Tribhuvan University

Faculty of Humanities and Social Sciences

Blogging System

A PROJECT REPORT

Submitted To:

Department of Computer Application

Ratna Rajyalaxmi Campus

In partial fulfillment of the requirement for the Bachelor in Computer Application

Submitted By:

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Under the Supervision of

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Faculty of Humanities and Social Science

Ratan Rajya Laxmi Campus

SUPERVISOR'S RECOMMENDATION

I hereby recommend that this project prepared under my supervision by BISHAM RAJ PANDEY and BISHAL REGMI entitled "Online Blogging System" in partial fulfillment of the requirements for the degree of Bachelor of Computer Application is recommended for the final evaluation.

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Bipin Timilsina

SUPERVISOR

Department of Computer Application

Pradarshani Marg, Kathmandu

Tribhuvan University

Faculty of Humanities and Social Sciences

Ratan Rajya Laxmi Campus

LETTER OF APPROVAL

This is to certify that the project prepared by BISHAM RAJ PANDEY and BISHAL REGMI entitled "Online Blogging System", In partial fulfillment of the requirements for the degree of Bachelor in Computer Application has been evaluated in our opinion it id satisfactory in the scope and quality as a project for the required degree.

SIGNATURE of Supervisor	**SIGNATURE of HOD/Coordinator**
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Bipin Timilsina Lecturer, Project Supervisor Ranta Rajyalaxmi Campus	Mr. Bhupendra Ram Luhar Coordinator Department of BCA Ratna Rajyalaxmi Campus
SIGNATURE of Internal Examiner	**SIGNATURE of External Examiner**
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ACKNOWLEDGEMENT

The project detailed in the report was carried out and presented at Ratna Rajya Laxmi Campus, under the Faculty of Humanities and Social Sciences at Tribhuvan University of Technology, as a part of the Bachelor of Arts in Computer Application program. This project stands as evidence not only of technical skill but also of teamwork and performance in the face of various challenges. The successful completion of this endeavor is owed in large part to the invaluable assistance provided by experts.

Furthermore, we express our appreciation to the instructors of the Department of Computer Application for generously sharing their knowledge, which greatly contributed to the development of this project. We are also grateful to our friends for their steadfast support, and to the participants whose feedback helped improve our project.

We are deeply thankful to our supervisor, Mr. Bipin Timilsina, a lecturer whose guidance was instrumental in the success of this project. We also appreciate the support of our department coordinator, Mr. Bhupendra Ram Luhar.

Lastly, our heartfelt gratitude goes to our families, friends, and mentors. Without their unconditional love, care, and support, this achievement would not have been possible

ABSTRACT

The purpose of the "Online Blogging System" is to make it easy for users to create and manage their blogs. This system aims facilitate the creation of blogs, posting of comments and communication. The required software and hardware are readily available and simple to use.

Key Words:

User-A person who can use the system

Moderator-A person who moderates and manages content om the site

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1 INTRODUCTION

1.1 Background

Online Blogging System is a system that offers a platform for users to share posts and information. This system allows readers to access blogs from wide range of topics including Entertainment, National and International events etc. The content on this site can be posted by anyone and will be moderated by the Moderators. The Online Blogging System is designed to address the limitations of other methods by providing a user-friendly web-based platform. Users do not need any specialized knowledge to use the system, making it accessible to a global audience. It serves as a valuable source of information for those seeking to gain information on specific topics as well as wanting to record their thoughts and ideas and share them with the world.

1.2 Problem Statement

The emergence of blogging systems is prompted by several pressing issues in the current existing systems. Some of them are

- The difficulty in creating and reading blog posts
- The prevalence of dishonest information
- The difficulty in communication between users

1.3 Objectives

The objectives of Online Blogging system are:-

- To provide a platform for blog creation
- To prevent inappropriate contents using user reports
- To provide an easy method for communication with the users

1.4 Scope and Limitation

1.4.1 Scope

The scopes of Online Blogging system are:-

- Facilitate content creation
- Facilitate information sharing
- Help in communication with users

1.4.2 Limitation

The limitations of Online Blogging system are:-

- Lack of accessibility and reach
- Limited monetization options for users

1.5 Report Organization

The report can be organized into 5 chapters which are given below:

Chapter 1: Includes introduction includes the brief introduction of the system, statement of problem, objectives, scope and limitation.

Chapter 2: Includes background study and literature review includes the previous work related to the systems and similar works were studied and are summarized.

Chapter 3: Includes system analysis and design includes different feasibility analysis and designed system architecture, system flow diagram, dataflow diagram.

Chapter 4: Includes implementation and testing includes various implementation method and tools and also contains description of testing.

Chapter 5: Includes conclusion and future recommendations includes outcomes of the system, conclusion to the system and description about what features can be added in the future.

2 BACKGROUND STUDY AND LITERATURE REVIEW

2.1. Background Study

Blogs, short for weblogs, are online platforms where individuals or groups can share their thoughts, opinions, and experiences in a chronological format. Dating back to the late 1990s, early blogging sites such as LiveJournal, Blogger, and WordPress paved the way for the popularity of blogging as a form of personal expression and information dissemination. These platforms offered users the ability to publish content easily and interact with readers through comments and sharing features. Over time, blogging has evolved into a diverse and dynamic medium, with blogs covering a wide range of topics including lifestyle, fashion, technology, travel, and more. Today, blogging remains a popular means of communication and storytelling, with modern platforms offering advanced features and customization options to cater to the needs and preferences of bloggers and readers alike.

2.2. Literature Review

Blogging systems have undergone significant evolution since their inception in the late 1990s, transforming the landscape of online communication and content creation. Early platforms like LiveJournal, Blogger, and WordPress paved the way for the popularity of blogging as a mainstream medium for sharing thoughts, opinions, and experiences [1]. These platforms democratized content creation by offering simple yet effective tools for publishing and managing blogs.

User engagement and community building emerged as critical aspects of blogging platforms' success, with features like comments sections and social sharing buttons facilitating interaction and collaboration among users [2]. Additionally, the integration of social media functionalities into blogging platforms has further enhanced user engagement and content dissemination [3]

Monetization strategies have become increasingly important for bloggers seeking to generate revenue from their content. While advertising and affiliate marketing remain

popular options, issues such as ad blockers and declining ad rates pose challenges to monetization efforts [4] .Moreover, accessibility barriers such as language and device compatibility may limit the reach and impact of bloggers, particularly in underserved regions.

Overall, blogging systems continue to evolve in response to changing user needs, technological advancements, and cultural shifts. By understanding the key themes and trends in the development and usage of blogging systems, researchers and practitioners can better address the challenges and opportunities facing this dynamic medium.

3 SYSTEM ANALYSIS AND DESIGN

3.1 System Analysis

System analysis involves collecting and understanding information about the Online Blogging System to identify problems and suggest improvements. It's a problem-solving process that requires communication between users and developers. The analyst closely examines the current system, identifying issues and proposing solutions. These proposals are compared with the existing system, and the best one is chosen after user approval. Preliminary study gathers facts and conducts feasibility studies to guide further analysis and decision-making.

