

**COMING OUT OF DEPRESSION, MENTAL ILLNESS USING SOCIAL MEDIA  
PLATFORM**

**BY**

**MD. MOHIMEN AL ISLAM FARHAN**

**ID: 183-15-11904**

**AND**

**JANNATY AKTER NISHY**

**ID: 183-15-11837**

This Report Presented in Partial Fulfillment of the Requirements for the Degree  
of Bachelor of Science in Computer Science and Engineering

Supervised By

**Ms. Afsara Tasneem Misha**

Lecturer

Department of CSE

Daffodil International University

Co-Supervised By

**Mr. Md. Sadekur Rahman**

Assistant Professor

Department of CSE

Daffodil International University



**DAFFODIL INTERNATIONAL UNIVERSITY**

**Dhaka, Bangladesh**

**January 2023**

## APPROVAL

This project, titled “Coming out depression, mental illness using social media platform,” submitted by Md. Mohimen Al Islam Farhan and Jannaty Akter Nishy to the Department of Computer Science and Engineering, Daffodil International University, has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of B.Sc. in Computer Science and Engineering and approved as to its style and contents. The presentation took place on 24 January 2023.

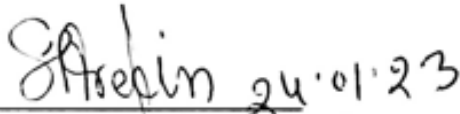
## BOARD OF EXAMINERS

**Chairman**

---

**Dr. Touhid Bhuiyan**  
**Professor and Head**

Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University



---

**Dr. Mohammad Shamsul Arefin**  
**Professor**

Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University

**Internal Examiner**

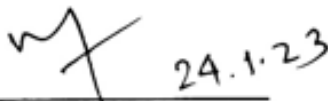


---

**Md. Sabab Zulfiker**  
**Senior Lecturer**

Department of Computer Science and Engineering  
Faculty of Science & Information Technology  
Daffodil International University

**Internal Examiner**



---

**Dr. Ahmed Wasif Reza**  
**Associate Professor**

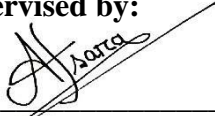
Department of Computer Science and Engineering  
East West University

**External Examiner**

## DECLARATION

We hereby declare that this project has been done by us under the supervision of **Ms. Afsara Tasneem Misha, Lecturer, Department of CSE, Daffodil International University**. We also declare that neither this project nor any part of this project has been submitted elsewhere for the award of any degree or diploma.

**Supervised by:**



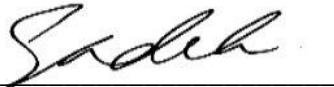
**Ms. Afsara Tasneem Misha**

Lecturer

Department of CSE

Daffodil International University

**Co-Supervised by:**



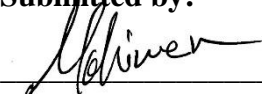
**Mr. Md. Sadekur Rahman**

Designation

Department of CSE

Daffodil International University

**Submitted by:**

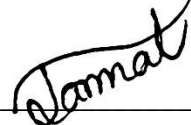


**Md. Mohimen Al Islam Farhan**

ID: 183-15-11904

Department of CSE

Daffodil International University



**Jannaty Akter Nishy**

ID: 183-15-11837

Department of CSE

Daffodil International University

## ACKNOWLEDGEMENT

First, we express our heartiest thanks and gratitude to almighty God for His divine blessing, which made it possible for us to complete the final year project successfully.

We are extremely grateful to and grateful to Supervisor **Ms. Afsara Tasneem Misha, Lecturer**, Department of CSE, Daffodil International University, Dhaka. deep knowledge & keen interest of our supervisor in the field of “*Web-Based Application*” to carry out this project. His endless patience, scholarly guidance, continual encouragement, constant and energetic supervision, constructive criticism, valuable advice, and reading many inferior drafts and correcting them at all stages have made it possible to complete this project.

We would like to express our heartfelt gratitude to **Dr. Touhid Bhuiyan, Professor** and Head, Department of CSE, for his kind help in finishing our project and to other faculty members and the staff of the CSE department at Daffodil International University.

We would like to thank our entire course mate group at Daffodil International University, who took part in this discussion while completing the course work.

Finally, we must acknowledge with due respect the constant support and patience of our parents.

## **ABSTRACT**

Right now, social media is the quickest and most effective way to communicate. Through social media, people can communicate their thoughts and feelings. We wanted to build a social media platform where people could talk about their mood disorders and get advice from professionals or others who had already dealt with the issue. Our social media platform is called EASE. The framework that was suggested combined a confrontation using HTML, CSS, JavaScript, and React to show the content structure and a back end of the database using MongoDB, ExpressJS, and Node.js. This project examined the tools and technology used to create the framework. The framework of various social media platforms was contrasted in order to find commonalities and differences. The rationale for selecting one improvement technique for this extent was examined along with a variety of improvement techniques. The techniques used to draw the desired conclusions were also covered, along with how the analysts and engineers will generally apply these techniques when creating the proposed framework. Modeling Dialect Graphs that were bound together were created to represent each framework. Exhibits of various websites that were accessible online were discussed, and after that, an evaluation using two methods to assess the internet's location was carried out.

# TABLE OF CONTENTS

<b>CONTENTS</b>	<b>PAGE</b>
BOARD OF EXAMINERS .....	ii
DECLARATION .....	ii
ACKNOWLEDGEMENT .....	iv
ABSTRACT.....	v
List Of Figures .....	ix
List Of Tables .....	x
<b>CHAPTER 1</b> .....	1-2
<b>INTRODUCTION</b> .....	1
1.1 Introduction.....	1
1.2 Motivation.....	1
1.3 Objective .....	1
1.4 Description of the system.....	1
1.5 Expected Outcome .....	2
1.6 Report Layout .....	2
<b>CHAPTER 2</b> .....	3-5
<b>BACKGROUND</b> .....	3
2.2 Related Works.....	3
2.2.1 Maya .....	3
2.2.2 Facebook .....	3
2.3 Comparative studies.....	5
2.4 Scope of the problem .....	5
2.5 Challenges.....	5
<b>Chapter 3</b> .....	6-15
<b>REQUIREMENT SPECIFICATION</b> .....	6
3.1 Business Process Modeling.....	6
3.2 Requirement Collection and Analysis .....	7
3.2.1 Resources Used to Develop and Improve the system.....	7
3.2.2 Resources Used to Develop and Improve the System .....	7
3.3 Use Case Modeling and Description.....	7
3.4 Diagram.....	11
3.5 ER-Diagram .....	12
3.6 Design Requirements .....	13

<b>CHAPTER 4</b> .....	14-22
<b>DESIGN SPECIFICATION</b> .....	14
4.1 Front-End Design.....	14
4.1.1 Front-End Design for Login Page.....	14
4.1.2 Front-End Design for Signup Page.....	15
4.1.3 Front-End Design for Account Verification Email.....	15
4.1.4 Front-End Design for Find Account Page .....	16
4.1.5 Front-End Design for Reset Password Page .....	16
4.1.6 Front-End Design for Reset Password Email .....	17
4.1.7 Front-End Design for Code Verification Page.....	17
4.1.8 Front-End Design for New Password Page .....	18
4.2 Back-End Design .....	18
4.3 Interaction Design and UX .....	19
4.4 Implementation Requirements .....	19
<b>CHAPTER 5</b> .....	20-28
<b>IMPLEMENTATION AND TESTING</b> .....	20
5.1 Implementation of Database .....	20
5.1.1 Database Design.....	20
5.1.2 Database Management System .....	20
5.1.3 MongoDB .....	20
5.2 Implementation and Interaction .....	23
5.3 Testing Implementation .....	23
5.4 Test Result and Reports .....	25
<b>CHAPTER 6</b> .....	27-30
<b>IMPACT ON SOCIETY, ETICAL ASPECTS, SUSTAINABILITY</b> .....	27
6.1 Impact on Society .....	27
6.2 Ethical Aspects.....	27
6.3 Sustainability Plan .....	27
<b>CHAPTER 7</b> .....	<b>28</b>
<b>CONCLUSION AND FUTURE SCOPE</b> .....	<b>28</b>
7.1 Discussion and Conclusion .....	28
7.2 Scope for Further Developments .....	28

<b>APPENDIX</b> .....	29-33
8.1 Appendix: Project Reflection.....	29
<b>REFERENCES</b> .....	31



## List Of Figures

<b>FIGURES</b>	<b>PAGE NO</b>
Figure 3.1: Business Process Model (BPM)	6
Figure 3.3.1: Use Case for Ease	8
Figure 3.4.2: Data Flow Diagram 1	12
Figure 3.5: ER Diagram	13
Figure 4.1.1: Login Page	17
Figure 4.1.2: Signup Page	18
Figure 4.1.3: Account Verification Email	18
Figure 4.1.4: Find Account Page	19
Figure 4.1.5: Reset Password Page	19
Figure 4.1.6: Reset Password Email	20
Figure 4.1.7: Code Verification Page	20
Figure 4.1.8: New Password Page	21
Figure 4.2: Node JS	21
Figure 5.1.3.0: MongoDB	24
Figure 5.1.3.1: MongoDB Collections	24
Figure 5.1.3.2: Backend Post	25
Figure 5.1.3.3: Backend React	25

## List Of Tables

<b>TABLE</b>	<b>PAGE NO</b>
Table 3.3.1: A description of the "Registration" use case modeling	9
Table 3.3.2: A description of the "Login" use case modeling	9
Table 3.3.3: A description of the "Profile" use case modeling	10
Table 3.3.4: A description of the "Add Contact" use case modeling	10
Table 3.3.5: A description of the "Post" use case modeling	11
Table 3.3.6: A description of the "Updating database" use case modeling	11
Table 3.5.1: "Ease" ER diagram relationship table	13
Table 5.3: Test Case Table for Ease	26-27

# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction

The "Ease" project can be useful for people who are looking for a way to express their emotions and seeking treatment for a mood disorder. This project aims to support those who have gone through similar experiences by facilitating emotional expression. Many people are looking for a forum where they can interact with others, share ideas, or connect with professionals. But as of right now, they are still not supported by a sufficient system. Finding the right help can be difficult, especially for those who are just starting to experience anxiety and mood disorders. All of those specific issues are intended to be resolved by this framework, which will make sure that everything goes as smoothly as possible.

