

CP-III Project Report on

DEVOPS COMMUNITY BLOGGING APPLICATION

at

U. V. Patel College of Engineering



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U.V. PATEL COLLEGE OF ENGINEERING



24/11/2022

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that **Mr. Bareja Daksh** student of **B.Tech. Semester VII (Information Technology)** has completed his full semester on site project work titled “**DEVOPS COMMUNITY BLOGGING APPLICATION**” satisfactorily in partial fulfillment of the requirement of Bachelor of Technology degree of Information Technology Engineering of Ganpat University, Kherva, Mehsana in the year 2022-2023.

Prof. Rachana Modi
College Project Guide

Dr. Devang Pandya
Head, Information Technology

U.V. PATEL COLLEGE OF ENGINEERING



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ABSTRACT

The purpose of Community Blogging Application System is to automate the existing manual system by the help of computerized equipments and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same

Community Blogging Application System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather than concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

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1.INTRODUCTION

1.1 PURPOSE

The main purpose of the Project on “DEVOPS COMMUNITY BLOGGING” is to manage the details of Blogs, Idea, Topic. It manages all the information about Blogs, Content, Blogs. The project is totally built at administrative. The purpose of the Blogs, Idea, Content, Topic. It tracks all the details about the Topics, Entries.

1.2 OVERVIEW

The main aim of this application is to provide a hassle-free accessing of the posted blogs, entries, topics etc. It also used for posting the blogs, editing the blogs, deleting the posted blogs etc. It is also used for viewing and posting the others one's blogs/posts.

1.3 OBJECTIVE

The “DEVOPS COMMUNITY BLOGGING” has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate, and in some cases reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need for the community to carry out operations in a smooth and effective manner. Thus, by this all it proves it is user-friendly. By using this can lead to error free, secure, reliable and fast management system.

1.4 TOOLS AND TECHNOLOGY

Tools:-

Visual Studio Code

Postman(For API Testing)

Technology:-

Programming script: Javascript

Frontend/UI Design: React(v6 and v16)

Backend: Express.js and Node.js (v14.17.4)

Database: MongoDB(1.34.0)

2.FEASIBILITY STUDY

2.1 STUDY OF CURENT SYSTEM

As we seen the new technology and new innovation is growing is day by day so that it is very important to learn new thing So that we can build new technology and by using of that we can give good product to the society.

2.2 Problem and weakened Of Current System

The old manual system was suffering from a series of drawbacks. Since whole of the system was to be maintained with hands the process of keeping, maintaining and retrieving the information was very tedious and lengthy. The records were never used to be in a systematic order. There used to be lots of difficulties in associating any particular transaction with a particular context.

There would always be unnecessary consumption of time while entering records and retrieving records. One more problem was that it was very difficult to find errors while entering the records. Once the records were entered it was very difficult to update these records. The reason behind it is that there is lot of information to be maintained and have to be kept in mind while running the business. For this reasons we have provided features Present system is partially automated, actually existing system is quite laborious as one has to enter same information at three different places.

2.3 Requirement of New System

Existing system is a manual system. It requires lots of file work to be done. It is a time consuming system. All user information is maintained manually. Any searching requires so much effort manually. There is no way of spreading the information so fast and in cheapest manner. In the previous system all information does not get into one place, here people can write whatever they want to write.

2.4 DRAWBACKS OF EXISTING SYSTEM

- 1) Maintaining registers is costly – traditionally documents have been stored in batches and they filed in file cabinets and boxes. A numerical system is assigned specifically a user number assigned to organize the files.
- 2) Error prone – existing system are error prone, since manual work is required. More time is consumed and errors may propagate due to human mistakes.

2.4 BENEFITS OF PROJECT:

- User friendliness
- Minimum time required
- Free of cost

2.5 Technical Feasibility

Technical Feasibility current resources both hardware software along with required technology are analyzed/assessed to develop project. This technical feasibility study gives report whether there exists correct required resources and technologies which will be used for project development. Along with this, feasibility study also analyzes technical skills and capabilities of technical team, existing technology can be used or not, maintenance and up-gradation is easy or not for chosen technology.