3.1.1 Requirement Analysis

Requirement analysis was performed by examining existing systems. Systems like blogger, medium and Quora were examined and studied to gather requirements for the system.

3.1.1.1 Functional Requirement

Function requirements define the fundamental actions that system must perform. The functional requirements for the system are divided into two categories, moderators and users as well as further details, referred to as use cases. The Use case Diagram of the system is given below

Figure 1:Use Case Diagram for Blogging System

3.1.1.2 Non-Functional Requirement

- Performance: The system should be responsive and able to handle a large number of concurrent users without significant slowdowns or interruptions. This includes fast loading times for web pages, quick response to user interactions, and efficient database queries.

- Security: The system should have robust security measures in place to protect user data, prevent unauthorized access, and mitigate potential security threats such as hacking or data breaches. This includes implementing encryption protocols, secure authentication mechanisms, and regular security audits.

- Scalability: The system should be designed to accommodate growth in both user base and content volume over time. This involves ensuring that the infrastructure can scale horizontally by adding more servers or resources as needed, as well as optimizing code and database structures to handle increased load without sacrificing performance.

3.1.2 Feasibility Analysis

A feasibility study aims to objectively and rationally uncover the strengths and weaknesses of an existing business or proposed venture, opportunities and threats present in the natural environment, the resources required to carry through, and ultimately the prospects for success.

3.1.2.1 Technical Feasibility

Since the project is design with PHP as code behind and MySQL as backend it is easy to install in the systems whenever needed. It is more efficient, easy and user friendly to understand by almost everyone. Huge amount of data can be handled efficiently using MySQL as backend. Hence this project has good technical feasibility.

3.1.2.2 Operational Feasibility

Operational feasibility pertains to the effectiveness with which the system addresses issues and capitalizes on opportunities as outlined during the system's scope definition. The project is deemed to be feasible to operate.

- The current mode of operation provides good throughput and response time.
- The organization will gain significant benefits from the proposed system.
- The resources available are used to the maximum capacity to deliver quality system on time.

3.1.2.3 Economic Feasibility

This seeks to assess the positive economic advantages that the proposed system will offer to the organization.

- The system is cost effective
- The efficient management of rehouses will diminish the cost of this system
- The benefits of this system will outweigh the costs.

3.1.2.4 Scheduling Feasibility

This seeks to assess the time that the proposed system will take to develop and implement.