### 1.2 Motivation

Living with a mental illness is difficult. If one neglects their mental health, it is simple to neglect one's physical health as well. A higher risk of chronic stress has been linked to obesity, heart attacks, and strokes. Mental illness has an effect on the entire body even though it may only affect the brain. Mental illness that is not being treated impairs judgment and creates the impression that there is no way out. About 90% of suicides, it is believed, are the result of untreated mental illnesses.

### 1.3 Objective

The following are the project's main goals:

- Create a new platform that will be useful to users.
- New users can get advice from more experienced users.
- Establishing a community for those who share a similar outlook or set of issues.

### 1.4 Description of the system

One of the important factors in this scenario is the user. The user basically creates a profile that links them to people who have similar interests.

## **1.5 Expected Outcome**

E-Health transmits knowledge about common ailments and diseases, as well as treatments, across the country via electronic media. E-health links to nearby medical facilities are available for the rural Bangladeshi community.

## **1.6 Report Layout**

In this first chapter, we covered the fundamental idea of "Ease." We covered introduction, motivation, objective, description of the system, and expected outcome.

In Chapter 2: We will discuss the background of 'Ease'. We will try to cover Preliminaries, Related work, Challenge, Problem etc.

In Chapter 3: We will discuss 'Requirement Specification for Ease'.

In Chapter 4: We will discuss 'Design Specifications'" for 'Ease'.

In Chapter 5: We will discuss 'Implementation and Testing' for 'Ease'.

In Chapter 6: We will discuss Impact on society, Environment and Sustainability.

In the final Chapter 7: We will discuss our future scope and conclusion.

## **CHAPTER 2**

### **BACKGROUND**

#### **2.1 Preliminaries**

The Bangladesh of today is a developed Bangladesh. Bangladesh has advanced through its increased global integration. Currently, the majority of people in Bangladesh use Android smartphones, and a sizable portion of the population uses the internet.

Currently, the Internet serves as a common resource for all human endeavors.

When people use their phones for any purpose, they are extremely happy. Web applications are very popular right now. For users to use any program, a simple cycle is necessary.

#### **2.2 Related Works**

There are a few programs similar to EASE. However, the main goal of our application is to improve user-doctor or user-user communication.

##### **2.2.1 Maya**

Maya is a mobile based application similar to the website we are developing.

##### **Advantages:**

Users can ask questions for free about lifestyle, beauty, and other physical, mental, and psychological issues. It also includes articles on maintaining one's health through reading. Give advice on staying healthy every day. Talk with doctors directly.

##### **Disadvantages:**

It's a mobile only application.

##### **2.2.2 Facebook**

Facebook is a website that enables users to connect online with friends, coworkers, and complete strangers after creating a free profile. It allows users to share pictures, music, videos, and articles, as well as their own thoughts and opinions, with as many people as they like.

**Advantages:**

Users send “friend requests” to people who they may – or may not – know.

Following acceptance, both users' profiles are linked, allowing them to see everything the other user posts. "Facebookers" can enter private chat with other online friends and post almost anything to their "timeline," which shows what is happening in their social circle at any given moment.

Profiles contain information about the individuals who have them. Many users post a lot of information that their friends and others can easily access, including their jobs, places of study, ages, and other personal details. Users can also "like" other pages that interest them. For instance, a fan of Liverpool FC can keep up with the team by connecting to its Facebook page. The user can leave comments there and get club updates, photos, etc.

**Disadvantages:**

- **Privacy:** Teens occasionally forget that posting on Facebook is essentially publishing, and that unless the profile is set to private, anyone can see the information. Teenagers frequently post excessive amounts of personal information online, like photos or phone numbers.
- **Predators:** Despite being rare, there have been times when predators and other dishonest people have specifically targeted children on Facebook. Due to its nature, the website is easily accessible and filled with personal information.
- **Cyberbullying:** By repeatedly sending hurtful messages and employing other strategies, bullies have a new, fertile field of conflict on Facebook where they can harm their victim as much as possible. Many accounts are being hijacked, and severe instances of cyberbullying have harmed the victims.
- **Meeting People:** Many parents are concerned that their children will encounter online acquaintances in real life. There are clear risks involved with this. Unfortunately, not all online contacts are authentic, and some young people will believe everything you say.
- **Content:** On occasion, Facebook hosts content that is offensive to young people and inappropriate for them. Facebook has a large older user base due to its popularity, and children are frequently exposed to material that their parents would prefer they not see.

## **2.3 Comparative studies**

Our country's many software companies provide e-commerce applications, and many businesses use these applications. Not all businesses can, however, typically use social applications. The primary justification is the expense of these programs or applications.

After registering, the user of this application is only permitted to use it on a subdomain. Because the system key is absent from all other social applications, our system is totally unique. For commercial purposes, other applications have been successful, but not for communication development.

## **2.4 Scope of the problem**

We have faced a lot of problems while working on what to do with the application. We decided to keep which function are more important. We've had a lot of bugs when we started developing the system, and we've had a lot of trouble solving them.

## **2.5 Challenges**

While completing the project, we ran into a lot of problems. We made every effort to address those problems. As a result, we begin by considering the project's potential components. To use highlights in this project, we must first learn how to make them. Like Ease, there are other social networks, but none of them try to improve user communication. With this in mind, we decided to take on the task of developing 'Ease'.

## Chapter 3

# REQUIREMENT SPECIFICATION

### 3.1 Business Process Modeling

This design includes the "Ease" model. This design can be understood with this model. Business Process Model (BPM) speaks to the entire work process of the frame. Speaking of "flow illustration" is the procedure's fundamental standard. An illustration of the ability to comprehend their internal business system is a business process model. The graphical attestation will ensure that different associations' business attire is coordinated. BPM is effective for business satchels because it speaks to the entire business system down.

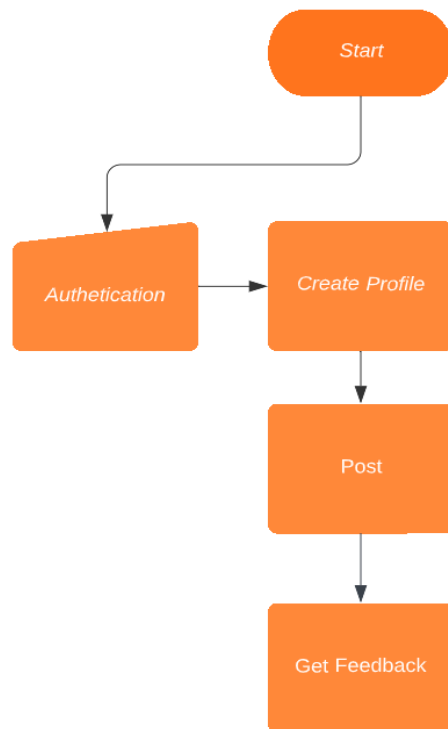


Figure 3.1: Business Process Model (BPM)



## **3.2 Requirement Collection and Analysis**

There are numerous requirements for this project. It is important to identify the best requirement. There are many different kinds of requirements, as evidenced by client requests. We have gradually gathered the client's needs, and we also compile bits of data from various sites and recovery communities. We carefully review some of the information and requirements. We deal with our project depending on these requirements and data. A superior exhibition could be provided with just the creation.

### **3.2.1 Resources Used to Develop and Improve the system**

It is crucial to identify the project's requirements and to organize the modules in a way that satisfies each one. A basic requirement is for certain planning advancements. A careful analysis of the fundamental requirements is necessary at some points. It will anticipate the client's satisfaction and experience problems. The creation would be ready to deliver a superior exhibition at that precise moment.

### **3.2.2 Resources Used to Develop and Improve the System**

Any project at that point should be worked on incrementally if it is to be created or improved. If one part improves, another part should also improve or be built up. The assets are the most important part after doing this. We will need a Windows computer, an internet browser, HTML, CSS, JavaScript, ReactJS, MongoDB, Node.js, and Express.js for this project. We are developing Ease, which works with browsers and mobile devices.

## **3.3 Use Case Modeling and Description**

A use case diagram is also referred to as a "connected display language" that is connected to framework activity in a way that graphically displays and plans the list of activities, jobs, and movements of clients and authorities in a condensed amount of time. In a diagram of a utilization case, various activities have entertainers playing the lead roles, and each entertainer is involved in a range of activities. situations in which a system is applied or interacts with a person, group, or organization.

Although a use case diagram didn't fully explain the entire process, you can still learn a lot from this type of diagram. It is obvious that the complete cycle of your performer action is suggested. We are now displaying the application's full use case diagram.