We are using visual studio code in which we are developing our project in react(front-end), nodejs(Back-end) and mongodb database. We are pretty familiar about these technologies and our hardware also supports this technology. We are going to develop this project by using react.

2.6 Economic Feasibility

In Economic Feasibility study cost and benefit of the project is analyzed. Means under this feasibility study a detail analysis is carried out about what will be cost of the project for development which includes all required cost for final developments like hardware and software resource required, design and development cost and operational cost and so on.

After that it is analyzed whether project will be beneficial in terms of finance for organization or not.

In our project we are using minimum resources and open languages for which we don't have to invest much. Our main hardware needed for the development of this project is basic, so we can easily afford the development of this project. We have used visual studio code and react-native framework which are open source

2.7Operational Feasibility:

In Operational Feasibility degree of providing service to requirements is analyzed along with how much easy product will be to operate and maintenance after deployment. Operational feasibility also checks, whether the end user will be able to work with this new system or not. If user doesnot understandor isnotableto workwiththisappthendevelopment ofthissystem iswasteoftimeand money.

We are developing this website in a such way that all the blogs are showcase in a particular way so that user can see in a categorized way.

2.8Feature of New System.

- 1.All blogs are in a category.
- 2.User can report the blog.
- 3.User can comment the blog which user like it or not

2.9Literature Survey

KUBEWORLD is the site for DevOps community. It posts the article about the Linux, AWS , Cloud,GCP,CI/CD,variousDevOpstools.It is more focused on DevOps part rather than othersIt is run by some community members and they upload information about the new stuff in DevOps .

2.10 Hardware and Software Requirement

Hardware(User side):

Minimum	Recommended
RAM: 2 GB	4 GB or more
Internal Storage: 16 GB	32 GB or More

Figure 1.user hardware

Hardware(Development Side):

Minimum	Recommended
RAM: 2 GB	4 GB or more
Hard Disk: 256 GB	512 GB or more

Figure 2 hardware side of development

Software(User Side):

Minimum	Recommended
OS: Any OS	OS: Windows 10 or more
Web Browser	Chrome or Firefox latest version

Figure 3 software side of user

2.11 Project Planning

Sr. No.	Task to Complete	Estimated time
1.	Project Initialization	4 th Aug-18 th Aug
2.	Documentation	18 th Aug -9 th Sept
3.	Requirement Gathering	10 th Sept -20 th Sep
4.	Estimation and Scheduling	3 rd Oct -21 st Oct
5.	Design Analysis	22 nd Oct-27 th Oct
6.	Validate and update	27 th Oct -17 th Nov
7.	Development	4 th Nov -25 th Nov
8.	Testing and Validation	1 th Dec-12 th Dec

Table 1 project planning table

3.SYSTEM REQUIREMENTS STUDY

3.1Functional Requirements

Admin:-

1. View Blog:-

Input: -Details of Blog .

Process: - Manage information about blog.

Output: - Data will update.

2. Delete User:-

Input:-Delete user from application.

Process:-Process data into the database.

Output:-Data will update.

3. Delete Blog:-

Input: -Delete the blog .

Process: -remove blog from database .

Output: - Data will update.

4. View Reports:-

Input: - See reports given by user .

Process: - Select reports from database.

Output: -reports will display.

User:-

1. Signup:-

Input: - Name,Password, etc.

Process: - Store data of user into the database.

Output: - User can be the part of the system.

2. Signin:-

Input: - username and password.

Process: - Verify data of user into the database.

Output: - User can be able to use the functions of system.

3. Post Blog:-

Input: - Post title ,description, photos .

Process: - Store post into the database.

Output: - see the blog on page.

4. Give Comments:-

Input: - Give review.

Process: - Insert feedbacks on database.

Output: - Blog gets feedback.

3.2Non-Functional Requirements

- 1. Availability:** - When user clicked on any function then it is available.
- 2. Performance:** - Information should be update on that time when user enters the entries.
- 3. Reliability:** - Data transfer from trustable way / secure way and use trustable protocol.
- 4. Scalability:** -More Number of Users will be able to use system simultaneously.

