

City University Lost And Found Portal

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A project report submitted in partial fulfillment of the requirements for the degree of
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DECLARATION

This is to certify that the project titled “**CULFP: City University Lost And Found Portal**” is the result of our study in partial fulfillment of the B.Sc. Engineering degree under the supervision of **Mehedi Hasan**, Lecturer, Department of Computer Science and Engineering (CSE), City University, Bangladesh. It is also hereby declared that this project or any part of it has not been submitted elsewhere for the award of any degree.

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ABSTRACT

This project report focuses on the conceptualization, design, and implementation of the "City University Lost and Found Portal," a web-based platform created to streamline the process of reporting, locating, and retrieving lost or found items on the university campus. Traditional lost-and-found systems often rely on manual processes, such as physical logbooks or bulletin boards, which are not only time-consuming but also prone to inefficiencies. This project aims to address these issues by providing a centralized digital solution that enhances accessibility, convenience, and user satisfaction. The "City University Lost and Found Portal" is designed to cater to students, faculty, and staff, offering an intuitive and user-friendly interface that ensures seamless interaction for users with varying levels of technical expertise. Key features of the platform include a secure login system that protects user data and activity, a categorized search functionality that allows users to filter items by type, date, or location, and real-time updates to notify users about changes in the status of their reports. These features significantly improve the speed and efficiency of the lost-and-found process. The portal is built using modern web development technologies, ensuring a robust, scalable, and responsive system. It adopts a modular approach to development, which allows for future enhancements and the integration of additional features as the needs of the university community evolve. The backend system prioritizes data security and user privacy, leveraging encryption and authentication mechanisms to protect sensitive information. Additionally, the platform's frontend interface is optimized for both desktop and mobile devices, enabling users to access the portal conveniently from anywhere. One of the key highlights of the project is the notification system, which keeps users informed about updates related to their reports. For instance, when a lost item is found or claimed, the system immediately notifies the concerned user, reducing delays and ensuring prompt action. Furthermore, the portal's categorical organization simplifies the process of browsing or reporting items, ensuring that users can quickly find relevant information without confusion. The implementation of the "City University Lost and Found Portal" demonstrates the potential of web-based solutions in enhancing campus resource management and operational efficiency. By transitioning from traditional methods to a digital system, the university can foster a more organized, responsive, and connected environment. This project not only solves a pressing campus issue but also serves as a model for similar institutions seeking to modernize their services through technology.

Keywords: Lost-and-found portal, digital transformation, web-based platform, user-friendly interface, secure login system, categorized search, real-time updates, notification system, resource management, campus environment.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

The City University Lost and Found Portal is a web-based application designed to assist the City University community in managing lost and found items more efficiently. This platform allows students, faculty, and staff to report items they've either lost or found within the campus. It provides a user-friendly interface for listing items with descriptions, photos, and relevant contact information, ensuring an organized and easily searchable database for users.

The core objective of this project is to minimize the inconvenience caused by lost items, reduce recovery time, and foster a sense of community accountability. By centralizing information about lost and found items, the portal streamlines the recovery process and offers a reliable solution that addresses a significant campus need. Additionally, this digital solution eliminates the reliance on physical notice boards or informal social media groups, providing a secure and official platform that is accessible and usable by all members of the university.

Our report will cover the portal's design architecture, key functionalities, user experience considerations, and implementation strategies. Through this project, we aim to demonstrate how technology can enhance everyday campus life by providing a structured, collaborative approach to solving common issues.

Through this portal, users can report lost or found items, browse existing listings, and connect directly with the concerned parties. Features such as real-time updates, categorization of items, and detailed search functionality ensure that users can quickly locate the items they have lost or provide information about items they have found. Furthermore, the portal incorporates robust security and privacy measures to safeguard user data and ensure a trustworthy experience.

The development of this project not only addresses a critical need within our university but also demonstrates our technical expertise and commitment to solving real-world problems. By integrating advanced tools and adhering to best practices in web development, the City University Lost and Found Portal serves as a testament to our skills in creating practical and impactful digital solutions.

1.2 Purpose of the Project

1.2.1 The User Business or Background of the Project Effort

Lost & Found web portal gives user the facility to get any lost thing or return any found thing by just making post on our portal. By using our application user can search thing by location or category. User can get reward by returning any lost thing. User can see how many lost posts and found posts are there in our application. [1]

1.2.2 Benefits & Beneficiaries

This proposed system intends to return any thing. Generally, user just register once and anytime he/she can login and create lost or found post. User get lost thing hand to hand through our service.

This main advantage is user can get lost thing by just searching it on our website. User can search multiple things on our website. User can create multiple post in our application. User can create post on found and lost both.

Using lost & found web portal will be beneficial for almost every individual person of our institution. For keeping the process simple we have listed some of beneficiaries and benefits of this project are given below.

Beneficiaries:

1. People who lost something and searching for.
2. People who found something and want to return.

Benefits:

1. User can easily create lost or found post which will help him as an announcement.
2. Application will show latest post automatically on the top. User will get reward. [2]

1.2.3 Goals of the Project

Lost & Found web application is aimed at just collecting a lost thing from the founder and return it to the owner. User don't have to physically search that or go to police for making GD. Just create a post and check regularly relevant posts of our application.

1.3 Stakeholders

The Owner

The person who lost something and make post on our application to get that thing back. He is real owner.

The Founder

The holy hearted person who found something and want to return the thing back to genuine owner of that thing.

System admins

The persons who are maintaining the whole system. Priority assigned to Users

- The Owner – HIGH Priority
- The Founder – HIGH Priority. [3]

CHAPTER 2

LITERATURE REVIEW

2.1 Overview

This chapter provides a comprehensive analysis of existing research, technologies, and systems related to lost-and-found portals. The goal is to identify current trends, best practices, and limitations in digital lost-and-found systems, which will guide the development of the City University Lost and Found Portal. Key areas covered include an introduction to lost-and-found systems, a survey of similar platforms, and a background study on the technological and functional elements of these systems. This review will inform design decisions, ensuring the portal is effective, user-friendly, and aligned with industry standards. [4]

2.2 Introduction

Lost-and-found portals are digital platforms designed to assist users in reporting and retrieving lost or found items. These systems are increasingly essential in large organizations, such as universities, where students, faculty, and staff often misplace personal items. By facilitating communication between the finder and the owner, these systems aim to reduce the time and effort involved in recovering lost belongings.

The importance of such systems lies in their ability to provide organized, secure, and accessible data management. The current landscape of lost-and-found solutions includes a variety of web and mobile applications, often equipped with features like item categorization, user authentication, and notification alerts. This section examines the existing systems and outlines the core functionalities and technologies used, setting a foundation for designing a portal specifically for City University. [5]

2.3 Background Study

The development of an effective lost-and-found system requires an understanding of both the technical components and the user needs that drive these systems. This background study explores the technical architecture, functionalities, and challenges that are integral to building a comprehensive lost-and-found platform.

2.3.1 Technical Components:

- Backend Technologies: Lost-and-found systems often utilize frameworks like Django (Python) or Node.js, which support robust database interactions and user management. Databases, such as MySQL or MongoDB, are essential for storing item records, user data, and communication logs.
- Frontend Development: For the frontend, modern lost-and-found systems utilize frameworks like React or Vue.js, which provide interactive and responsive user interfaces. The goal is to create a user experience that allows for easy reporting, searching, and tracking of items.
- Mobile and Push Notifications: Given the need for instant communication, many systems integrate mobile apps and push notification services. Notifications can be triggered when an item is matched or when new information about a lost or found item becomes available.

2.3.2 Functional Elements of Lost-and-Found Systems:

- Item Categorization: Effective lost-and-found systems categorize items (e.g., electronics, clothing, accessories) to make searches easier. These categories help filter search results, allowing users to find items faster.
- User Authentication and Privacy: Systems need secure user logins to prevent misuse and ensure that personal information is protected. Authentication methods, such as OAuth or email verification, are commonly used to secure these systems.
- Reporting and Matching Mechanisms: A significant feature is the reporting mechanism, which enables users to post lost or found items. Some systems use AI or algorithms to match reported lost items with found items, improving retrieval accuracy.