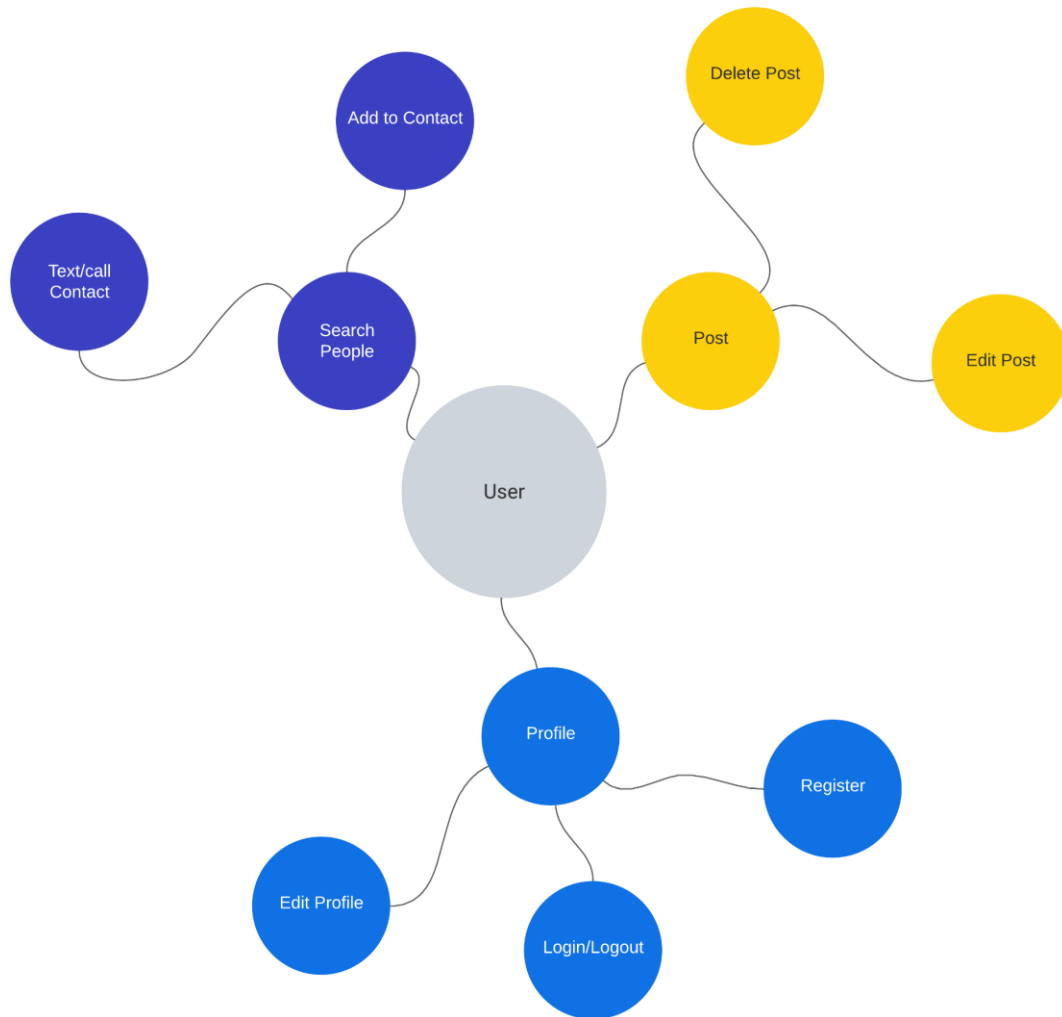


Figure 3.3.1: Use Case for Ease

Table 3.3.1: A description of the "Registration" use case modeling

Use case name, Description	Actor	Preconditions	Postconditions	Internal path	Exceptional path
1.Registration, this use case enables people to sign up for the system.	User	The user must have an active account.	The system shows the appropriate homepage.	1. The user must provide their username, email address, password, and password confirmation. 2. After gathering all of the data, the system displays a confirmation message to the actor.	1.The system notifies the user of the missing information if it doesn't receive all of it. 2. Allow time to gather all the necessary information.

Table 3.3.2: A description of the "Login" use case modeling

Use case name, Description	Actor	Preconditions	Postconditions	Internal path	Exceptional path
2. Login, Users can log into the system using this use case.	User	The user must have an active account.	The system shows the appropriate homepage.	1. The user must provide their username, email address, password, and password confirmation. 2. After gathering all of the data, the system displays a confirmation message to the actor.	1.The system notifies the user of the missing information if it doesn't receive all of it. 2. Allow time to gather all the necessary information.

Table 3.3.3: A description of the "Profile" use case modeling

Use case name, Description	Actor	Preconditions	Postconditions	Internal path	Exceptional path
3. Profile, Users can change their profiles and submit anything to their profile activity using this use case.	User	The user must have an active account.	The update page is shown by the system. Developers can utilize any information from this profile in an emergency.	1. The user needs to sign into their account. 2. After that, visit the profile area and make the necessary changes.	The system notifies the user of the missing information if it doesn't receive all of it.

Table 3.3.4: A description of the "Add Contact" use case modeling

Use case name, Description	Actor	Preconditions	Postconditions	Internal path	Exceptional path
4. Add Contact, this use case enables users to invite or add in groups, as well as add friends when it's essential, to communication.	User	The user must have an active account.	Registered accounts can add to the system.	1. The user needs to sign into their account. 2. After that, add friends from the profile area.	The system notifies the user of the missing information if it doesn't receive all of it.

Table 3.3.5: A description of the "Post" use case modeling

Use case name, Description	Actor	Preconditions	Postconditions	Internal path	Exceptional path
5. posting online Users are able to add any content to their own profile activity, as well as to groups and pages, under this use case.	User	The user must have an active account.	The post appears on the activity page thanks to the system.	1. The user needs to sign into their account.  2. Next, visit the homepage, where you can post from there and leave a comment.	The system notifies the user of the missing information if it doesn't receive all of it.

Table 3.3.6: A description of the "Updating database" use case modeling

Use case name, Description	Actor	Preconditions	Postconditions	Internal path	Exceptional path
6. Database updates, the system's databases can be updated thanks to this use case.	Developer	The system needs to be properly understood by developers.	When the database is updated, the system will adjust and display the new version.	1. Developers can use data from MongoDB and change or delete any table. 2. Fairly informing customers that the area is undergoing maintenance and taking the framework offline.	If the system doesn't receive all the necessary data, it will malfunction.

### 3.4 Diagram

This diagram is the summary of the whole application.

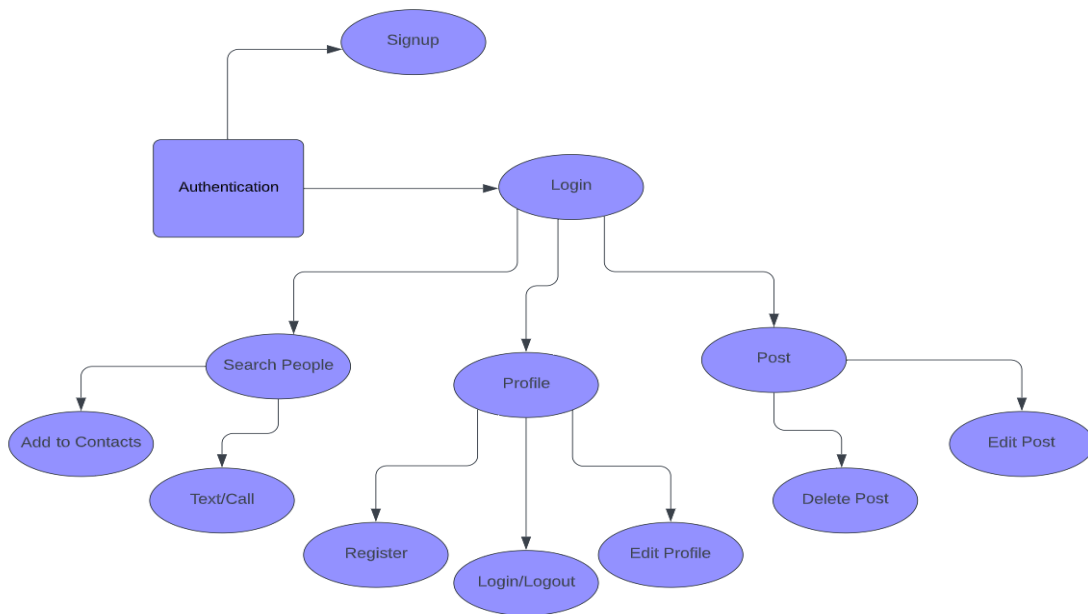


Figure 3.4.2: Data Flow Diagram

### 3.5 ER-Diagram

A particular sort of flowchart that demonstrates in great detail how to connect things like persons and items like articles is called an entity relationship diagram. Entity relationship diagrams are the most effective method for creating relationship diagrams in programming.

creating, operating a business, delivering training, and doing out field research. This field can be represented using an ER diagram with ease. Students and individuals can quickly view the entire structure in a few viewings. They can also produce a wide range of sights, such as priceless stones, ovals, square shapes, and combinations of lines, by employing what are known as ER or ERD models.

Data structure diagrams are used to identify entity relationships (DSDs). The diagram for the general framework is a stream that includes emergency room diagrams. Using this cycle, we can now understand how to represent the entire structure in the ER diagram for our project. Below is a diagram of the ER used in our project.