4. SYSTEM DESIGN

4.1 Use case Diagram

A use case diagram is used to represent the dynamic behavior of a system. It encapsulates the system's functionality by incorporating use cases, actors, and their relationships. It models the tasks, services, and functions required by a system/subsystem of an application. It depicts the high-level functionality of a system and also tells how the user handles a system.

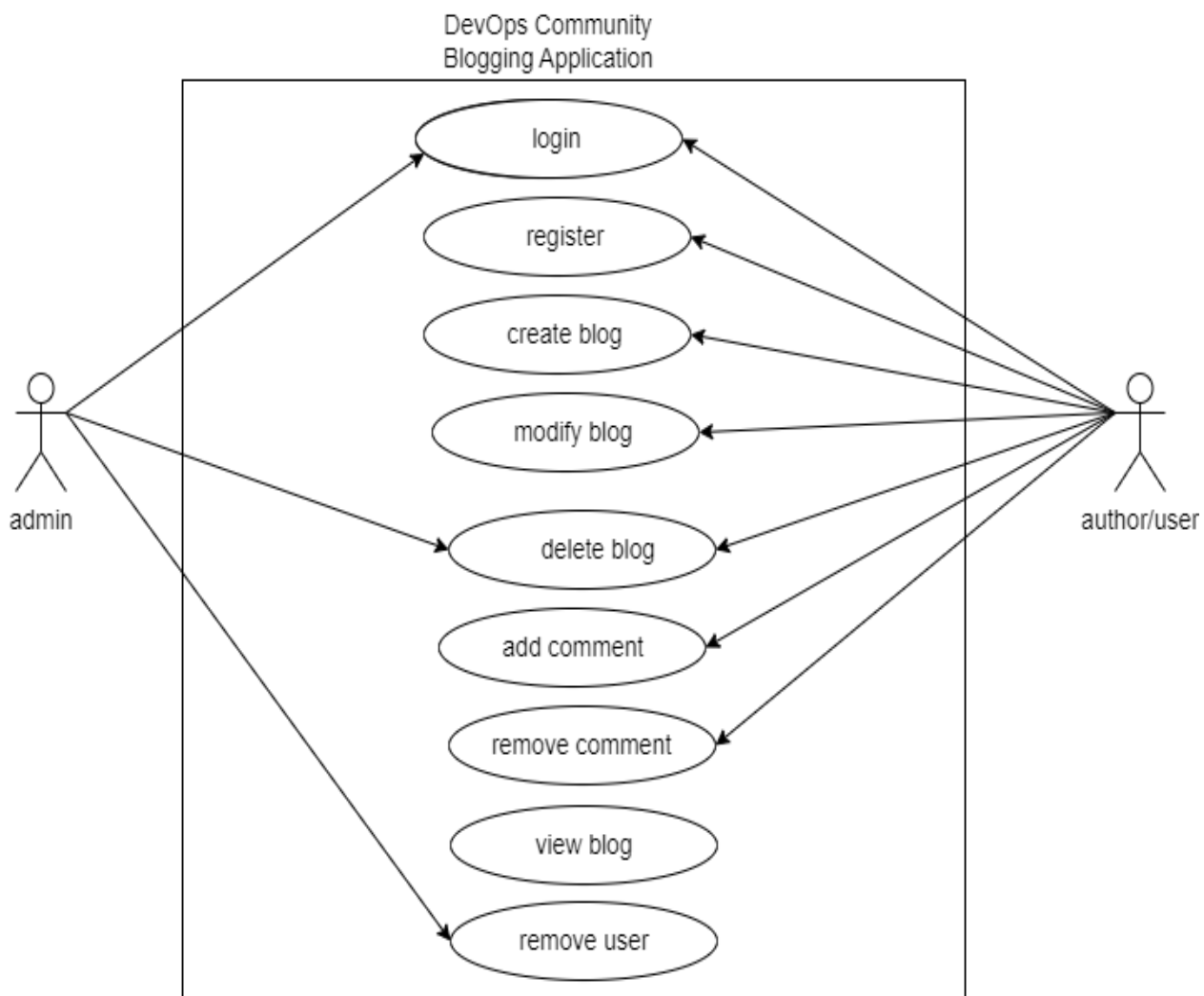


Figure 4 user case diagram

4.2 CLASS DIAGRAM

The main purpose of class diagrams is to build a static view of an application. It is the only diagram that is widely used for construction, and it can be mapped with object-oriented languages.