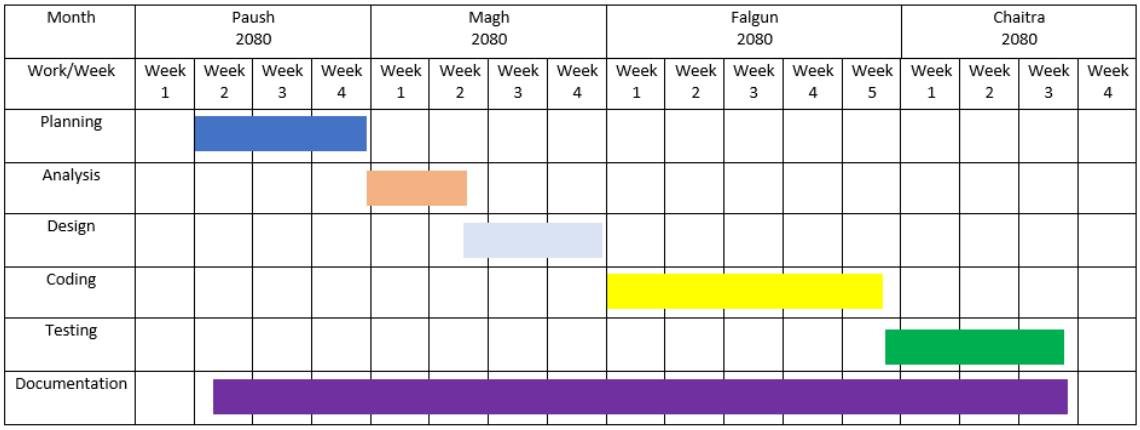


Figure 2:Gantt Chart of Blogging System

3.1.3 Data Modeling

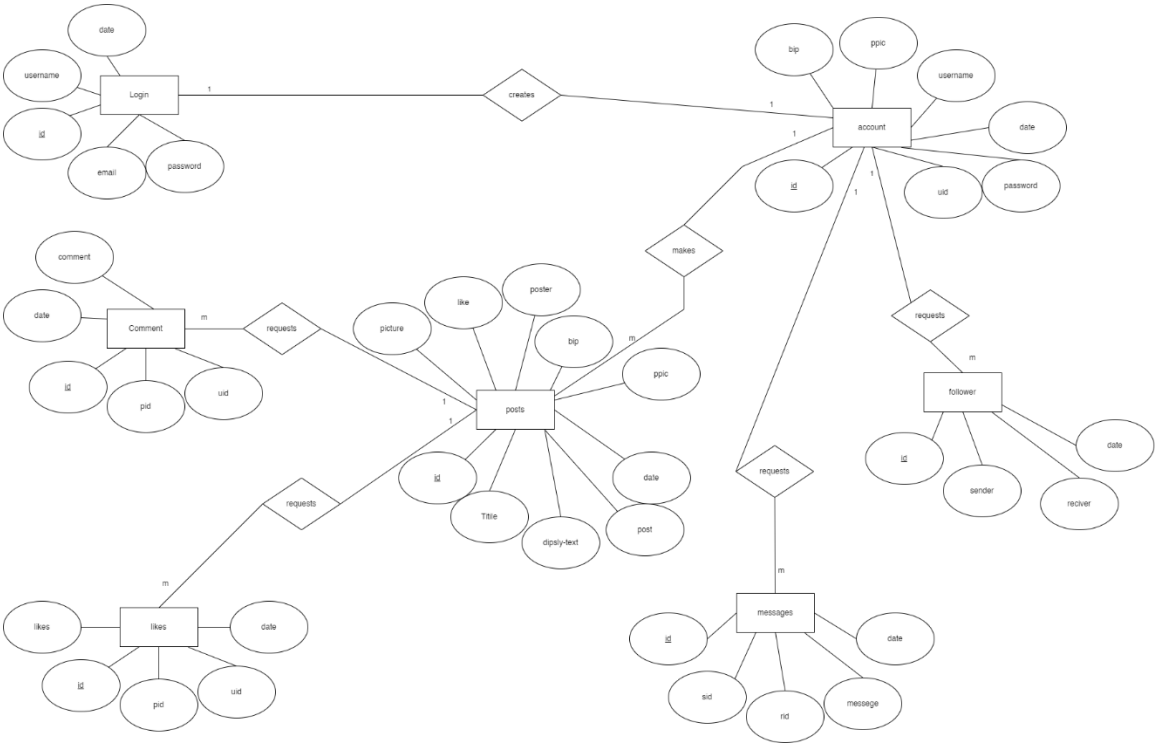


Figure 3:Entity Relation Diagram of Blogging System

The Entity Relation diagram of the Blogging system is shown above

3.1.4 Process Modeling

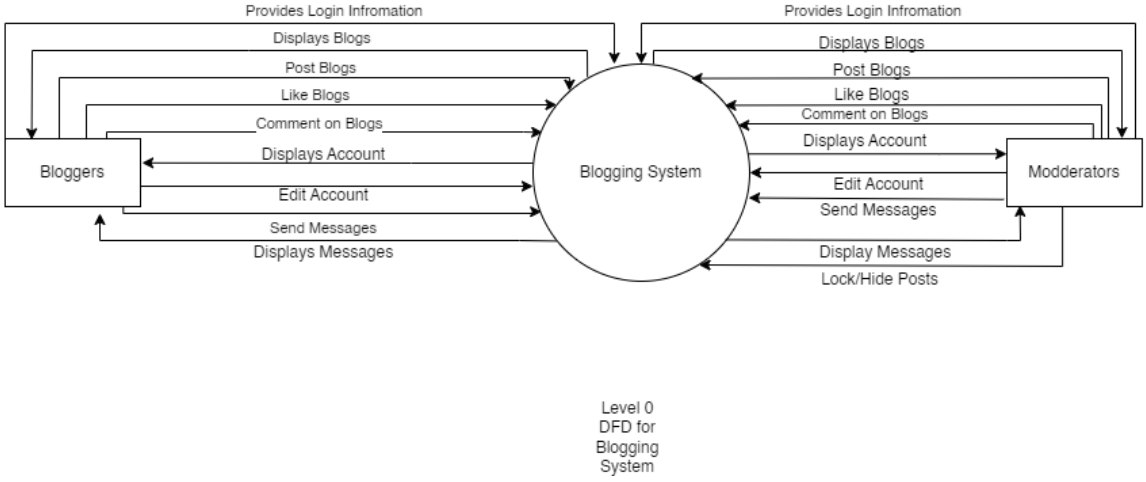


Figure 4:Context Diagram of Blogging System

The context diagram of the Blogging system is given above

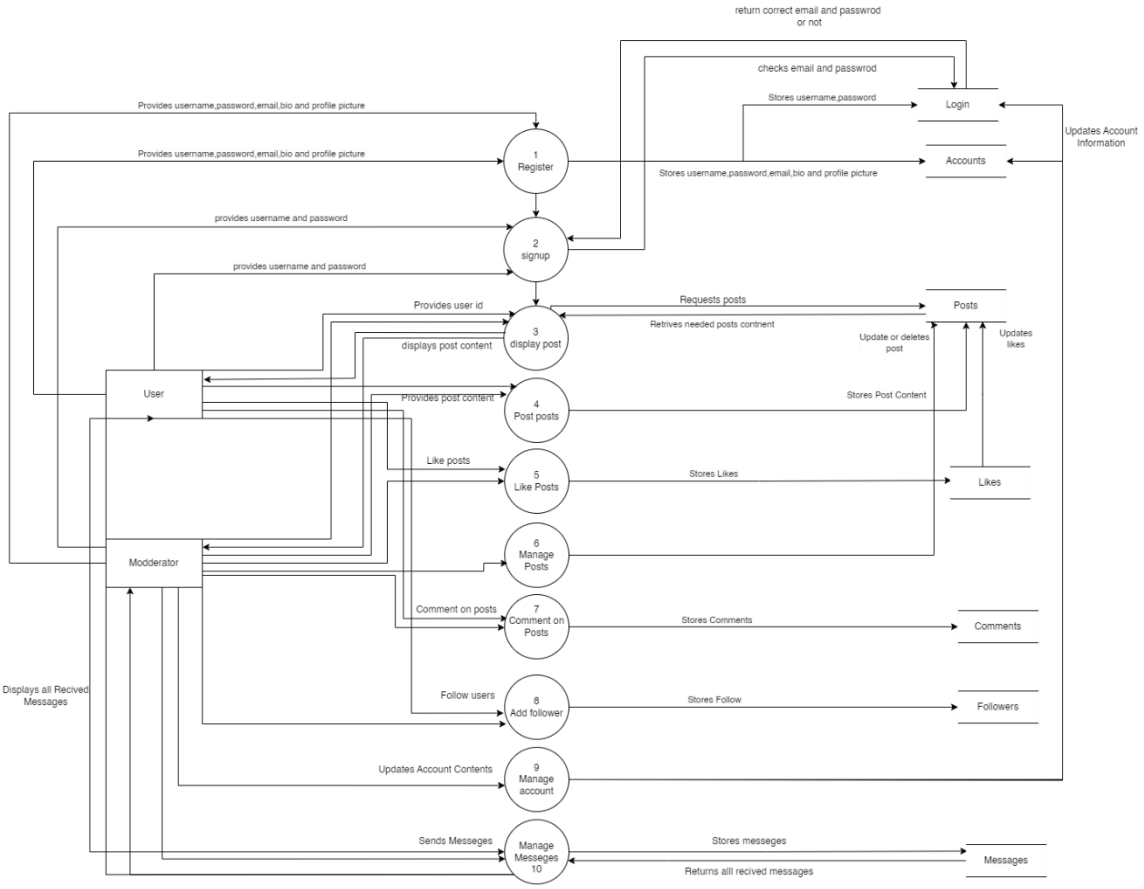


Figure 5:Level 1 DFD of Blogging System

The level 1 DFD of the Blogging system is given above

3.2 System Design

System design is the most creative and challenging. The System Design Document describe the system requirements, Operating, system and subsystem architecture, files and database design, input formats, output layouts, human-machine interface, detailed design, processing logic, and external interface.