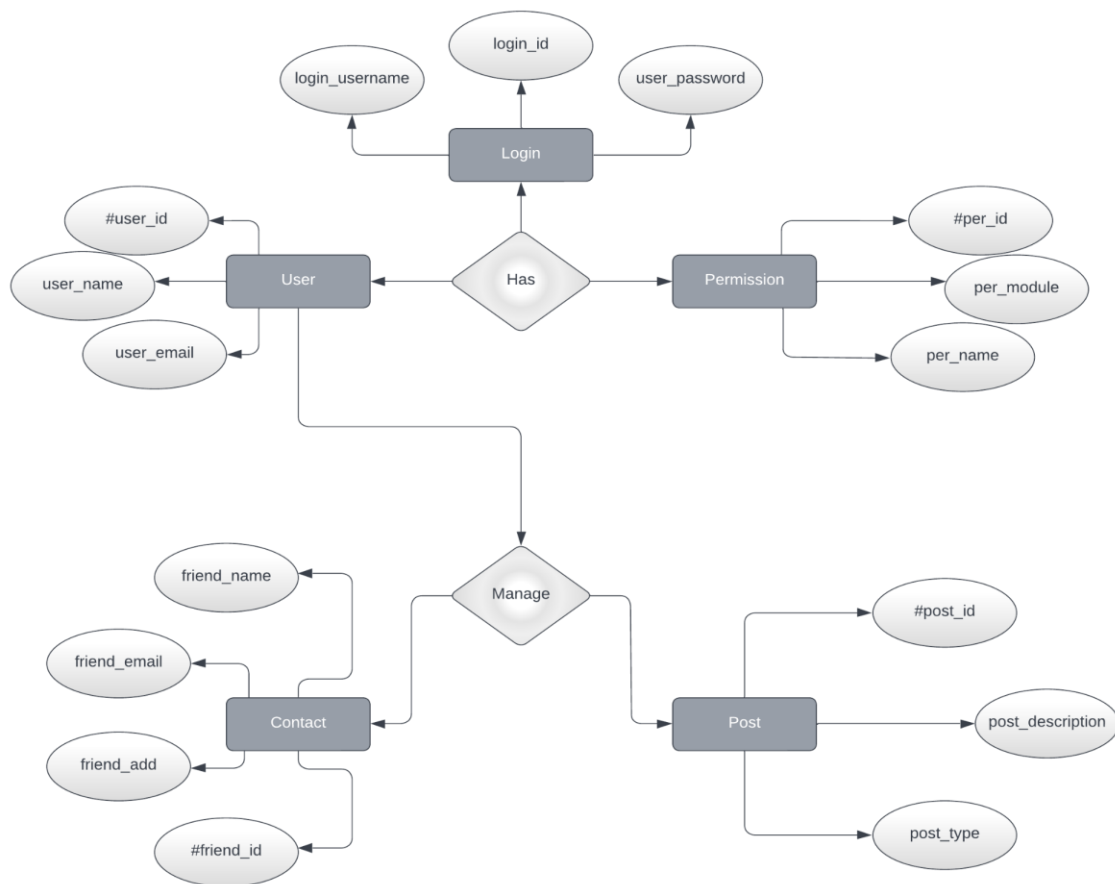


Figure 3.5: ER Diagram

Table 3.5.1: "Ease" ER diagram relationship table

Table name	Attributes
User	(name, image, email, user_id, password)
Registration	(name, email, password)
Post	(p_id, p_content, date)
Friends	(name, id)

### 3.6 Design Requirements

For user interface design:

- Login Page
- Signup Page
- Users' Profiles
- Search
- Post Panel
- Newsfeed

# CHAPTER 4

## DESIGN SPECIFICATION

In this chapter, we'll go over every facet of front-end and back-end design. To build the application, we used two different languages. We use HTML, CSS, and ReactJS for front-end design and Node.js, ExpressJS, and MongoDB for back-end design.

### 4.1 Front-End Design

Any application's Front-End component, which the user can see, is its most crucial part. A front-end is required when a user connects to the database and the back-end simultaneously. We'll have a serious discussion about the initial front-end design.

#### 4.1.1 Front-End Design for Login Page

By entering their username and password or authenticating through a social media login on the login screen, users can access an application.

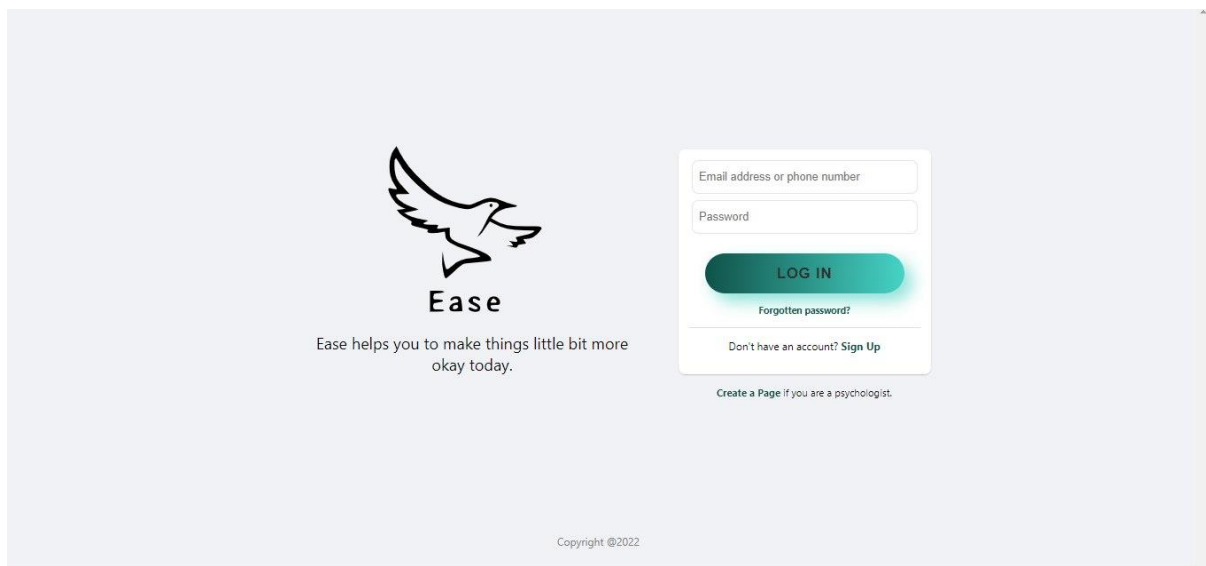
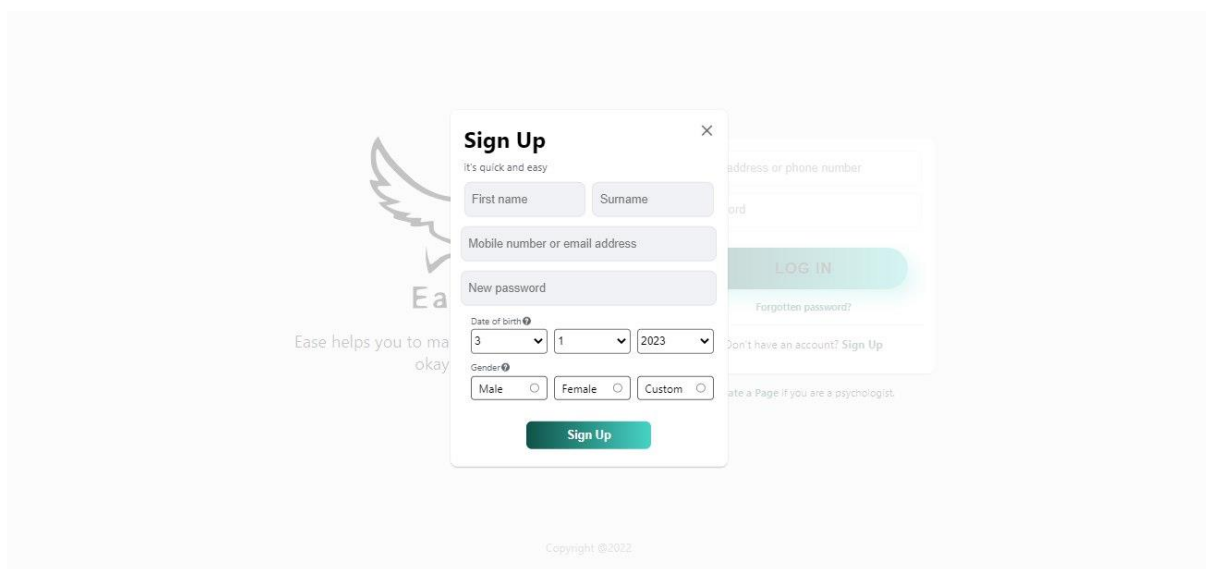


Figure 4.1.1: Login Page



## 4.1.2 Front-End Design for Signup Page

Using the signup page, users can independently register and gain access to your system.