2.3.3 Challenges in Lost-and-Found Systems:

- Data Privacy and Security: Protecting user data is crucial, especially in university settings where personal data, like student IDs or contact information, may be involved. Privacy protocols, such as data encryption, are essential for securing sensitive information.
- User Engagement and Retention: One of the challenges for lost-and-found portals is user engagement. Users are more likely to interact with the platform if it is intuitive and meets their needs efficiently. An appealing design and user-friendly functionality are essential for engagement.
- Scalability and Performance: In high-traffic environments like universities, the portal must be scalable to handle many users and extensive data. Efficient database management and optimization techniques are essential for maintaining performance as user numbers grow. [6]

2.3.4 Comparison Table:

Here's a comprehensive comparison table for the "City University Lost and Found Portal" project, covering various aspects like platform type, features, technologies, challenges, and advantages

Aspect	City University Lost and Found Portal	Facebook Groups	WhatsApp or Telegram Groups	Dedicated Apps (e.g., deliverback.)	Manual Processes (e.g., Notices)
Platform Type	Dedicated web portal with user accounts	Social media groups / pages	Group messaging platforms	Specialized mobile apps	Physical noticeboards or announcements
Accessibility	24/7 access, mobile and desktop-friendly	Limited to social media access	Requires active membership	App-based, mobile-focused	Limited to on-site availability
Search Functionality	Advanced filters (date, item type, etc.)	Basic search via posts/tags	Search limited to recent messages	Advanced filters, image recognition	No search functionality
Notifications	Automated for matched items	Manual or post engagement	Requires manual tagging	Push notifications for matches	No notifications
Authentication	Secure with university credentials	Open access or basic group membership	Open access or phone-based membership	Account creation with identity validation	No authentication
User Interaction	Post, respond to claims, track status	Public comments and reactions	Real-time chat	Structured posting, responses, and tracking	Face-to-face only
Technologies Used	HTML, CSS, JavaScript, PHP, MySQL, APIs	Facebook/Instagram platforms	Messaging APIs, database servers	Mobile app frameworks, machine learning	Paper, pens, and manual labor
Security	Secure data handling and user validation	No control over platform security	Vulnerable to leaks or spam	Encrypted, secure databases	Minimal risks
Challenges	Development, maintenance, user adoption	Dependency on third-party platforms	High noise-to-signal ratio	Development costs and technical expertise	Inefficient and low reach
Advantages	Customized, organized, efficient	Familiar and widely used	Quick communication	Efficient, advanced features, user-friendly	Simple to implement, no tech needed
Cost	Hosting and development costs	Free to use	Free or subscription-based	Subscription fees or free with ads	Printing or material costs

Table 2.3.4: Comparison Table

CHAPTER 3

METHODOLOGY

3.1 Software's And program's Used

The following software's and programs are used in this project-

3.1.1 Front End:

- HTML 5
- CSS 3
- React.js
- JavaScript

3.1.2 Back End:

- Node.js (express.js)
- Mongo DB

3.2 Functional Requirements

- **3.2.1 User Registration and Authentication** - Users (students, faculty, and staff) should be able to register on the portal using their university credentials. Authentication mechanisms to ensure secure login and restrict access to unverified members of the university.
- **3.2.2 Item Reporting** - Lost Item Reporting: Users should be able to report lost items by entering details such as item type, description, date, location, and a contact method. Found Item Reporting: Users should be able to report found items with similar details, enabling potential owners to search and claim these items.
- **3.2.3 Search and Filter Functionality** - Users should be able to search for lost or found items using filters like category (e.g., electronics, personal items), location, and date. A keyword-based search option to make it easier to locate specific items based on description.
- **3.2.4 Item Listings and Details** - A dynamic feed of lost and found items, showing basic information and a link to detailed descriptions. Found items should have additional information on where and how they can be retrieved (e.g., contact info, campus location).
- **3.2.5 Messaging and Notifications** - In-app messaging to facilitate secure communication between item finders and owners. Notifications (in-app or email) for status updates on reported items, such as when a matching found item is listed.

- **3.2.6 Administrative Controls** - An admin panel for authorized university personnel to monitor the system, manage users, and resolve disputes over ownership. Ability to moderate item listings to prevent misuse or spam. [7]

3.3 Non Functional Requirements:

- **3.3.1 Usability** - The interface should be intuitive and easy to navigate for all types of users, with minimal training required. Mobile responsiveness to ensure accessibility on smartphones and tablets.
- **3.3.2 Security and Privacy** - User data, especially contact details, should be stored securely, and access should be restricted to authorized users. Compliance with data privacy regulations, ensuring that personal information is only visible when necessary for item recovery.
- **3.3.3 Performance** - The system should be able to handle high traffic during peak periods (e.g., start and end of semesters). Efficient data retrieval to enable fast loading times for item searches and listings.
- **3.3.4 Reliability and Availability** - The portal should be available 24/7, with minimal downtime. Regular backups of data to prevent loss of information and ensure quick recovery in case of system failures.
- **3.3.5 Scalability** - The system architecture should allow for future expansion, whether in terms of user base, additional features, or new campus locations.
- **3.3.6 Maintainability** - Clear and well-documented codebase to simplify future updates or troubleshooting. Logging of system events to aid in monitoring, debugging, and ensuring accountability. [8]

3.4 Performance Requirements

The performance requirements should ensure the platform is fast, responsive, and capable of handling user interactions efficiently. Here are some key areas to focus on:

- Load Time
- Database Performance
- Search Functionality
- Concurrency and Scalability
- Image Upload and Retrieval Speed
- Responsive Design
- Security and Authentication Speed
- Data Processing and Notifications

3.5 Security Requirements

Security requirements are essential to protect users' data, especially if sensitive information like contact details are involved. Here are the primary security requirements you should consider:

- Login Security
- Data Safety (Encryption)
- Email Verification
- Check User Inputs
- Limit Access for Certain Actions
- Secure Passwords
- Protect Against Hacking Attempts
- Log Out After a While
- Regular Checks and Updates
- Alert Users of Suspicious Activity [9]

3.6 Operational And Environmental Requirements

3.6.1 Operational Requirements:

- **Availability and Uptime** - The portal should be accessible 24/7, with minimal downtime. Users may need to report lost/found items at any time.
- **Backup and Recovery** - Regular data backups should be done daily, with a plan to recover lost data within an hour.
- **User Support** - This helps users troubleshoot issues or get support for posting or finding items.
- **Performance Monitoring** - Regularly monitor system performance (response times, load times) to ensure it meets user expectations.
- **Maintenance** - Schedule periodic maintenance to update the system, apply security patches, and improve features.

3.6.2 Environmental Requirements:

- **Device Compatibility** - Ensure the portal works well on a variety of devices, including desktops, tablets, and smartphones.
- **Internet Connection** - The portal should be optimized to work over various connection speeds, ideally including slow or unstable networks.
- **Browser Compatibility** - The portal should support popular browsers (Chrome, Firefox, Safari, Edge) and different operating systems (Windows, macOS, iOS, Android).
- **Data Storage Environment** - Host the portal on a reliable server with high storage capacity, preferably in a secure cloud environment.
- **Accessibility** - Design the portal to be accessible for users with disabilities (e.g., screen reader compatibility, keyboard navigation). [10]

CHAPTER 4

SYSTEM DESIGN

4.1 Use Case Diagram

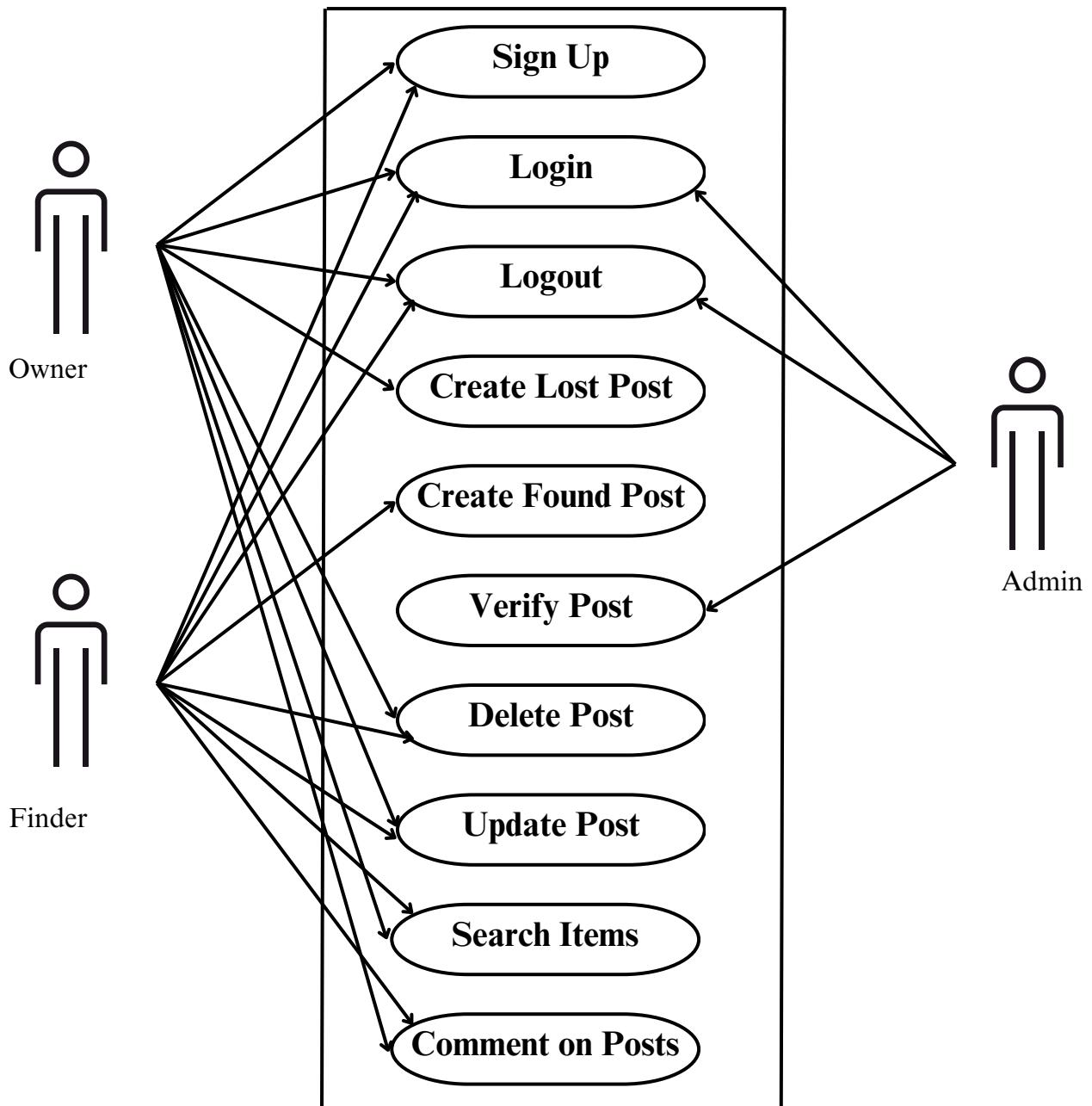


Figure 4.1: Use Case

4.2 Use Case Diagram

A Use Case Diagram in Unified Modeling Language (UML) is a visual representation that illustrates the interactions between users (actors) and a system. It captures the functional requirements of a system, showing how different users engage with various use cases, or specific functionalities, within the system.