3.2.1 Architectural Design

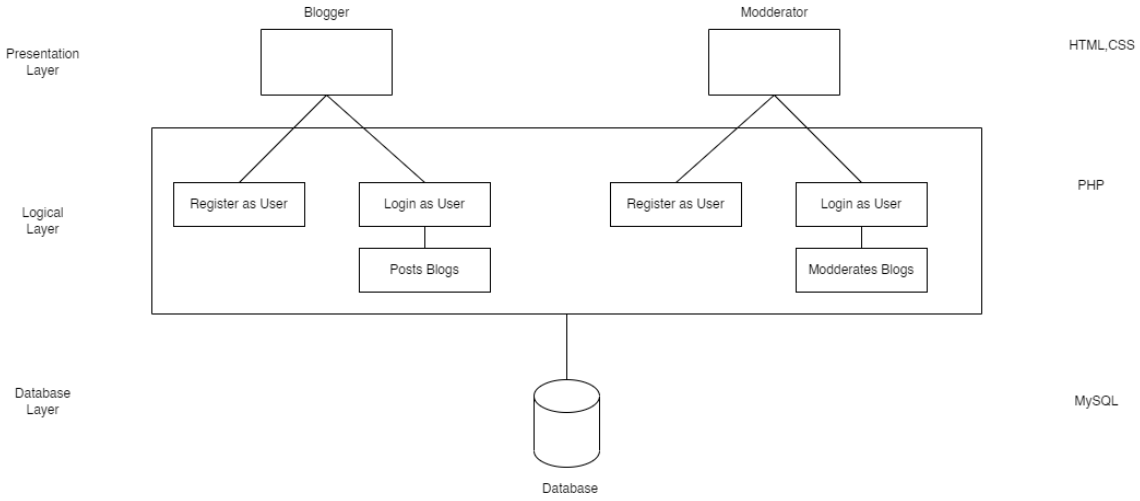


Figure 6:Architectural Design of Blogging System

The Architectural Design of the Blogging system is given aboves

3.2.2 Database Schema Design

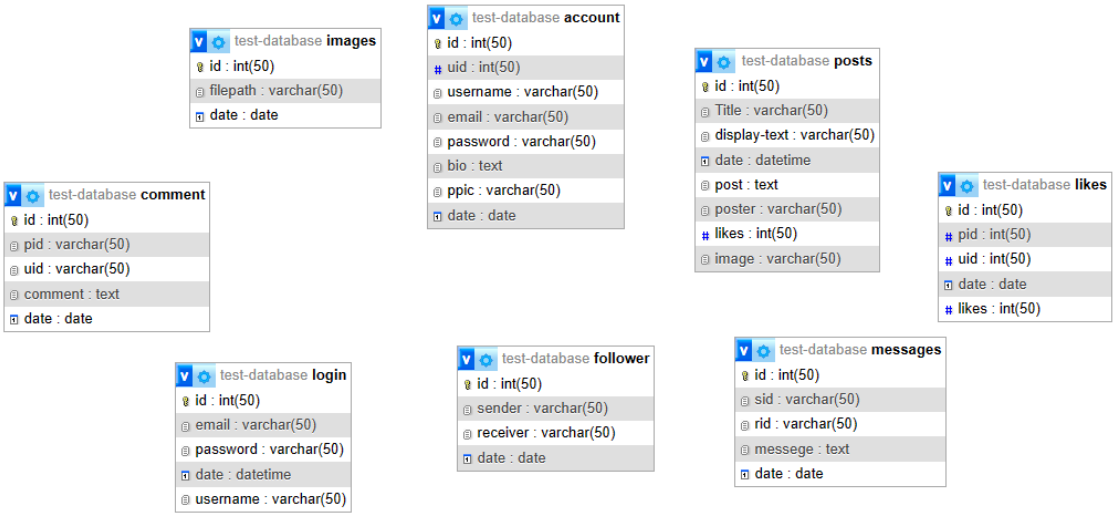


Figure 7:Database Schema Design of Blogging System

3.2.3 Interface Design

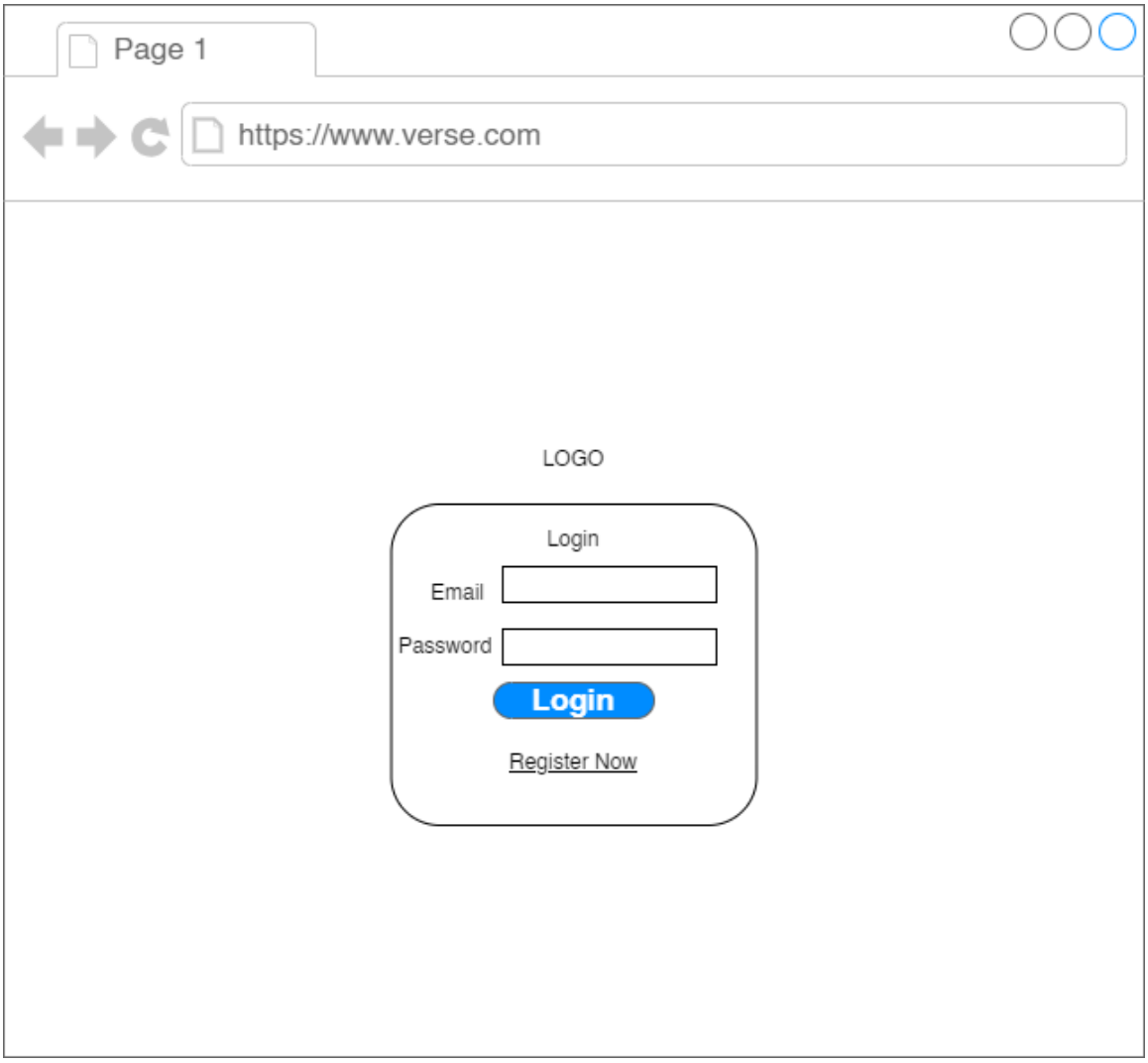


Figure 8:UI Design of Login page of Blogging System

The interface of the login page is shown in the above figure. Here, the user will login if the users email and password are correct and the login button is pressed