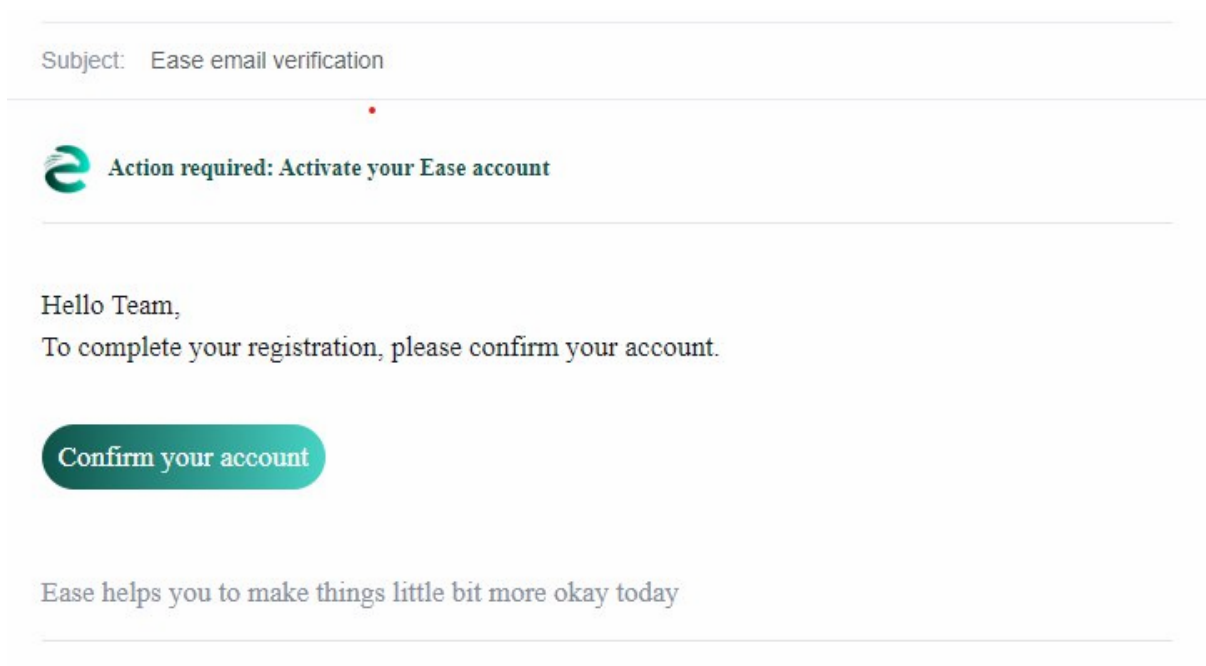
The image shows a 'Sign Up' form overlay on a login page. The form is titled 'Sign Up' and includes the following fields and options:

- First name
- Surname
- Mobile number or email address
- New password
- Date of birth (Month: 3, Day: 1, Year: 2023)
- Gender (Male, Female, Custom)
- Sign Up button

The background shows a login page with a 'LOG IN' button and a 'Forgot your password?' link. The text 'Ea' and 'Ease helps you to make things little bit more okay today' is visible in the background.

Figure 4.1.2: Signup Page

## 4.1.3 Front-End Design for Account Verification Email



The image shows an account verification email with the following content:

Subject: Ease email verification

**Action required: Activate your Ease account**

Hello Team,  
To complete your registration, please confirm your account.