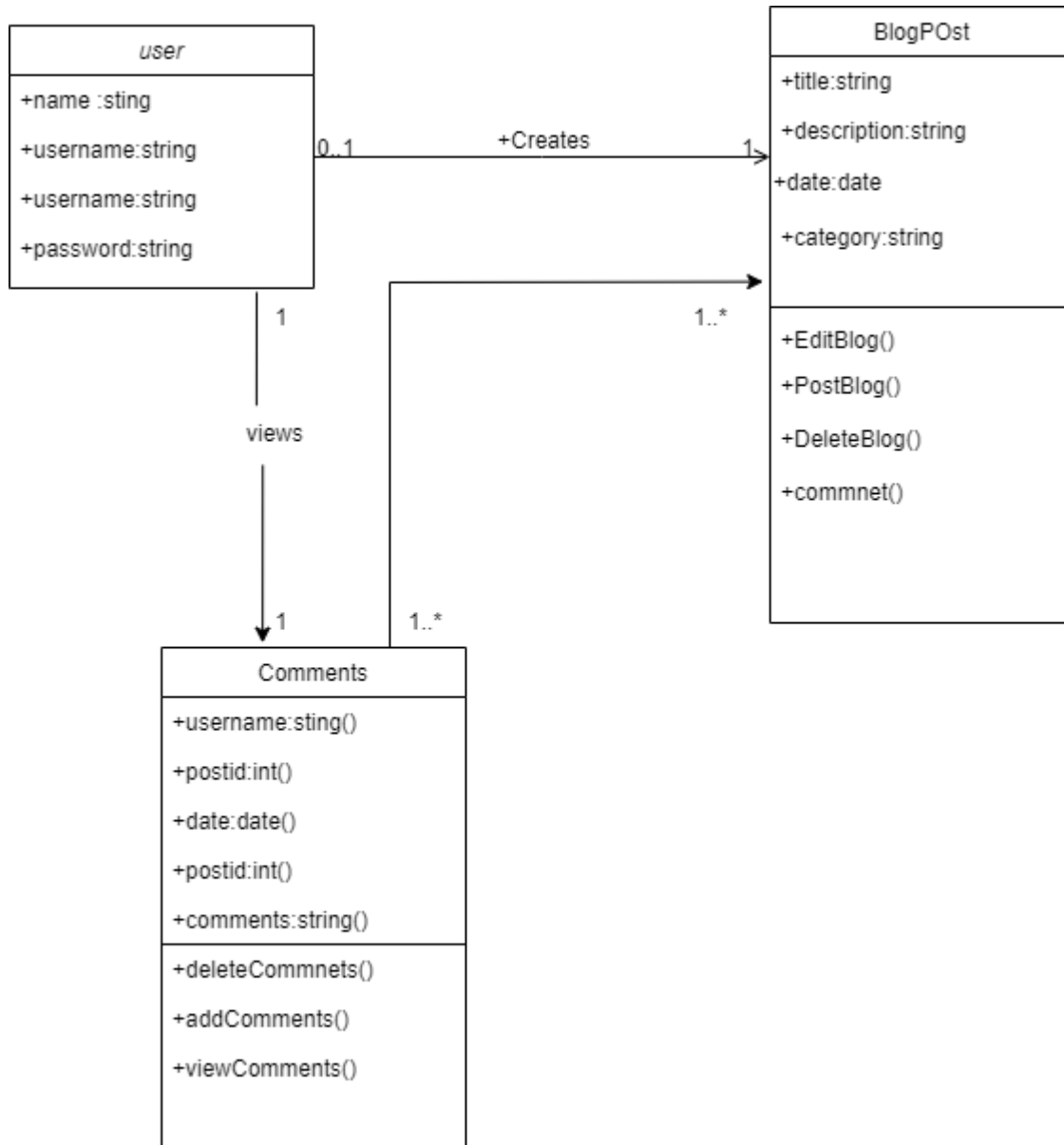


Figure 5 class diagram

4.3 ACTIVITY DIAGRAM

Activity diagram is another important behavioral diagram in UML diagram to describe dynamic aspects of the system. Activity diagram is essentially an advanced version of flow chart that modeling the flow from one activity to another activity.