Figure 9:UI Design of Register page of Blogging System

The interface of the Register page is shown in the above figure. Here, the user will register if all relevenant information are presented and the register button is clicked

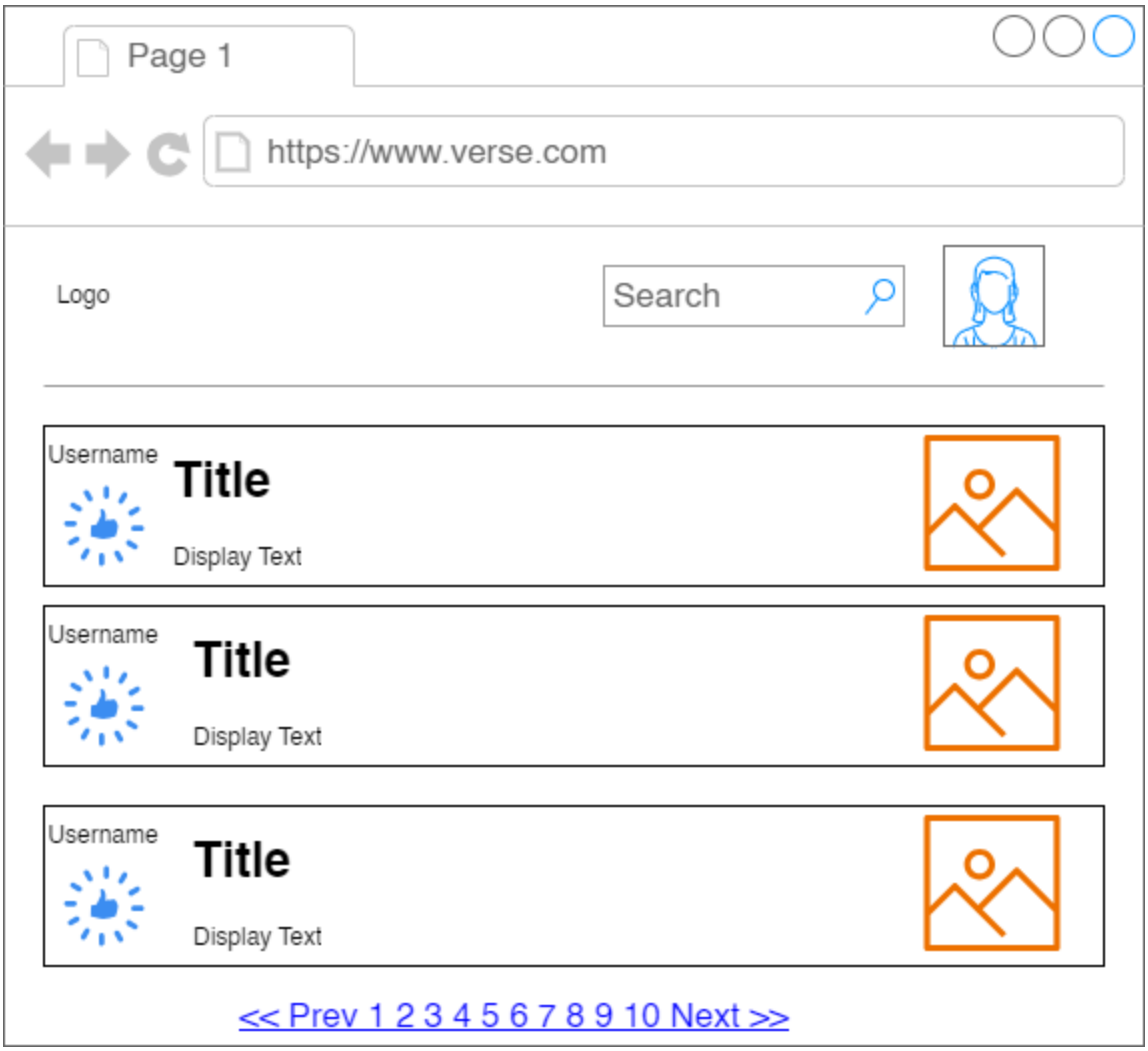


Figure 10::UI Design of Display page of Blogging System

The interface of the display page is shown in the above figure. Here, the user will be shown the posts of the users they have followed.