**Confirm your account**

Ease helps you to make things little bit more okay today

Figure 4.1.3: Verification Email

## 4.1.4 Front-End Design for Find Account Page

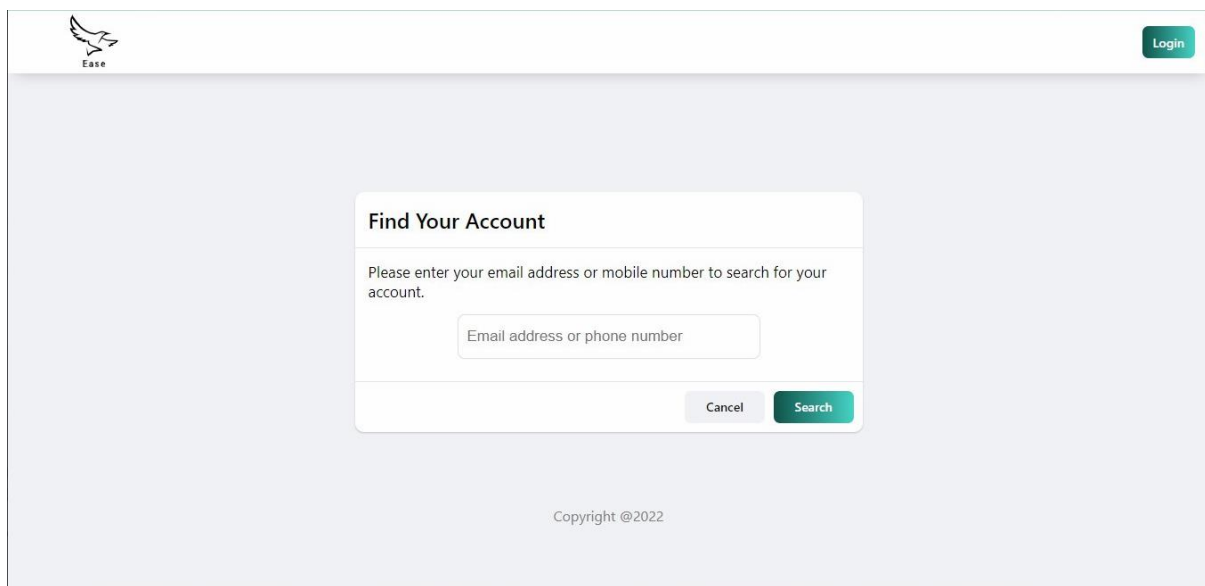


Figure 4.1.3: Find Account Page

## 4.1.5 Front-End Design for Reset Password Page

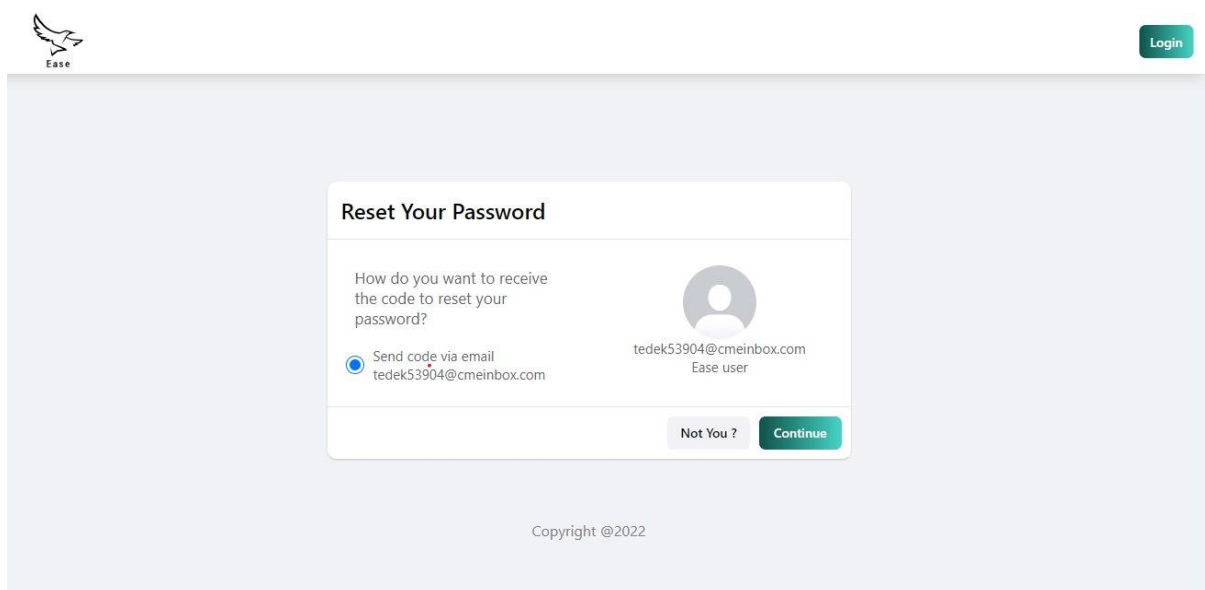


Figure 4.1.5: Reset Password Page

## 4.1.6 Front-End Design for Reset Password Email

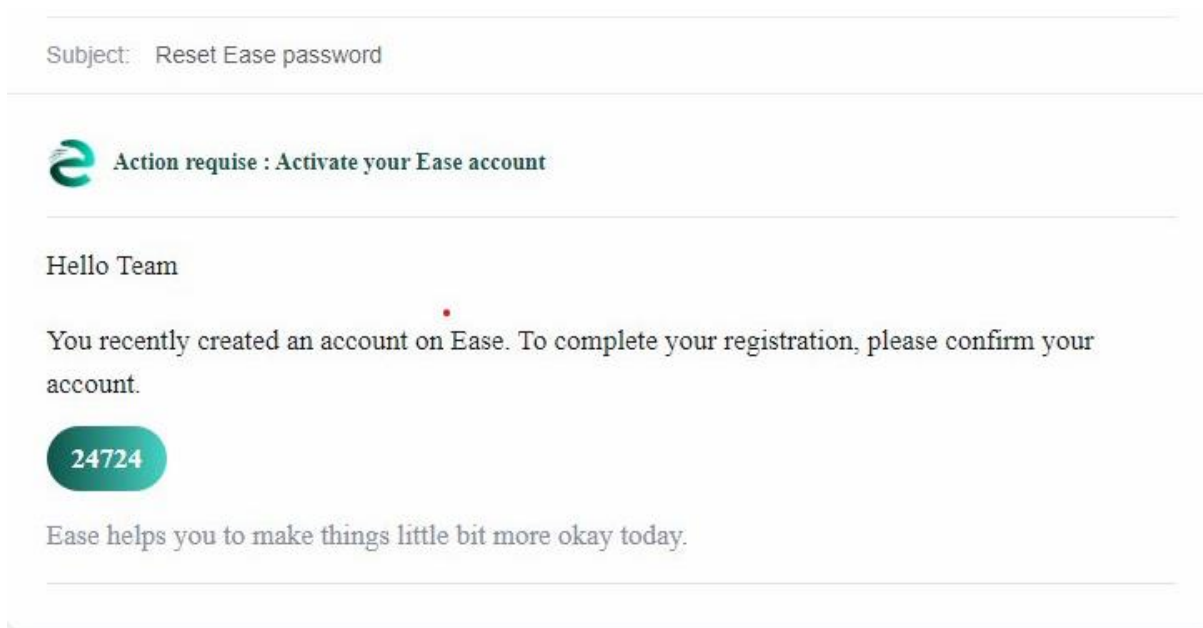


Figure 4.1.6: Forgot Password Code Email

## 4.1.7 Front-End Design for Code Verification Page

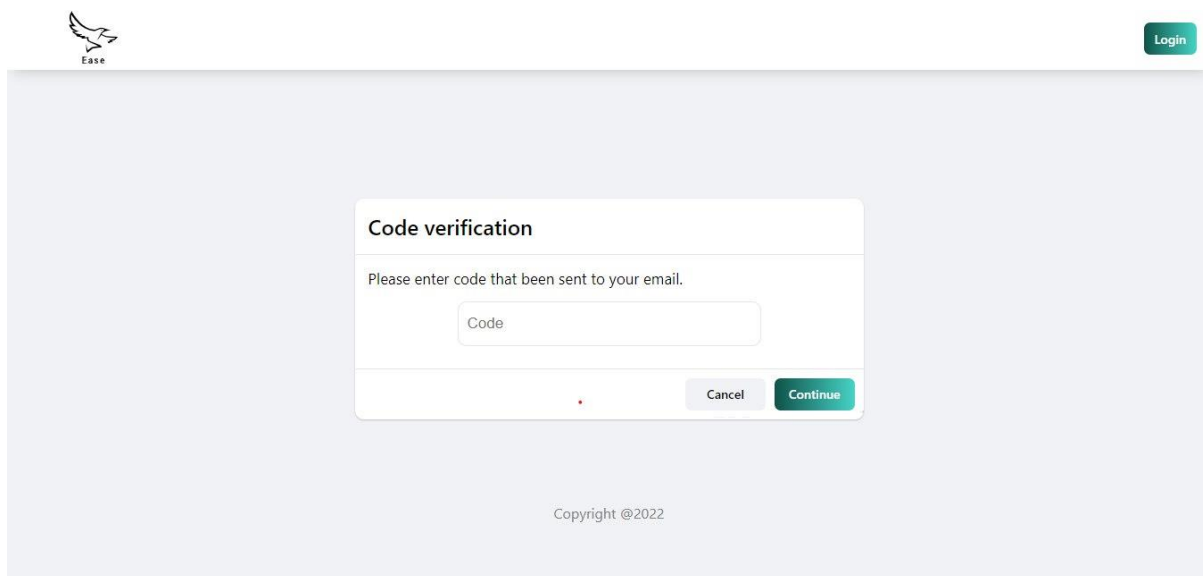


Figure 4.1.7: Code Verification Page

## 4.1.8 Front-End Design for New Password Page

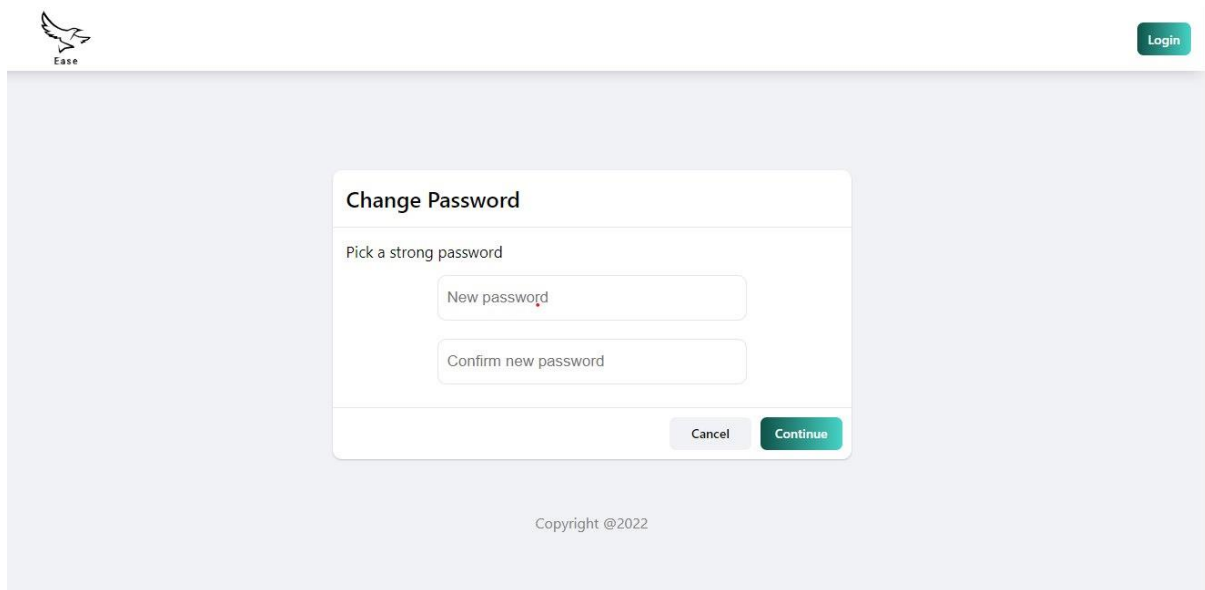


Figure 4.1.8: New Password Page

## 4.2 Back-End Design

The user cannot see the back-end of any application. The back-end of any application provides the user with the majority of the services. The front-end part receives user input, which is then processed by the back-end part. It is the brain of an application. By using Node.js, ExpressJS, and MongoDB, we can develop the backend easily.



Figure 4.2: Node JS

### **4.3 Interaction Design and UX**

Interaction design is a control that monitors how a framework communicates with its users. Understanding the client issue space, measuring the issue, identifying the results, taking action in accordance with the results, and resolving the issue are all steps in the cycle of interaction design. The client experience, however, is concerned with how a client and an application typically comprehend one another. Our application has a few features that can interact with the client. Network development is one of the components, which can be used to transmit knowledge or insights from one person to another. It might encourage the user to use the app. We want to give our users the best possible experience when using our application. To make our framework easier for the client to understand and use, we keep it straightforward. We made an effort to reduce the time it took for our application to load information, and we'll continue to do so.

### **4.4 Implementation Requirements**

This program should initially construct its front end, back end, and database relationships. Databases, IDEs, programming languages, and markup languages for style are all needed. This application runs on the web. As a result, both desktop and mobile browsers are compatible with this software. We employed Visual Code Studio, HTML, CSS, and React.js for front-end design. We will need Node.js, Express.js, and MongoDB to make our PC a local server. We require HTML, CSS, JavaScript, and ReactJs for front-end design. ExpressJS and Node.js are required for both the management of data operations and the functioning of the MongoDB database [3].

## **CHAPTER 5**

### **IMPLEMENTATION AND TESTING**

#### **5.1 Implementation of Database**

In this demonstration of database usage, we installed the database management system (DBMS) on a piece of hardware that was dependent on it, optimized the database to operate well on that hardware, and then loaded the data after the database had been constructed.

##### **5.1.1 Database Design**

Database configuration is the method for creating a comprehensive information model of a database. This information model contains every physical stockpiling boundary, intelligent choice, and physical plan decision required to formulate a strategy in an information definition language, which might subsequently be applied to the construction of a database. Each element in a fully attributed information model has unique credits. A database gathers and arranges data in a manner that satisfies all informational needs. The major goal is to give clients quick, flexible, economical, and easy access to their data. Additional aims include protection, security, execution, and regulator recurrence in the wake of setbacks. There are many different relative records in a table. A database's two default settings are as follows:

- Primary key: This field is interesting for all the record events
- Foreign key: This field used to set connection between tables Normalization is a strategy to dodge repetition in the tables.

##### **5.1.2 Database Management System**

A type of computer program used to create, administer, and access databases is known as a database management system (DBMS). We used MongoDB in our application because it provides programmers and users with a logical manner to create, retrieve, update, and manage data.

##### **5.1.3 MongoDB**

Data is stored as documents in the NoSQL database management system (DBMS) MongoDB, where key-value pairs resemble JSON objects. Using MongoDB, users may create databases, schemas, and tables. It provides the Mongo shell, which includes a JS interface, for removing, querying, and modifying records [9].