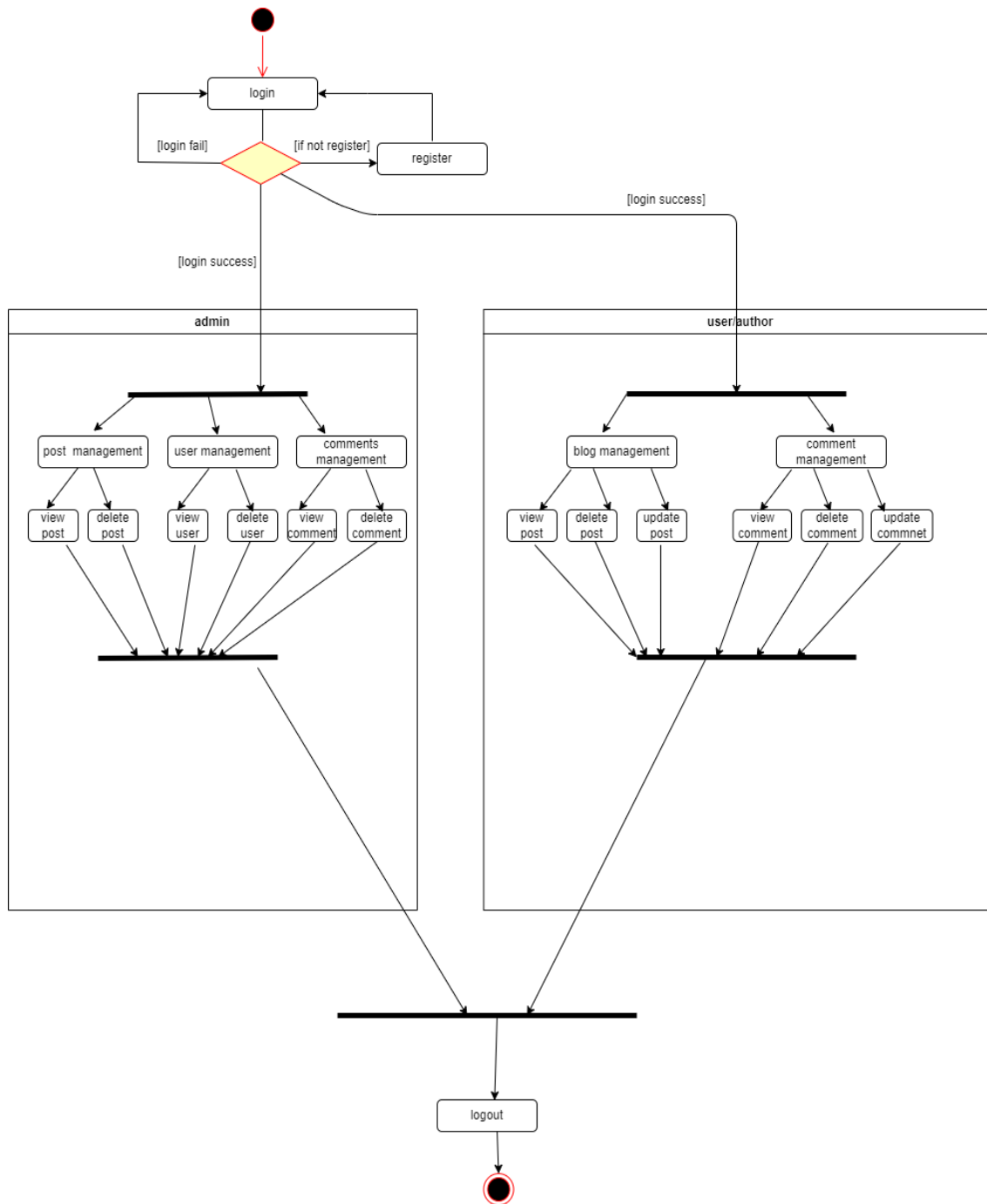


Figure 6 activity diagram

4.3 SEQUENCE DIAGRAM

A sequence diagram is a Unified Modeling Language (UML) diagram that illustrates the sequence of messages between objects in an interaction.