4.2.1 Sign up

User have to complete sign up by providing basic information's before login. In sign up form all field must have to fill up and information's must have to be accurate. Sign up details given in table 4.2.1

Use Case Name:	Sign Up Module
Scenario:	User have to sign up to login.
Brief Description:	Without signup user cannot login and access main features of the system.
Actor:	Finder and owner
Precondition:	Must go into sign up page.
Post Condition:	User must have provided all necessary information in the sign-up form.
Main Success Scenario:	<ol style="list-style-type: none">1. Server must have to be working.2. User have to properly fill the signup form.3. Completing sign up user get confirmation message.
Scenario Extensions:	<ol style="list-style-type: none">1. Have fill all fields in the signup form.2. Have to provide proper information otherwise signup can't be complete.

Table 4.2.1: Sign Up

4.2.2 Login

User have to login to obtain all internal features. For login user have to provide user- name and password. Login details given in table 4.2.2

Use Case Name:	User have to login to access main features of the system.
Scenario:	In the system if user want to make post, comment, update and delete post he /she have to login.
Brief Description:	Once a user login he/she can create post, view his post, update and delete his/her post. All this feature is accessible for the login users.
Actor:	Finder, owner, admin
Precondition:	Must Have To Sign in
Post Condition:	User have provided right user name and password.
Main Success Scenario:	<ol style="list-style-type: none">1. Server must have to be working.2. User name and password must be matched.3. After login user get confirmation message.
Scenario Extensions:	<ol style="list-style-type: none">1.Have fill all fields in the signup form.2.Have provide proper information otherwise Signup can't be complete.

Table 4.2.2: Login

4.2.3 Logout

User can logout after successfully login. Logout is only available for user who already logged in into the system. Logout details given in table 4.2.3

Use Case Name:	User can logout after login.
Scenario:	If user want get out of the system, he/she can logout.
Brief Description:	After using the internal features of the system user can logout to make system information safe.
Actor:	Finder, owner, admin
Precondition:	Must have to logged in.
Post Condition:	Logout should be confirmed.
Main Success Scenario:	Get logout confirmation message
Scenario Extensions:	User have to sign up and login if login not confirmed log out cannot be done.

Table 4.2.3: Logout

4.2.4 Create lost post

User can create lost post after login once. Create lost post details given in table 4.2.4

Use Case Name:	User can create lost post after login.
Scenarios:	If user want to make a lost post, he can make it.

Brief Description:	After login user can create a lost post by simply go to post creation section and select lost post.
Actor:	Owner
Precondition:	Must have to logged in.
Post Condition:	Must fill all fields in the form.
Main Success Scenario:	Get post creation successful message.
Scenario Extensions:	If form is properly not filled up post creation cannot be done.

Table 4.2.4: Create Lost Post

4.2.5. Create Found post

User can create found post after completely login. Create Found post details given in table 4.2.5

Use Case Name:	User can create found post after login.
Scenarios:	If user found something, he can make a found post.
Brief Description:	After login user can create found post in by providing all information in the form.
Actor:	Finder

Precondition:	Must have to logged in.
Post Condition:	Must fill all fields in the form.
Main Success Scenario:	Get post creation confirmation message.
Scenario Extensions:	Without valid information post creation cannot be done.

Table 4.2.5: Create Found Post

4.2.6 Verify Post

Admin will verify any lost post or found post that has been created by user. After making a post by the user admin will check all information's. Verify post details given in table 4.2.6

Use Case Name:	Admin can verify posts created by user.
Scenario:	After a lost or found post creation admin will check all the information's.
Brief Description:	When user create posts, he can make mistakes or provide wrong information admin will check all posts.
Actor:	Admin
Precondition:	Admin have to login into the system.
Post Condition:	Posts must have to be available.
Main Success Scenario:	View only valid posts.
Scenario Extensions:	If posts are not available admin cannot verify anything.

Table 4.2.6: Verify Post

4.2.7. Delete post

User can delete previous created posts. Delete post details given in table 4.2.7

Use Case Name:	User can deleteposts that he created before.
Scenario:	Whenever user don't need any post, he can delete that post.
Brief Description:	After getting back a lost thing or found that thing user don't need that post he created in the system so he can delete that post.
Actor:	Owner, Finder, Admin
Precondition:	Have to logged in
Post Condition:	Must have to create a post.
Main Success Scenario:	Never see the deleted post
Scenario Extensions:	If user don't create any post by own, he cannot delete post.

Table 4.2.7: Delete Post

4.2.8 Update Post

User can update a post after creating that post. Update post details given in table 4.2.8

Use Case Name:	User can update previous post.
Scenario:	If user thing he need to change information of a post he created before he can update the post.
Brief Description:	After getting back a lost thing or found that thing user don't need that post he created in the system so he can delete that post.
Actor:	Owner, Finder, Admin
Precondition:	Have to logged in
Post Condition:	Must have to create a post.
Main Success Scenario:	View Updated post.
Scenario Extensions:	User can update only own post.

Table 4.2.8: Update post

4.2.9 Search Post

User can search post in lost and found section separately. Search post details given in table 4.2.9

Use Case Name:	User can search found and lost posts
Scenario:	If user want information of a particular thing he can search with similar words.
Brief Description:	There are so many posts in the system sometimes it's hard to find a particular post so user can search and easily find it.
Actor:	Owner, Finder
Precondition:	Have to search proper keywords
Post Condition:	Post have to be available
Main Success Scenario:	Find easily specific information
Scenario Extensions:	If posts are not available search cannot be done.

Table 4.2.9: Search post

4.2.10 Comment on post Module

User can comment on a post. Comment on post details given in table 4.2.10

Use Case Name:	Commenting on a post
Scenario:	If user want to comment on a post he can
Brief Description:	After getting back a lost thing or found that thing user don't need that post he created in the system so he can delete that post.
Actor:	Owner, Finder
Precondition:	Have to logged in
Post Condition:	Post have to be available.
Main Success Scenario:	Instant comment and reply on a post
Scenario Extensions:	If user not logged in comments cannot be done

Table 4.2.10: Comment on post

4.3 Activity Diagram(Owner, Finder & Admin)

An Activity Diagram is a flowchart that illustrates the flow of control or data within a system. It is particularly useful for modeling the dynamic aspects of a system, such as workflows, processes, or interactions among different roles or entities. The Diagram is given below. [11]