Figure 5.1.3.0: MongoDB

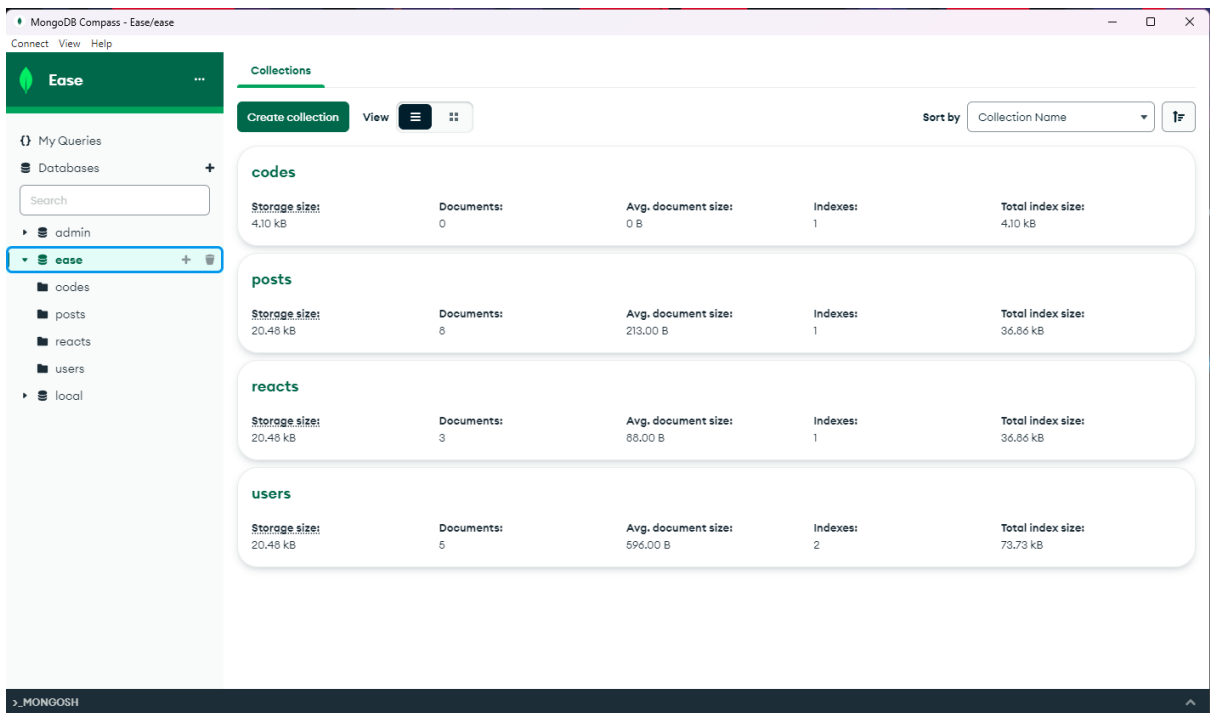


Figure 5.1.3.1: MongoDB Collections

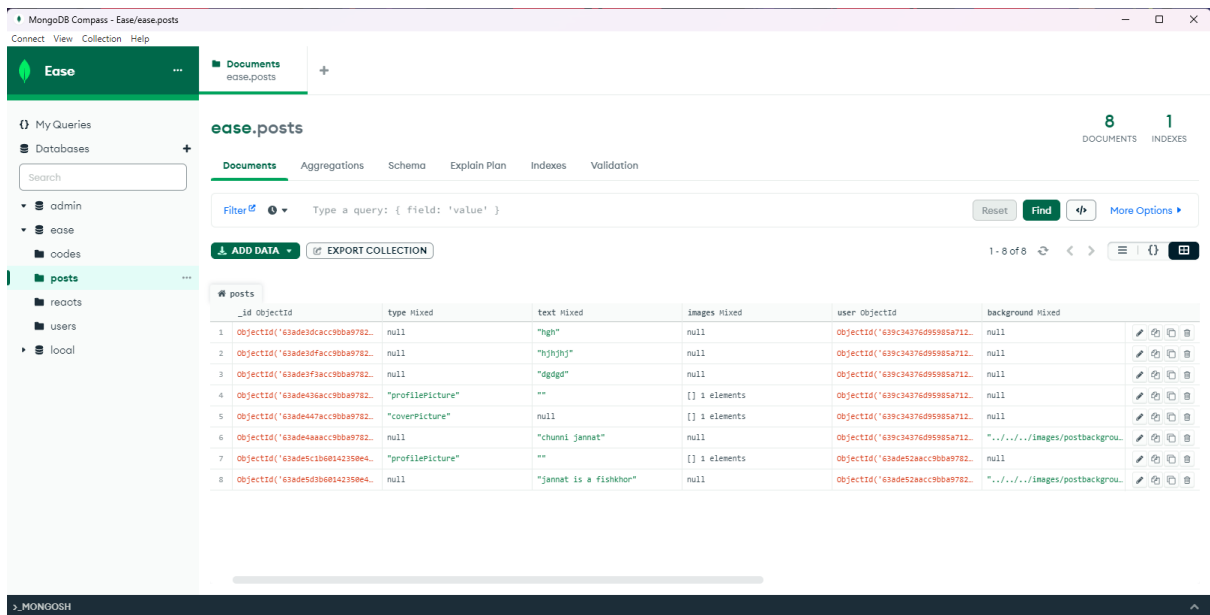


Figure 5.1.3.2: Backend Post

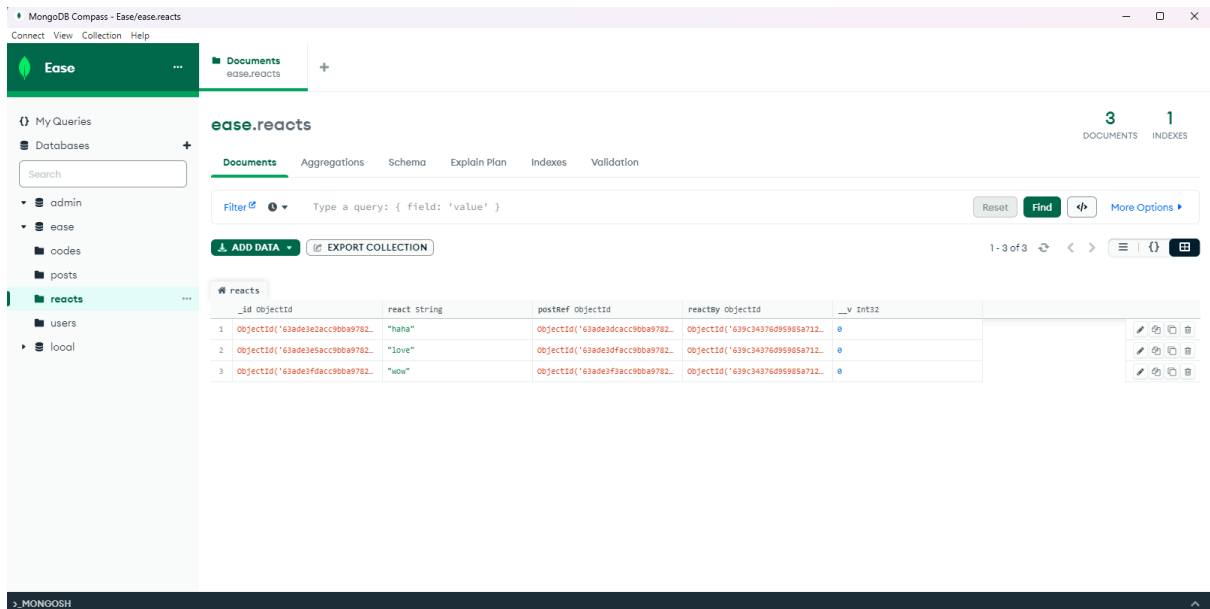


Figure 5.1.3.3: Backend React



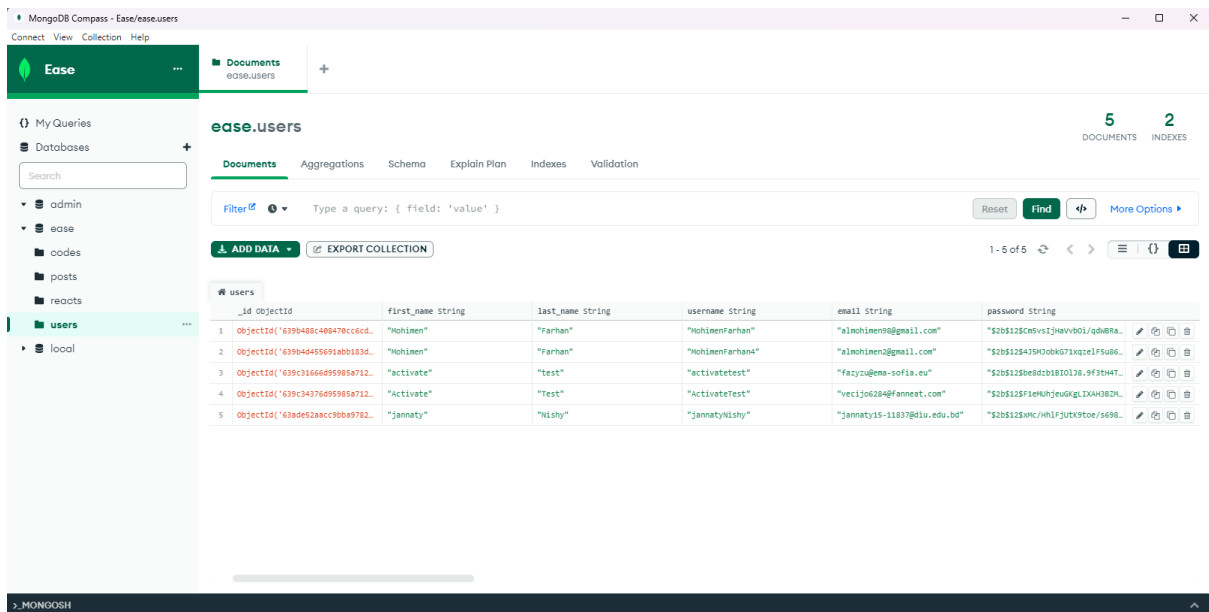


Figure 5.1.3.4: Backend Users

## 5.2 Implementation and Interaction

A software system's design specifies its parts and how they communicate with one another. There are links everywhere in the real world. The secret to energizing and luring users to a framework is participation. Additionally, we strive to make our systems as user-friendly as feasible. As was already said, we also incorporate a few extraordinary parts to link our system to a network for student updates and academic information. Our application is properly implemented, and it has a clear connection to the users.