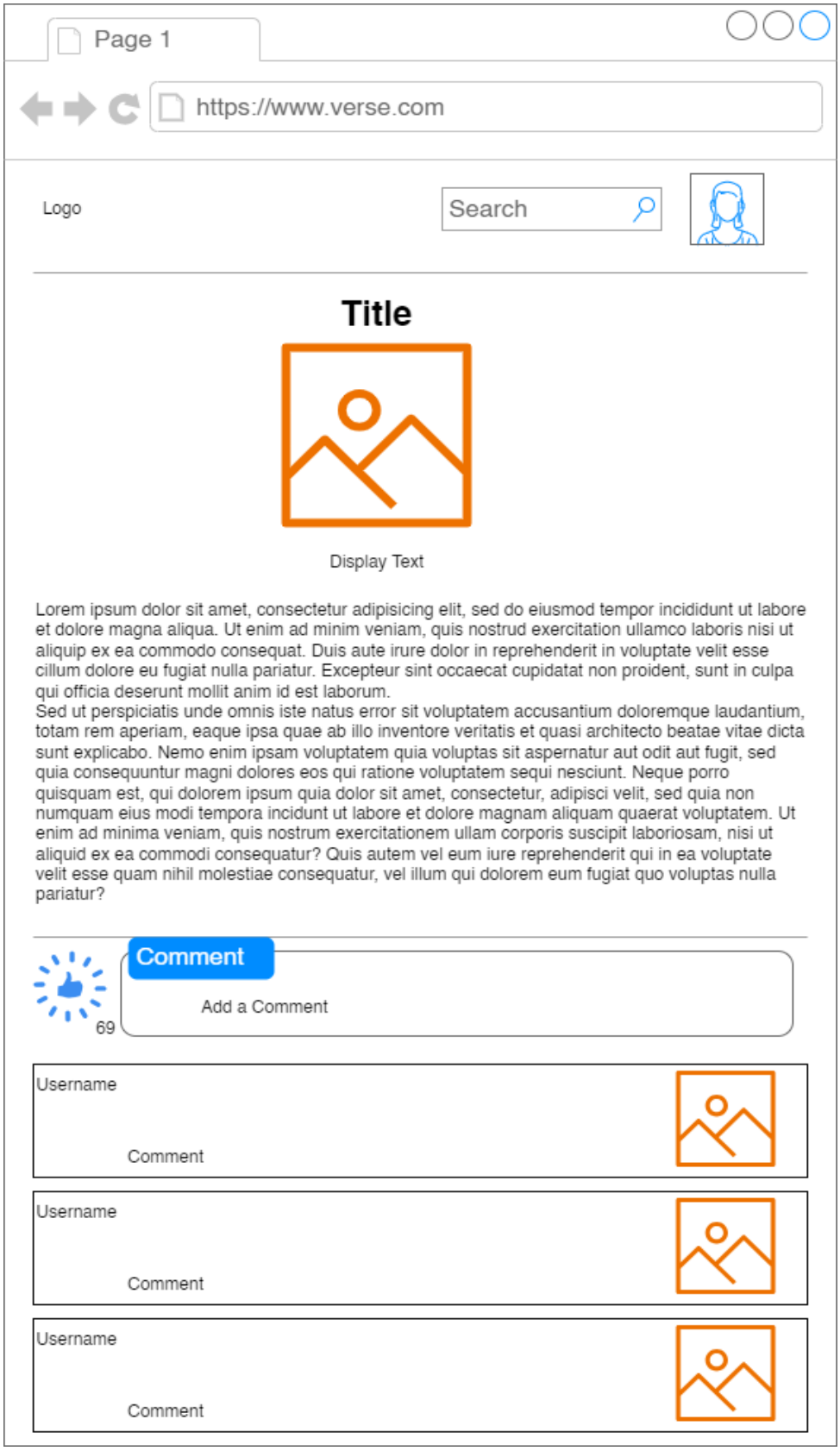


Figure 11::UI Design of Display-Post page of Blogging System

The interface of the display post page is shown in the above figure. Here, the user will see the post details.

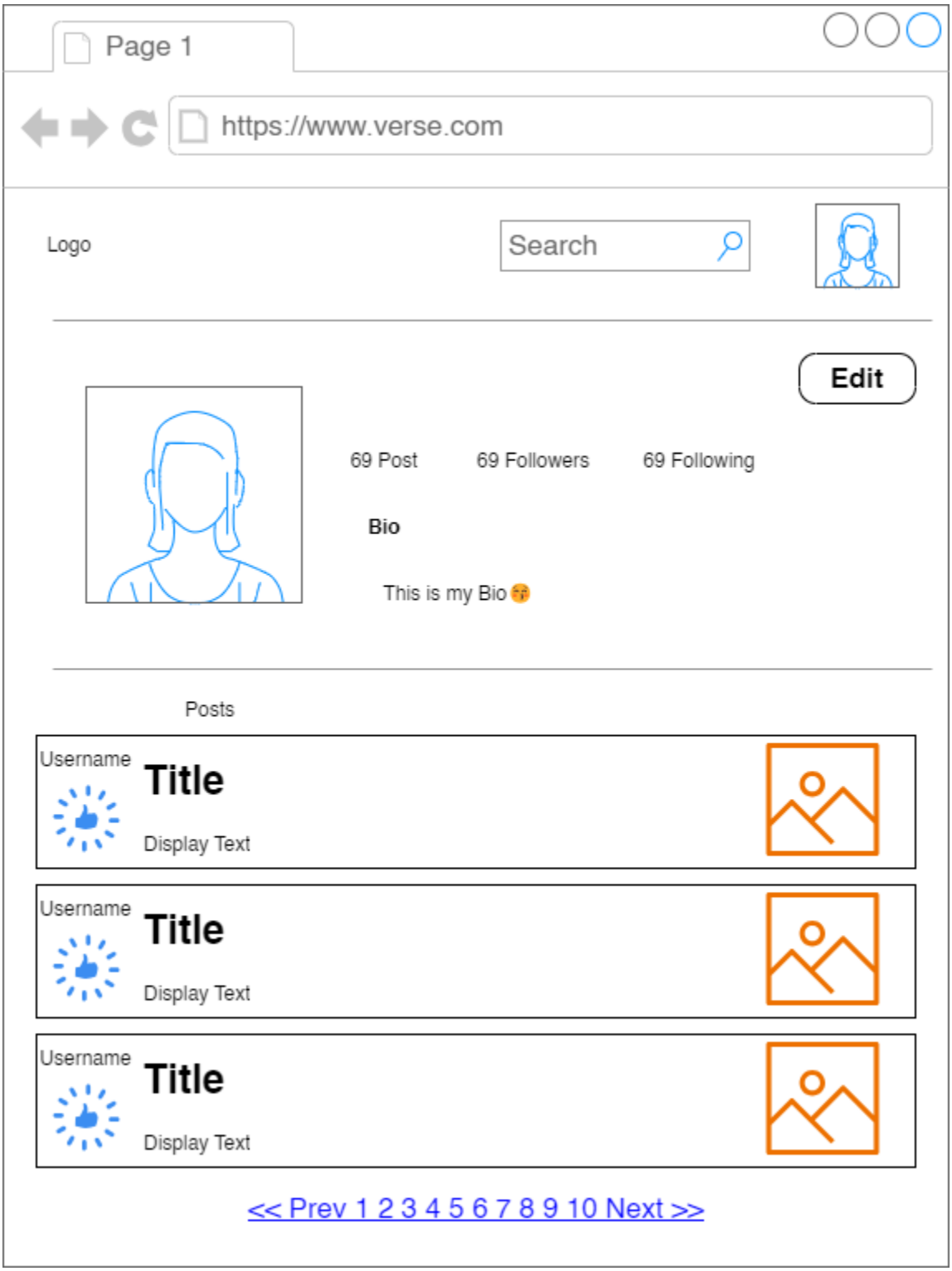


Figure 12::UI Design of Account page of Blogging System

The interface of the account page is shown in the above figure. Here, the user will be shown the users details and the posts they have made.