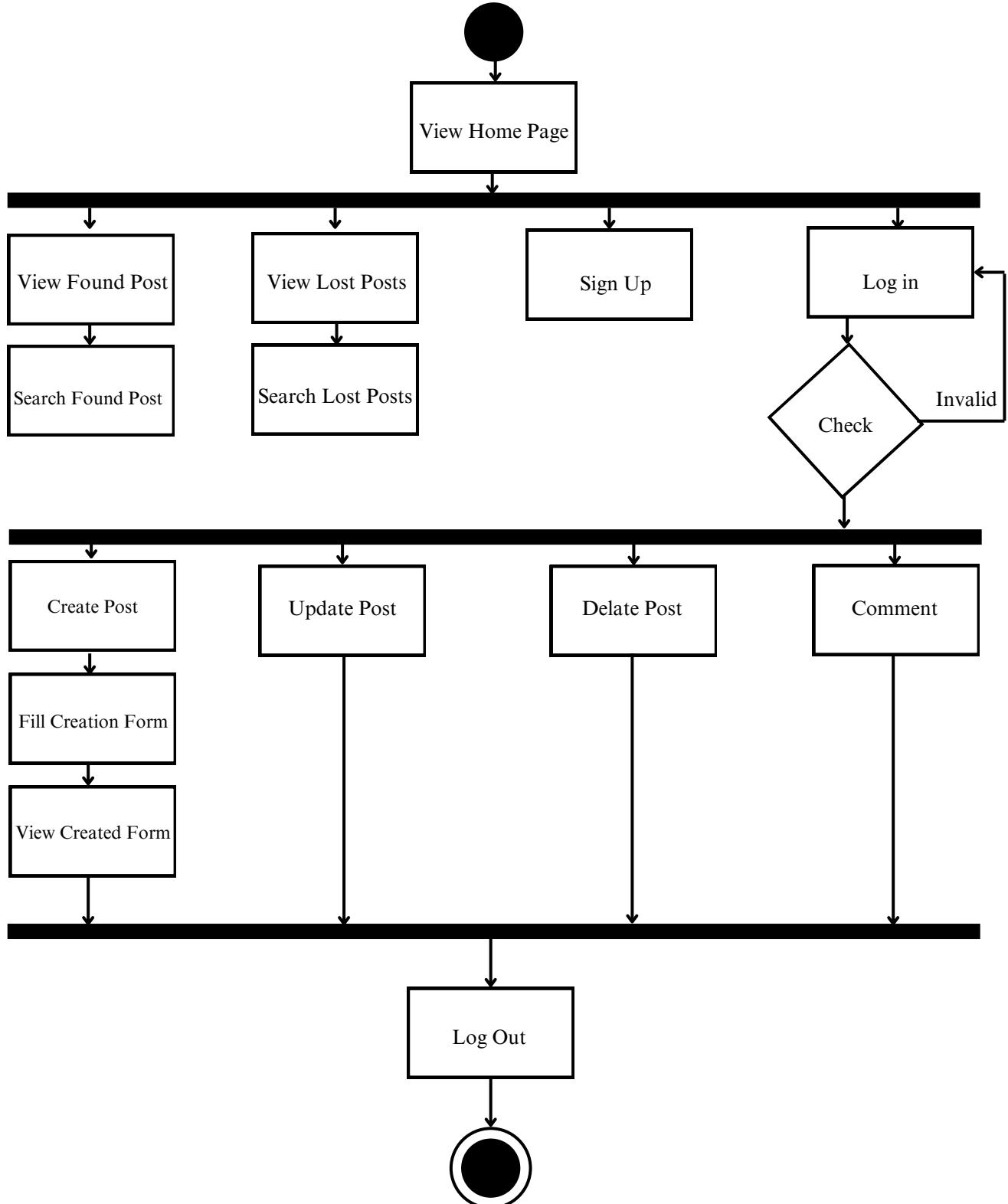


Figure 4.3: Activity Diagram (user's & Admin)

4.3.1 Activity Diagram (Owner & Finder)

Activity diagram for login, CRUD operations, commenting, and logout.

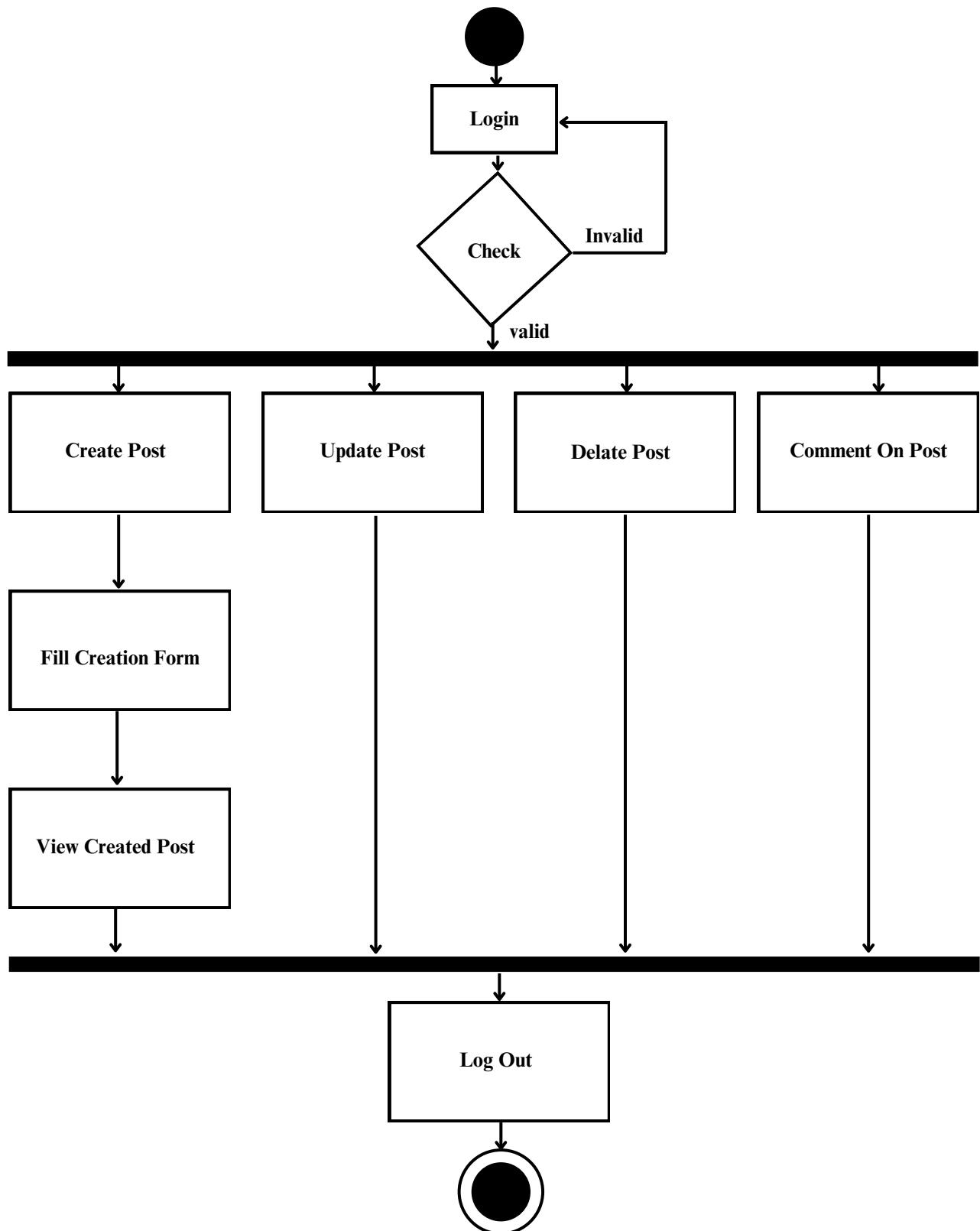


Figure 4.31: Activity Diagram (user's)

4.3.2 Activity Diagram (Admin)

This activity diagram represents the admin's workflow: logging in, validating credentials, and performing actions like verifying posts or responding to users, followed by logging out. It illustrates decision-making between valid and invalid login attempts.

