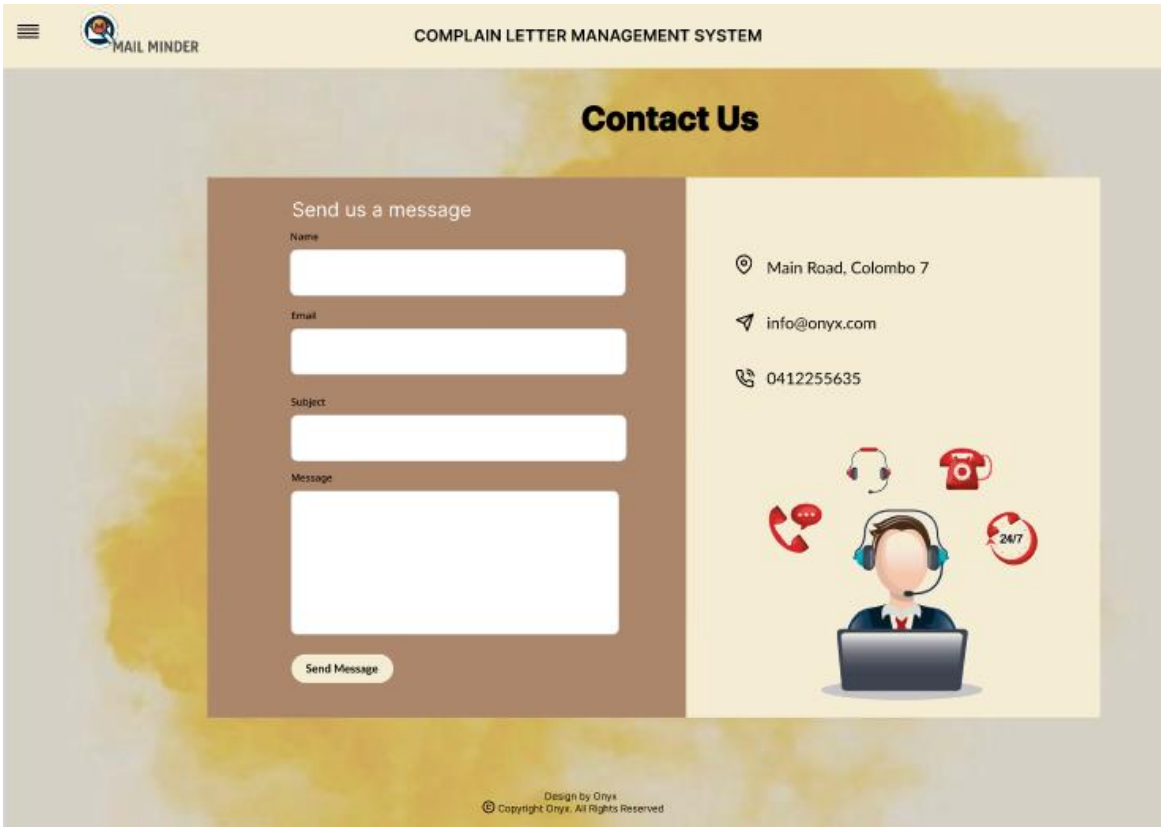
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