3.2.4 Physical DFD

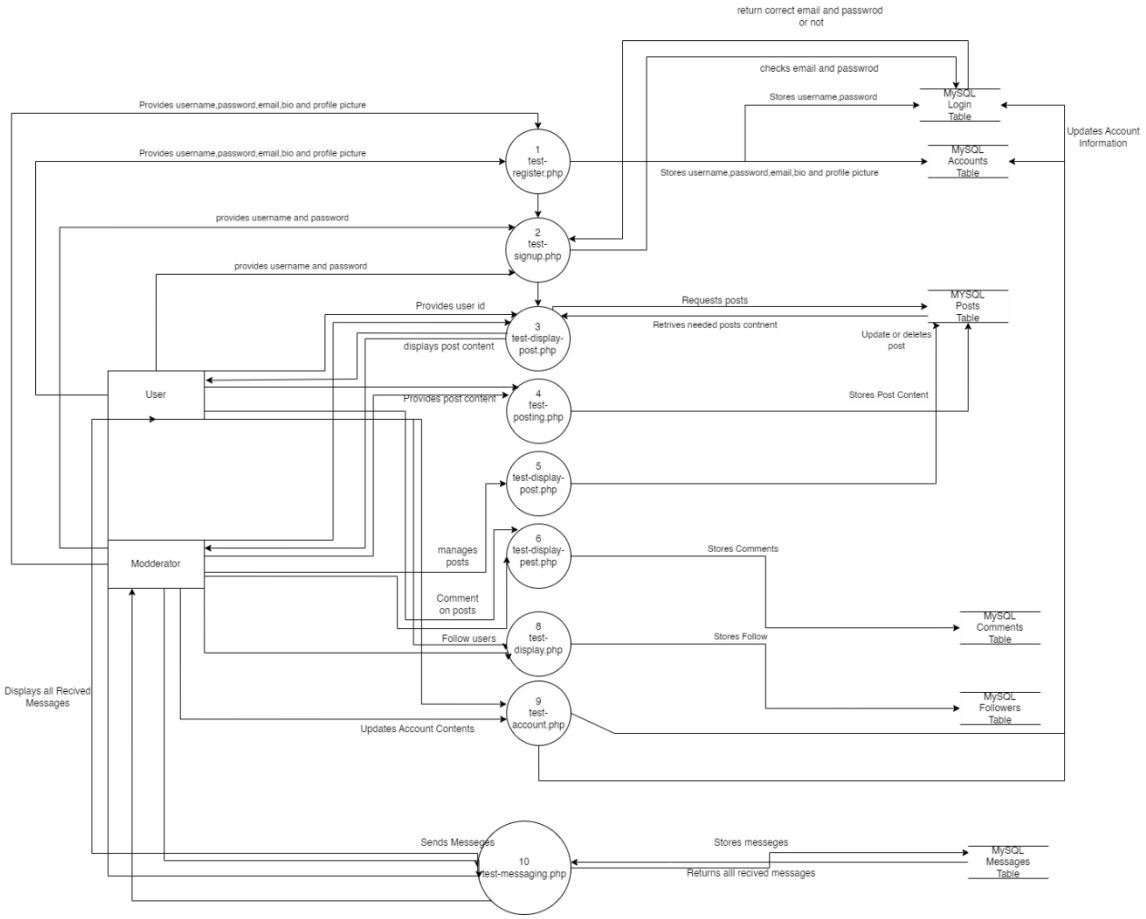


Figure 13:Physical DFD of Blogging System

The physical DFD of the Blogging system is given above

4 Implementation and Testing

4.1 Implementation

The implementation phase involves the application of design specifications done before. The implementation involves coding of the system designs if this project, systems testing is live and running. During implementation we start coding according to our requirement.

4.1.1 Tools Used

This project is developed using the tools, which are most suited for development of the PSTU web-based system. These tools are as follows:

- HTML (For developing the basic structure of the site)
- CSS (for designing and styling the html page)
- JavaScript (for making the site more responsive and adding additional functions)
- PHP (For interacting with database)
- MYSQL (For database Storage)

4.1.2 Implementation Details of Modules

There are various modules present in this system. They are

- Login Module

  The Login module facilitates the login process for registered users. The user provides their username and password which will lead them to the system.
- Register Module

  The Register module facilitates the registration process for new users. The user provides information such as username, email, profile picture etc.
- Post Module

  This module allows the user to post posts. The user provides information such as title, text image which is then stored and displayed to other users.

- Display Module

  This module allows the user to see the post other users have posted. This allows users to read other people's blogs

- Account Module

  This module allows the user to see their own account. This allows the user to change their username, password, profile picture etc.

4.2 Testing

The testing section is accomplished to validate the News portal System. The News Portal System is examined to test if the final system can work in keeping with what we have been waiting for and is free from any programming and logical errors. It additionally makes sure whether or not all of the system and requirements are met or not.

4.2.1 Test Cases for Unit Testing

Unit testing is a software program development method in which the smallest testable components of an application, known as units, are individually and independently scrutinized for correct operation. Below are the numerous tables for distinctive test case.

Table 1:Test case for Register module

S.N	Test Case	Input	Expected Outcome	outcome
1	Navigate to Register page	Path: http://localhost/codes/4th%20sem/unit-2-php/test/test-register.php	Register page should open	As expected, Member is navigated to register in page of system
2	Provide own details	Email, username, password, profile picture, bio	Credential should be entered	As expected,
3	Click register Button	Button clicked	User should be registered	As Expected,

Table 2:Test case for Login module

S.N	Test Case	Input	Expected Outcome	outcome
1	Navigate to Login page	Path: http://localhost/codes/4th%20sem/unit-2-php/test/test-login.php	Login page should open	As expected, Member is navigated to login page of system
2	Provide details	Email and password	Credential should be entered	As expected,
3	Click login Button	Button Clicked	User should log in	User is logged in
4	Provide wrong email	Wrong email and password	Credential should be entered	As expected,
5	Navigate to register page	Link to go to register page is clicked	Register page should open	As expected, Member is navigated to register page of system

Table 3Test Case for Dispaly Post Module

S.N.	Test case	Input	Expected Outcome	Output
1	Redirected from test case	Button clicked	Success	As expected

2	Like post	Button clicked	If previously like unlike and vise versa	As expected
3	Display comments	Button Click	Comment should be displayed	As expected
4	Post comments	Comment text	Comment should be posted	As expected

Test Cases for System Testing

System Testing is a from of software testing that is executed on a complete integrated system to assess the compliance of the system with the corresponding requirements.

Table 4:System Testing

Sn	**Test Case**	**Test Data**	**Expected Outcome**	**outcome**
1	Check Register	Username, password, email Profile picture, bio	User register	As expected
2	Check Login	Email, password	User login	As expected
3	Check display		Displays posts of all followed people	As expected
4	Check Posts	Title, display text, actual text, image	Post created and saved	As expected
5	Like posts	Button clicked	Post liked if unliked before, unliked if liked before	As expected

6	Find other users	username	Redirected to searched user account	failure
7	Comment on post	Comment text	Comment added	As expected

5 Conclusion and Future Recommendations

5.1 Lesson Learnt

In creating the online blogging system, we've learned some important lessons. First, listening to users and making changes based on their feedback is crucial for improving the platform. Second, ensuring accessibility for all users, including those with disabilities, is essential. Third, having effective tools for content moderation helps maintain a positive community atmosphere. Lastly, staying adaptable and keeping up with trends is key for the platform's success in a fast-changing digital world.

5.2 Conclusion

In conclusion, the development of an online blogging system represents a significant opportunity to harness the power of digital technology for creative expression, information sharing, and community building. By providing users with user-friendly platforms to publish content, interact with audiences, and explore diverse topics, online blogging systems empower individuals and organizations to amplify their voices and connect with others on a global scale. While challenges such as content moderation, monetization, and accessibility remain, the evolving landscape of blogging continues to offer exciting possibilities for innovation and collaboration. As we move forward, it is essential to prioritize user experience, inclusivity, and ethical practices to ensure that online blogging systems continue to thrive as vibrant and valuable tools for communication and engagement in the digital age.