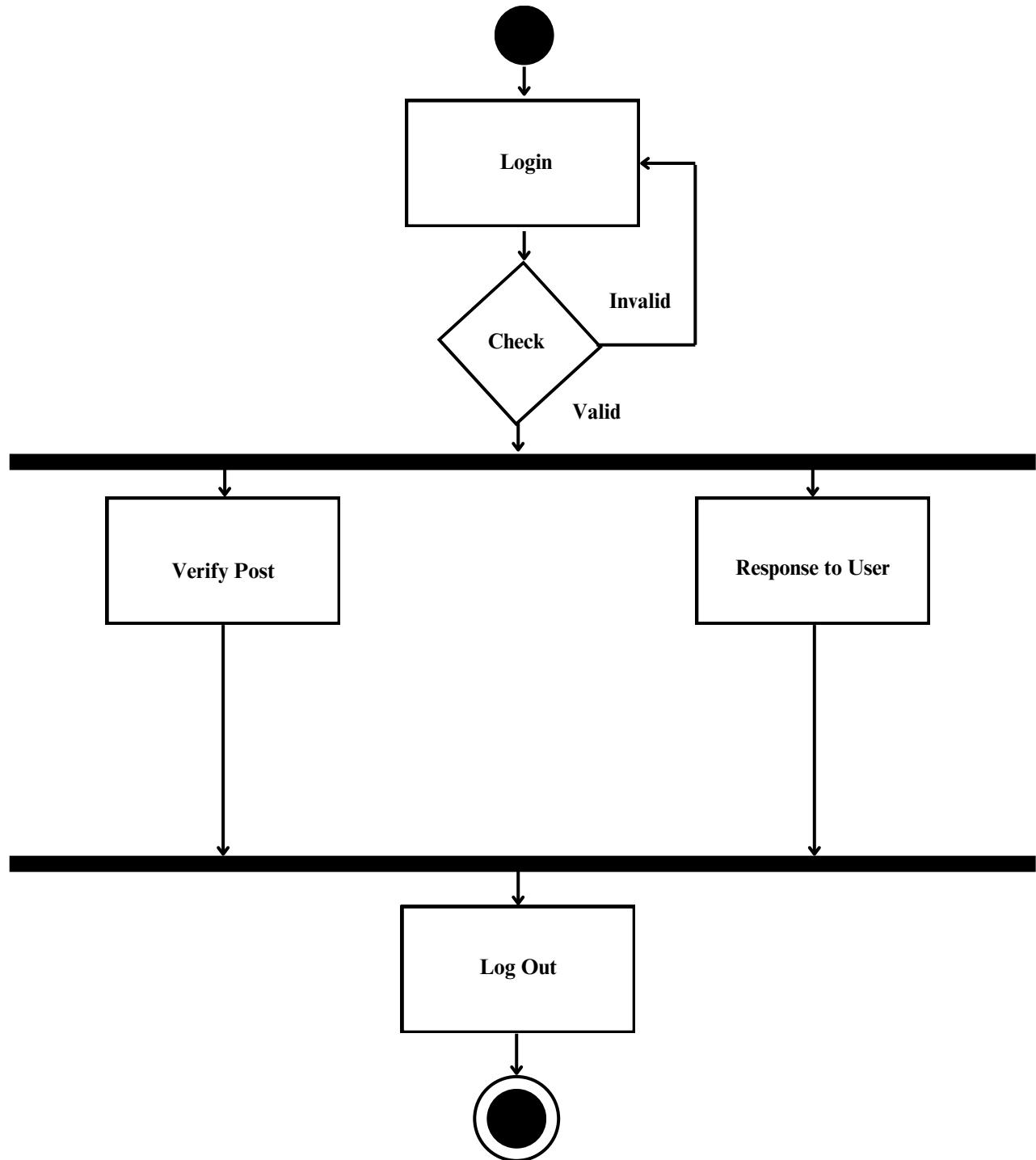


Figure 4.32: Activity Diagram (Admin)

4.4 Sequence Diagram

A Sequence Diagram is a type of diagram in UML (Unified Modeling Language) that models the interaction between objects or components in a system over time. It shows how objects communicate with one another through the exchange of messages, typically in response to some event or function. [12]

4.4.1 Sequence Diagram for Admin Login:

Sequence diagram for admin login is depicted in the form of diagram below.

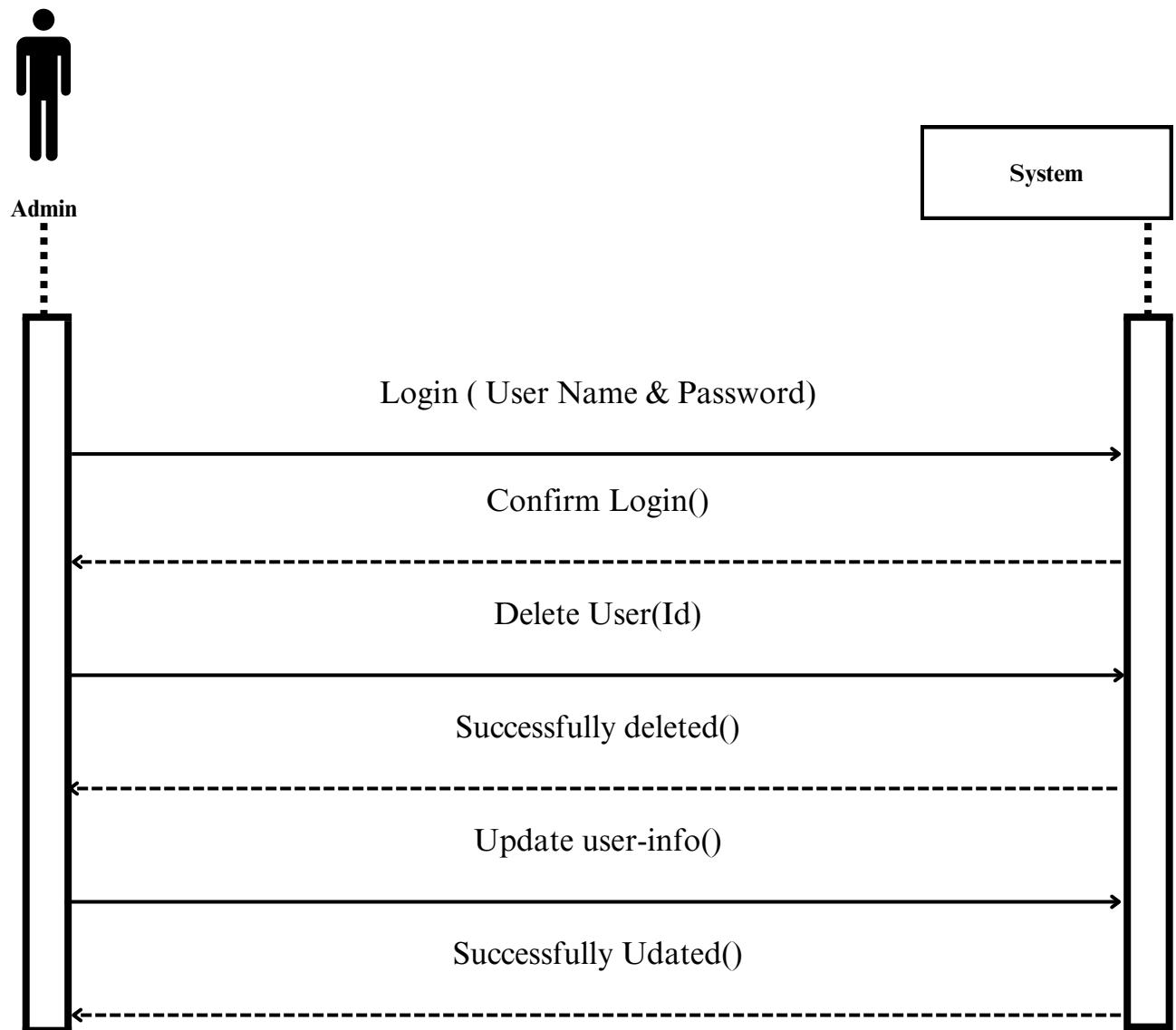


Figure 4.41: Sequence Diagram for login (admin)

4.4.2 Sequence Diagram for admin Logout

Sequence diagram for admin logout is depicted in the form of diagram below.

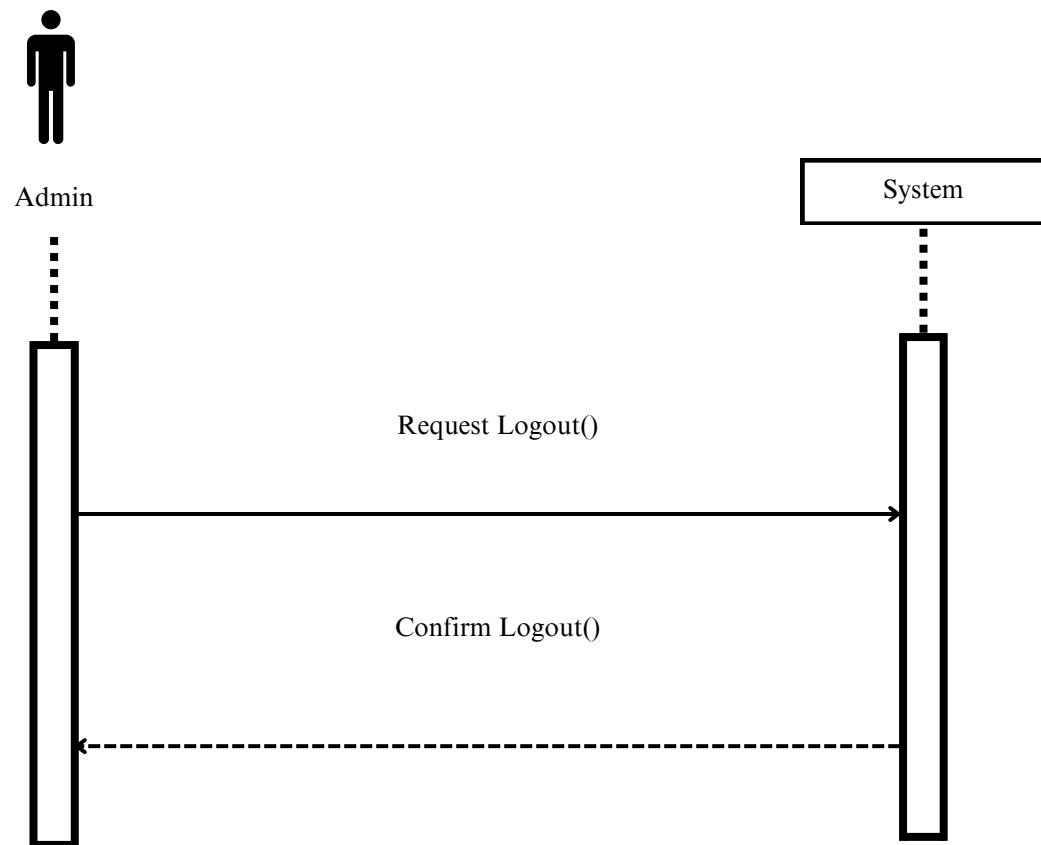


Figure 4.42: Sequence Diagram for Logout (admin)

4.4.3 Sequence Diagram for user Signup & Login

Sequence diagram for user Signup & Login is given below.