## 5.3 Testing Implementation

Table 5.3: Test Case Table for Ease

Test Case	Test Input	Expected Outcome	Actual Output	Result	Tested On
1.Install application	Tested on Localhost	Successful Install on localhost	Install successfully.	Passed	02-12-2022
2.Registration	Without Registration	To redirect to access the	Imposed the Restriction	Passed	02-12-2022

		preference from home			
3.Username or Id	blank or incorrect username or ID.	to warn that the correct username or ID must be entered.	Showed the warning.	Passed	02-12-2022
4.Password	blank or incorrect password.	to warn that the correct password must be entered.	Showed the warning.	Passed	02-12-2022
5.Send Verification Email	Send Verification email to user	To verify account	Sent Successfully	Passed	02-12-2022
6.Search	Click on the search button	To search people	Showed desired people	Passed	02-12-2022
7.User Login	Input email and password	To show user login	User login Successfully	Passed	02-12-2022
8.User logout	Click logout button	To show logout	logout Successful	Passed	02-12-2022
9.Update profile	Click update profile button, change image	To show the profile update	Profile updated Successfully.	Passed	02-12-2022
10.Post	Click "post" to post something.	To post	Posted Successfully	Passed	02-12-2022
11.Edit post	Edit post on click	To edit post	Edited successfully	Passed	02-12-2022

12.Delete post	Delete post on click	To delete post	Post deleted successfully	Passed	02-12-2022
13.Comment	Comment on click	To post a comment	Commented successfully	Passed	02-12-2022
14.Delete Comment	Delete comment on click	Delete comment on click	Comment deleted successfully	Passed	02-12-2022
15.Add Contacts	Add to contacts	Add to contacts on click	Contacts added successfully	Passed	02-12-2022
16. Privacy policy	Click on the "privacy policy" button.	to show the privacy policy information.	privacy policy information showed successfully	Passed	02-12-2022
17.Navigation Bar	Click Navigation bar	To show navigation	Navigation showed Successfully	Passed	02-12-2022

## 5.4 Test Result and Reports

Test reports must appropriately depict testing accomplishments in order to provide a rapid manner to evaluate testing outcomes. This report makes a link between test results and objections, accurately depicts the working or environmental conditions, documents the knowledge learned during an evaluation effort, and more.

The test case, test input, projected yield, and actual yield are all described in Section 5.4. Finally, we learned what happened, and the test result was highly productive. The customer approved of our application. The supporting components of the program are examined during usability testing.

- How straightforward is the application to use?
- that developing proficiency with the application comes so naturally?
- How helpful is the application to the client?

By doing so, we can draw less clunky conclusions about the findings or extend the benefits of comfort testing to the most remote areas of the client. The software is simpler to use. Applications receive responses from customers even quicker. For the new clients, the data has been compressed. enhanced association UI If you make time to browse more websites, Bangladesh's social site application will be better.

## **CHAPTER 6**

### **IMPACT ON SOCIETY, ETICAL ASPECTS, SUSTAINABILITY**

#### **6.1 Impact on Society**

People often share things online that are personal or that they're struggling with. When you relate, you can show empathy by supporting and encouraging others through messages and comments. Demonstrate to your friends (and even strangers) that you care about their plight and understand where they're coming from. Seeing how others deal with adversity can be motivating and open our eyes to new possibilities. Social media is notorious for bringing up new topics. While many conversations (or arguments) may appear divisive and contentious, they can bring up important issues to discuss with people you care about and trust.

#### **6.2 Ethical Aspects**

Utilizing this app will improve communication between users who are sharing problems. Users will be inspired to assist others on this platform because they will gain something from doing so. They can live a comfortable life and assist others.

#### **6.3 Sustainability Plan**

The majority of this application's users will be social organizations. Organizations can register their management systems through this application. Once registered, users may log in. They will have the ability to register and post. Users must be legitimate to login here.

## **CHAPTER 7**

### **CONCLUSION AND FUTURE SCOPE**

#### **7.1 Discussion and Conclusion**

This application allows users to share their problems. Since 2020, we have been working on this project to make it fruitful, but the journey has not been easy. I have gained some knowledge about various technology, the book business, and how things operate. I intend to launch this web application as a startup and create a business run by and for the people.

#### **7.2 Scope for Further Developments**

A few thoughts and highlights can be considered future work for this venture. These highlights are summarized in the following areas:

- Doctor, Patient, Scribe (Profile)
- Anonymous (Conditional)
- Doctor Consult (Text/Video)
- Paid patient for text checkup
- Online consult payment
- Consult the documentation writing page for scribes.

## APPENDIX

### 8.1 Appendix: Project Reflection

In order to complete our final project, we increased our knowledge and expertise over the course of the past year. We worked hard to finish the final project, which took a lot of time and effort. We had no idea how to conclude the project when we first started working on it. But if we have a solid plan, we can complete this project. Supervisor ma'am is always available to assist us if we need her. Finally, we want to thank Almighty Allah and our respected supervisor, **Ms. Afsara Tasneem Misha**, for their constant support and helpful guidance throughout the session.

Name	Description
HTML	Hyper Text Markup Language. HTML is the standard markup language for creating Web pages. HTML describes the structure of a Web page. HTML consists of a series of elements. HTML elements tell the browser how to display the content [6].
CSS	Cascading Style Sheets (CSS) is a stylesheet language used to describe the presentation of a document written in HTML or XML [7].
React.js	The React.js framework is an open-source JavaScript framework and library developed by Facebook. It's used for building interactive user interfaces and web applications quickly and efficiently with significantly less code than you would with vanilla JavaScript [8].
Node.js	It is used for server-side programming, and primarily deployed for non-blocking, event-driven servers, such as traditional web sites and back-end API services, but was originally designed with real-time, push-based architectures in mind.

MongoDB	MongoDB is an open-source NoSQL database management program. NoSQL is used as an alternative to traditional relational databases. NoSQL databases are quite useful for working with large sets of distributed data. MongoDB is a tool that can manage document-oriented information, store or retrieve information [9].
Express.js	What Is Express JS? Express is a node js web application framework that provides broad features for building web and mobile applications. It is used to build a single page, multipage, and hybrid web application. It's a layer built on the top of the Node js that helps manage servers and routes



## REFERENCES

- [1] GitHub, available at <<<https://github.com/>>>, last accessed on 06-11-2022 at 12:00 PM.
- [2] Stack overflow, available at <<<https://stackoverflow.com/>>>, last accessed on 05-02-2022 at 8:00 PM
- [3] LinkedIn, available at <<<https://www.linkedin.com/learning/paths/explore-app-development-with-the-mern-stack/>>>, last accessed on 05-02-2022 at 8:00 PM
- [4] Programming Hero, available at <<<https://web.programming-hero.com/>>>, last accessed on 22-11-2022 at 2:00 AM
- [5] YouTube, available at <<<https://www.youtube.com/>>>, last accessed on 22-12-2022 at 2:00 AM
- [6] HTML tutorials, available at << <https://www.w3schools.com/html/>>>, last accessed on 11-10-2022 at 10:00pm
- [7] CSS tutorials, available at << <https://www.w3schools.com/css/>>>, last accessed on 11-10-2022 at 10:00pm
- [8] React.js tutorials, available at << <https://reactjs.org/tutorial/tutorial.html> >>, last accessed on 11-10-2022 at 10:00pm
- [9] MongoDB, available at <<<https://www.mongodb.com/docs/atlas/>>>, last accessed on 21-12-2022 at 11:00pm

DESIGN AND DEVELOPMENT OF AN WEB-BASED SOCIAL APPLICATION NAMED EASE BY MD. MOHIMEN AL ISLAM FARHAN (ID: 183-15-11904) AND JANNATY AKTER NISHY (ID: 183-15-11837)

ORIGINALITY REPORT

<b>24%</b>	<b>20%</b>	<b>1%</b>	<b>14%</b>
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

PRIMARY SOURCES

<b>1</b>	<b>dspace.daffodilvarsity.edu.bd:8080</b> Internet Source	<b>11%</b>
<b>2</b>	<b>Submitted to Fiji National University</b> Student Paper	<b>2%</b>
<b>3</b>	<b>Submitted to Daffodil International University</b> Student Paper	<b>2%</b>
<b>4</b>	<b>www.ijarse.com</b> Internet Source	<b>1%</b>
<b>5</b>	<b>Submitted to Durban University of Technology</b> Student Paper	<b>1%</b>
<b>6</b>	<b>www.simplilearn.com</b> Internet Source	<b>1%</b>
<b>7</b>	<b>Submitted to Leeds Trinity and All Saints</b> Student Paper	<b>1%</b>
<b>8</b>	<b>www.ijres.org</b> Internet Source	<b>1%</b>