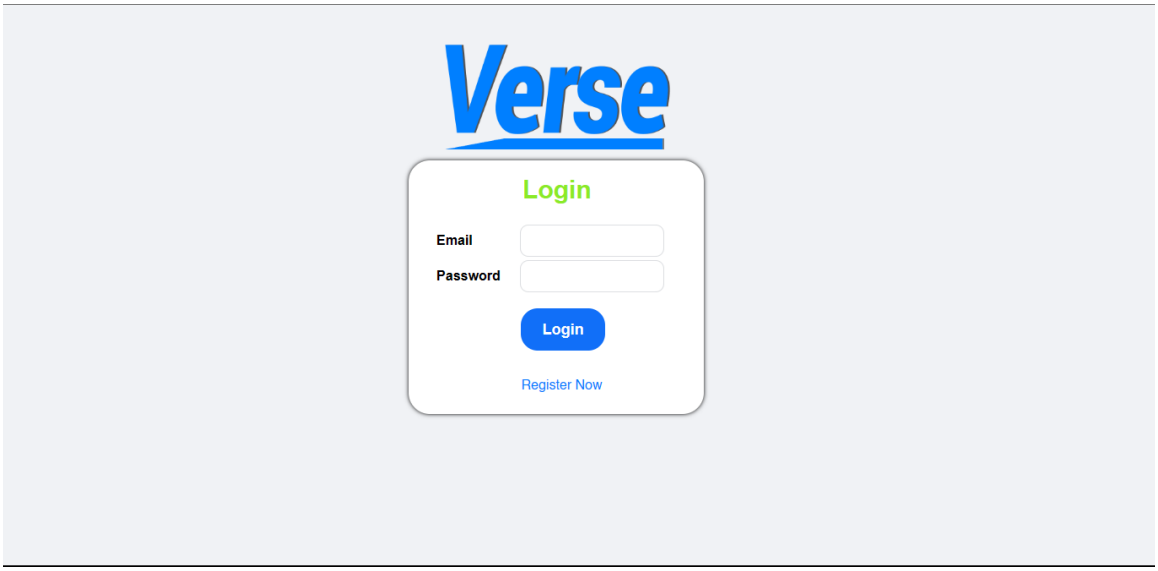
5.3. Future Recommendations

As the Project comes up with some limitation which can be improved in future and further more advancement can also be made. The different features that can be added are as follows:

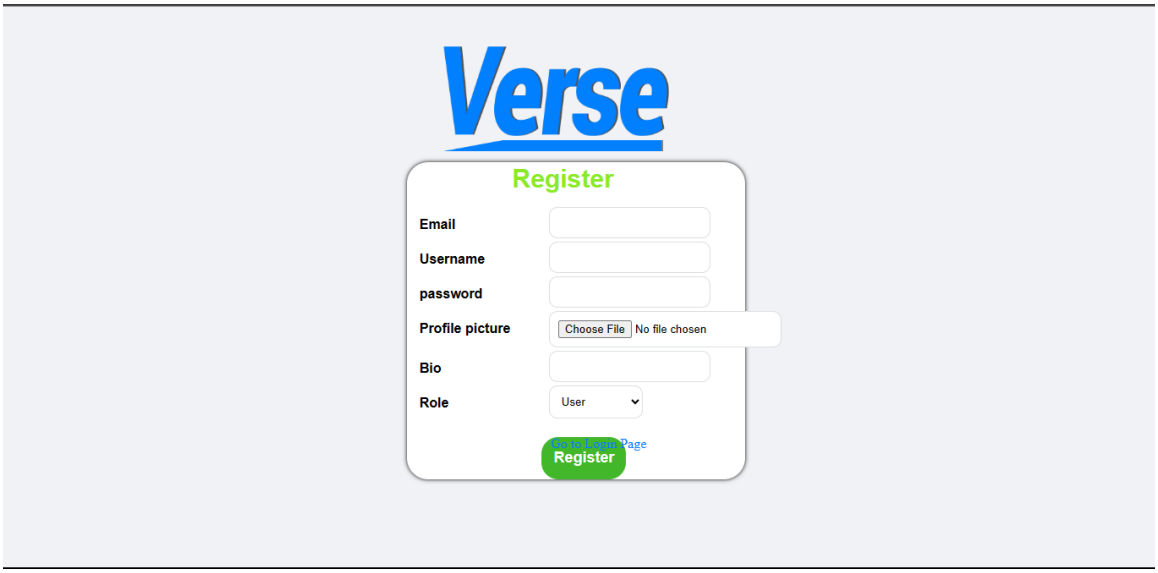
- Videos should also be able to be uploaded
- Live support should be enabled.

APPENDICES

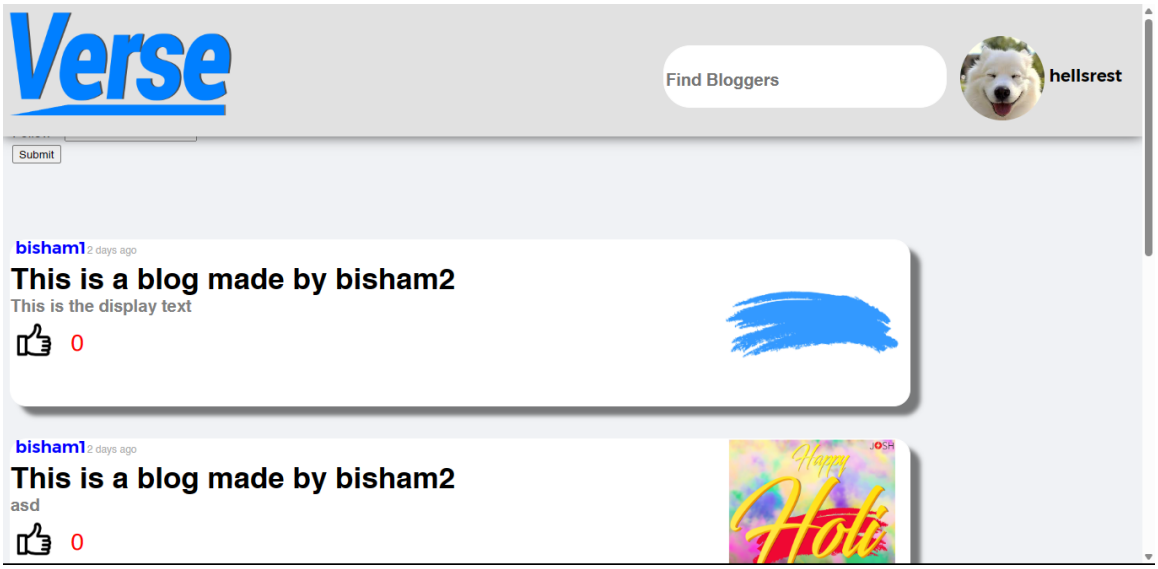
Login Page



Register Page



Display Page



Display Post Page