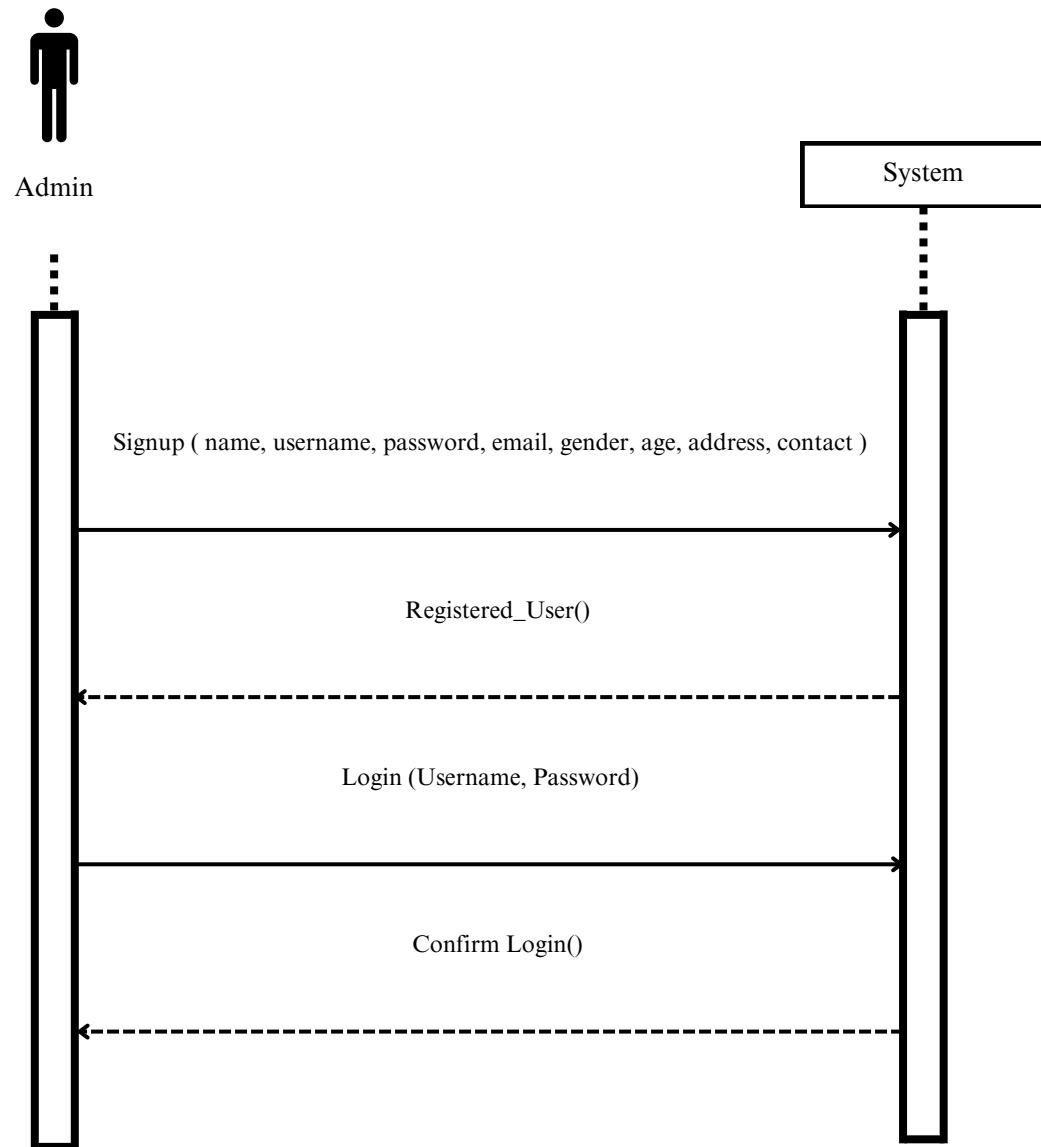


Figure 4.43: Sequence diagram for user signup and login (User)

4.4.4 Sequence Diagram for User Logout

Sequence diagram for user logout is given below.

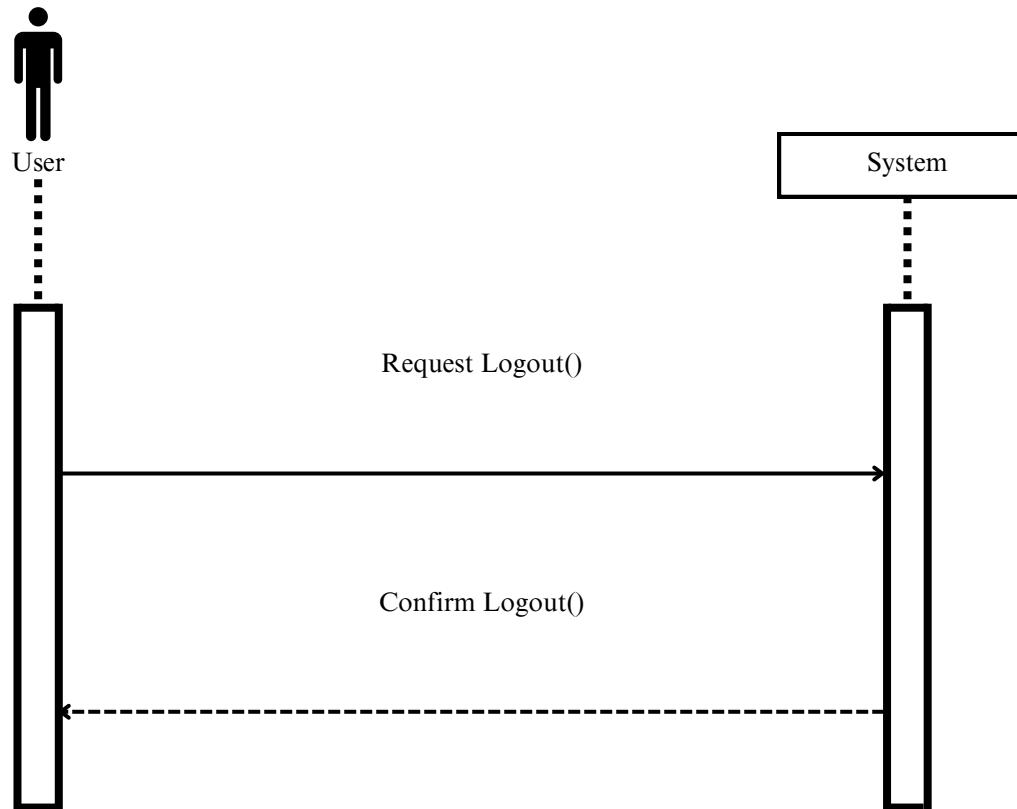


Figure 4.44: Sequence Diagram for Logout (User)

4.5 ER Diagram

An ER Diagram (Entity-Relationship Diagram) is a conceptual and graphical representation of the data and relationships within a system, commonly used in database design and development. It provides a high-level, logical view of how data is structured, organized, and interrelated, serving as a blueprint for database creation and optimization. By visually mapping out the components of a system, ER diagrams help stakeholders, including developers, database administrators, and analysts, to understand and refine the data model before implementation. ER diagrams are especially useful for understanding and planning the data architecture of a system. They provide a clear and structured view of how various data elements interact and how they will be stored and accessed within a database. [13]

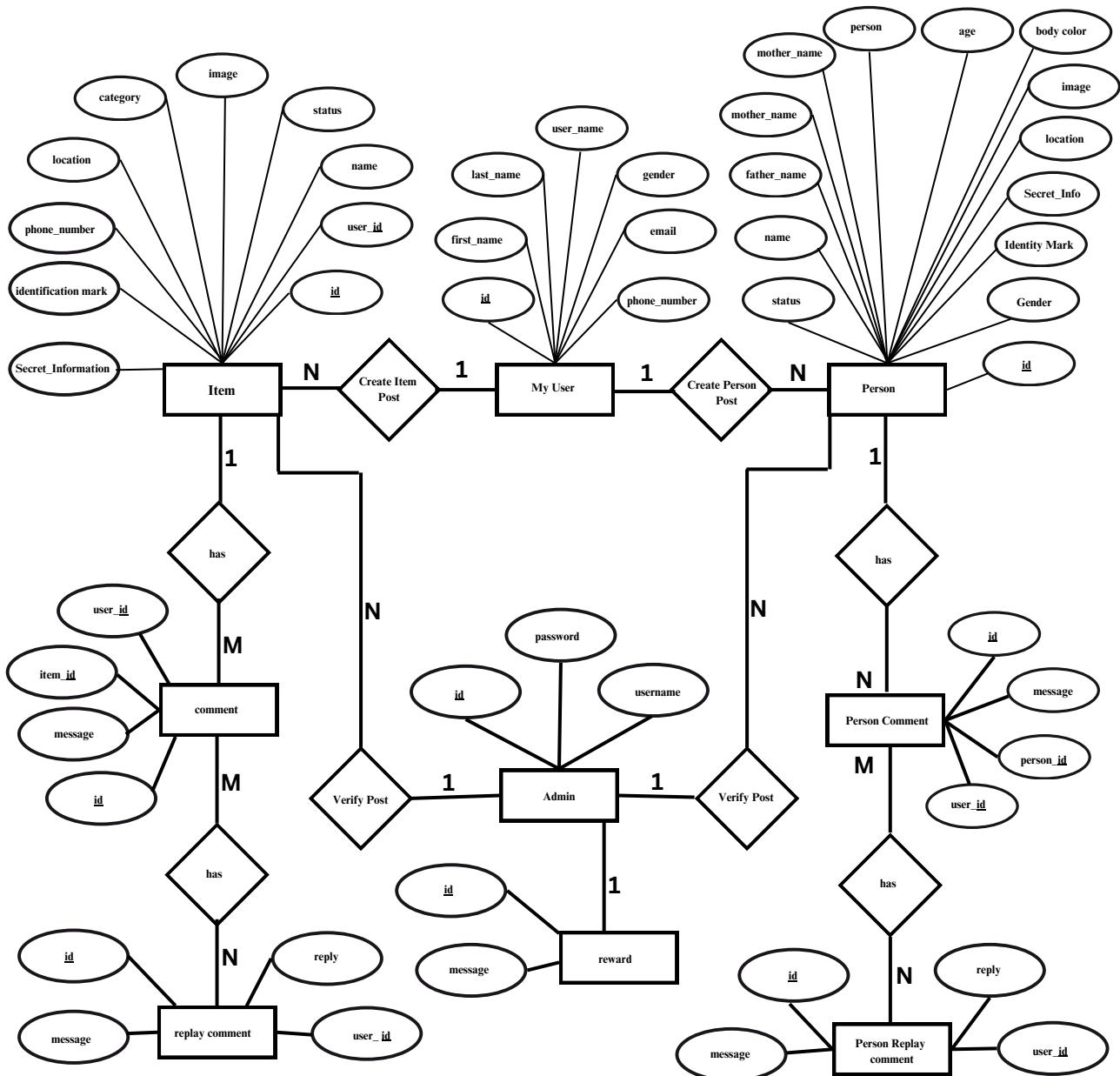


Figure 4.5: ER Diagram

4.6 Development Tools & Technology

4.6.1 User Interface Technology (Front End)

User Interface Technology is given in table 4.6.1

4.6.1.1	Javascript
4.6.1.2	HTML5, CSS3
4.6.1.3	React.js

Table: 4.6.1: User Interface Technology

4.6.2 Implementation Tools & Platforms

Implementation Tools & Platforms is given in table 4.6.2

4.6.2.1	Node.js
4.6.2.2	MongoDB
4.6.2.3	Tools: vs code, Mongo

Table: 4.6.2: Implementation Tools & Platforms

CHAPTER 5

RESULTS AND DISCUSSIONS

5.1 Features Tested

Features tested ok are given in table 5.1

Featured ID	Featured Name	Description	Involved User	Tested OK / NOT OK ✓/✗
01	Login (Admin)	Check admin login working or not	Admin	✓
02	Search	Check search feature working or not	User	✓
03	Create Post	Check user can successfully create a post.	User	✓
04	View Post	Check User can see all found post in found section and lost post in lost section.	User	✓
05	Post Details	Check user can see a post details by clicking on detail.	User	✓
06	Edit / Delete Post	Check user can edit / delete post or not.	User	✓
07	Comment	Check user successfully make a comment under a post.	User	✓
08	Logout	Check user can log out or not	User	✓
09	Logout (Admin)	Check admin can logout or not.	Admin	✓

Table 5.1: Features Tested Ok

5.2 Testing Strategies

5.2.1 Test Approach

Test strategy is the process and procedures of how the system should be tested the test date is identified by expected output for actual input. Test plan is a standard document produced in most software engineering projects. Low quality projects don't have test plans. Test plan is written after requirement analysis. System is tested with sample data to see how it handles input and output functions with extreme data.

5.2.2 Pass/Fail Criteria:

1. High reliability of passing the system.
2. If the system is 80% error free it will pass either will fail.
3. If the system retrieve data in less than 4 seconds it will pass.
4. If the validation work properly system will pass.
5. If the system retrieves 80% accurate data system will pass.

5.2.3 Suspension and resumption

Suspension:

1. Unavailability loading data from server.
2. System Crush.
3. Invalid data.

Resumption:

1. System taking too much time to load data.
2. Failure in data validation. [14]

5.3 User Manual Screenshots

5.3.1 User Home Page

At first user will view the home page. In homepage user will see some buttons on the menu bar then few lost posts and few found post then footer. User will also see information about locations we are available on the top of the bottom side.

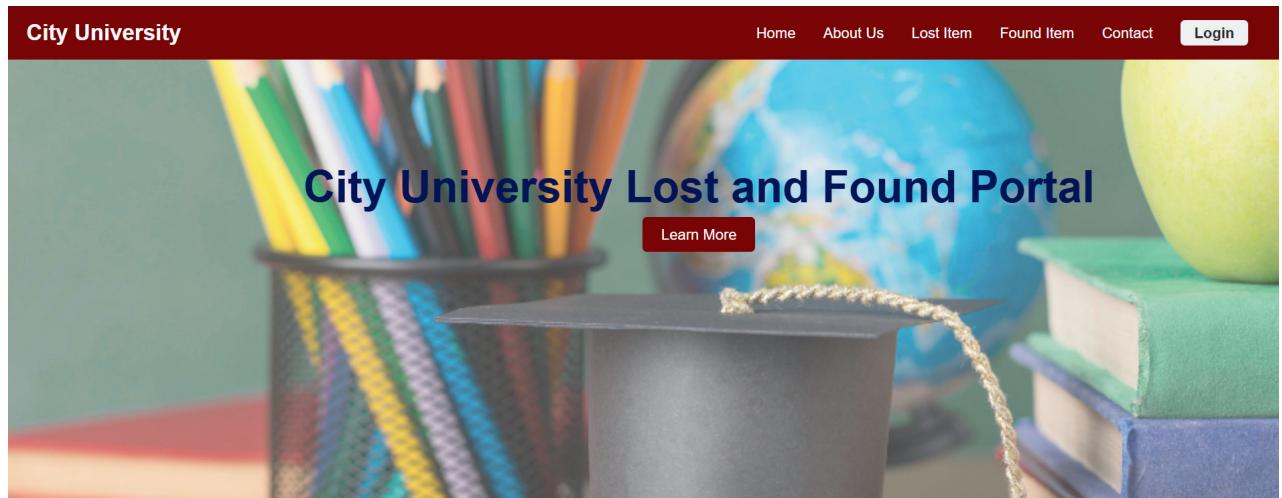


Figure 5.31 : User Homepage

5.3.2 User Signup

Before login into the system user must have to sign up. To sign up user have to go to sign up page.

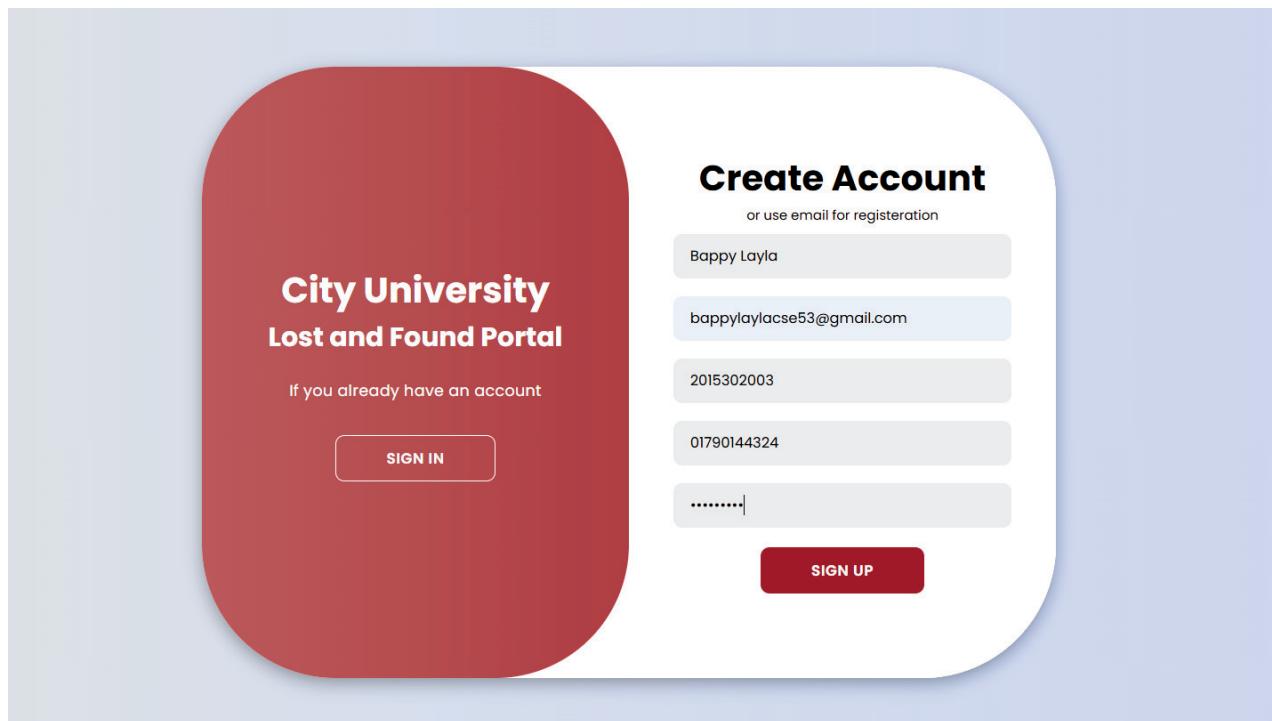


Figure 5.32 : User Signup

5.3.3 User Login

After sign up user can login into the system with the username and password

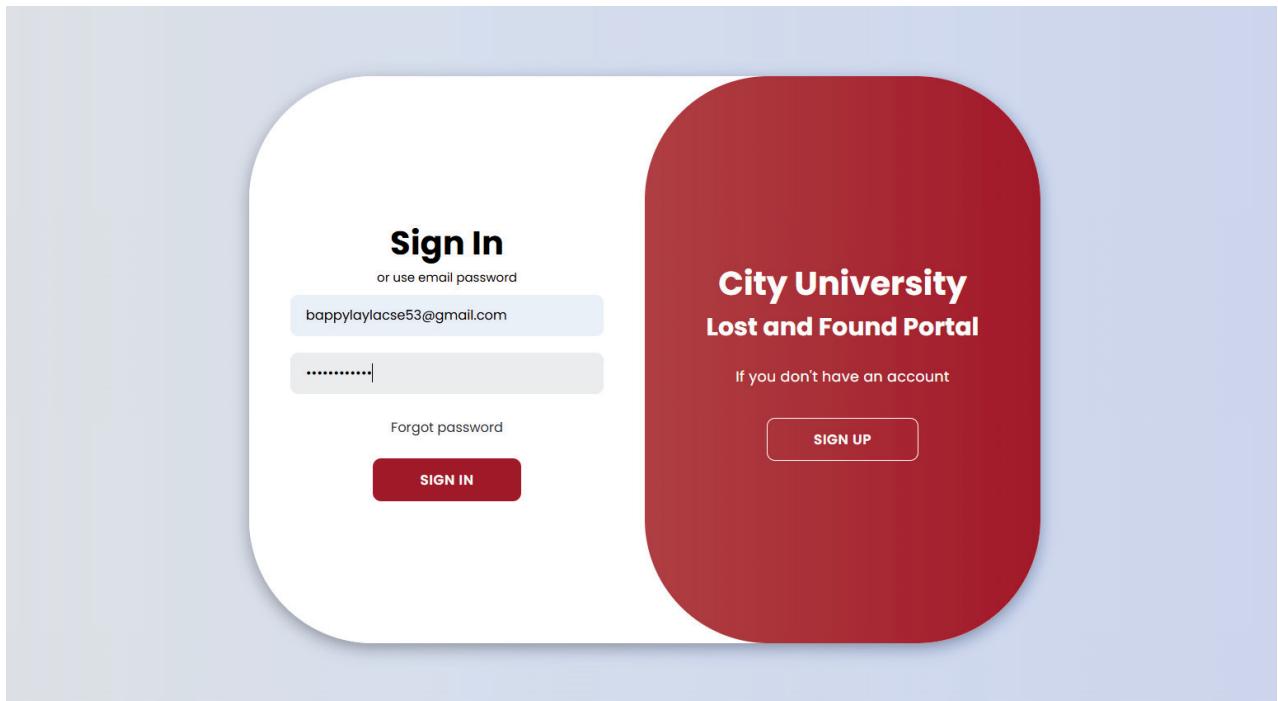


Figure 5.33 : User Login

5.3.4 User Post Creation

User can create lost and found post after the completion of Login process.

The image shows the "Lost and Found" posting form. It has a green header bar with the title "Lost and Found" and a sub-instruction "Post details of your lost items here to help others identify and return them." Below the header are several input fields: "Item Name" (mobile), "Description" (Samsung A13), "Last Seen Location" (class room), "Date Lost" (01-Jan-2025), "Contact Information" (01755555555), and an "Upload an Image" section with a "Select Images" button and a file input field showing "[Choose Files] 3 files". At the bottom is a green "Post Item" button.

Figure 5.34 : User Post Creation

5.3.5 User Lost Post View

User can view all lost post listing in this section

All Found Items



Lost Wallet

Light Merun leather wallet found near the city university's front the account section.



Keys

Set of car keys .



Smartphone

Samsung Galaxy phone found at the bus stop.



Books

Set of the books.



Laptop

Laptop lost from the library.

Figure 5.35 : User Lost Post View

5.3.6 Make Comment On Post

User can make and edit comments on the post.

All Found Items



Lost Wallet

Light Merun leather wallet found near the city university's front the account section.

Posted 5 day(s) ago

Write a comment...

Submit



Keys

Set of car keys.

Posted 3 day(s) ago

Write a comment...

Submit



Smartphone

Samsung Galaxy phone found at the bus stop.

Posted 1 day(s) ago

Write a comment...

Submit



Books

Set of the books.

Posted 6 day(s) ago

Write a comment...

Submit



Laptop

Laptop lost from the library.

Posted 7 day(s) ago

Write a comment...

Submit

Figure 5.36 : Make Comment On Post

5.3.7 Admin Panel

Each and every admin will have their own admin panel.

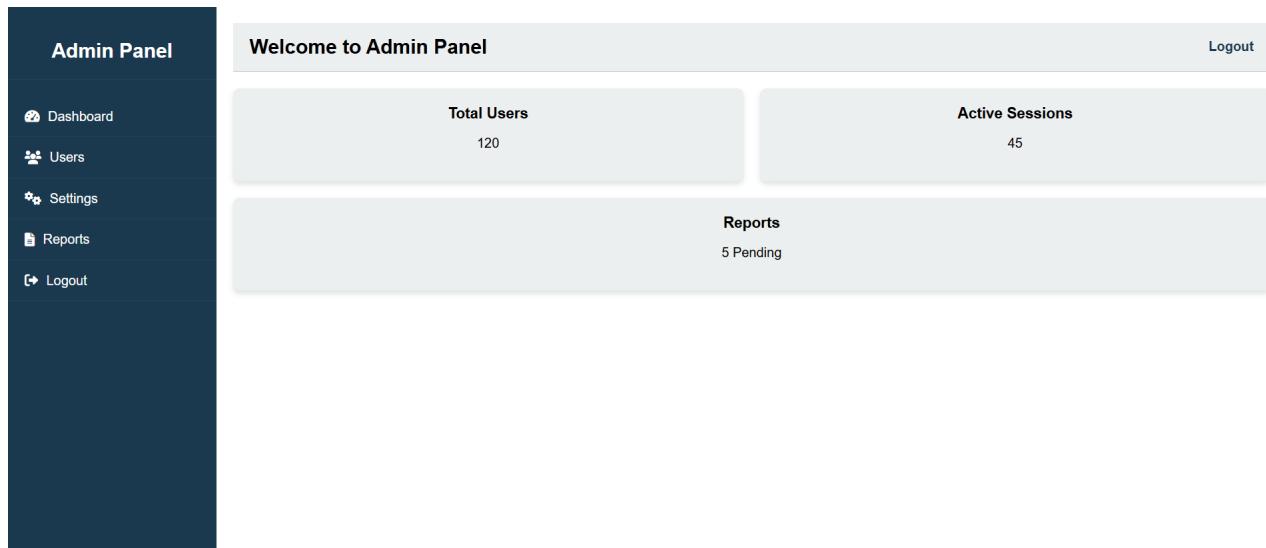


Figure 5.37 : Admin panel

CHAPTER 6

CONCLUSION

6.1 Conclusion

The "City University Lost and Found Portal" was developed with the goal of addressing the prevalent issue of misplaced items within the university campus. By providing a centralized, user-friendly platform, the portal ensures efficient reporting, tracking, and retrieval of lost and found items. Throughout the development process, we leveraged modern web technologies, emphasizing responsiveness, accessibility, and security to cater to the needs of students, faculty, and staff. This project not only highlights the practical application of our academic knowledge but also demonstrates our ability to solve real-world problems through innovative solutions. The portal stands as a testament to the importance of collaborative effort, effective project management, and technical expertise. We believe the implementation of this system will significantly enhance campus life by fostering a sense of community and responsibility. Moving forward, potential improvements such as integration with mobile apps and AI-based item matching can further enhance its usability and effectiveness. The completion of this project marks a milestone in our academic journey, preparing us to tackle complex challenges in our professional careers with confidence and competence.

Considering so many difficulties throughout the entire development process the web application and the system is ready to be used by the user with accuracy and efficiency. This system is not developed for small purpose it has a long plan. Not just in our university we want to make our system available for every university in Bangladesh. We want to help people by providing information about their lost and found things and make a communication between owner and finder

6.2 Future Work

Lost & Found application will help to handle missing problems of our university. A community will be buildup through our application which will help us to find any lost thing and also help us to return a lost thing back to the owner. People can earn special gifts by returning a lost thing back. So, it can be a source of earning. Our purpose is to connect with every user through our service. Returning their valuable things safely without any hassle and damage. Handling missing issues in a smart way. In future, we want to track location to find lost things.

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