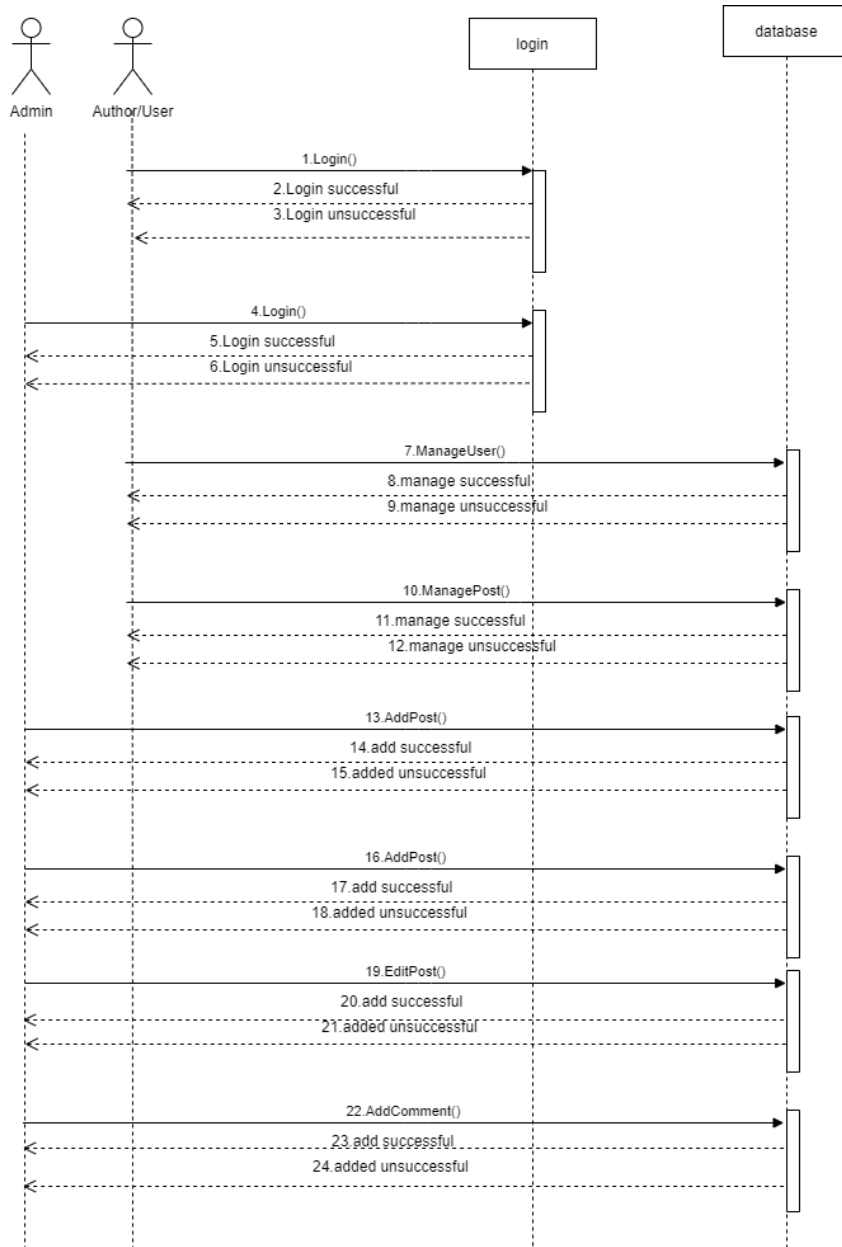


Figure 7 sequence diagram

4.4 State Diagram

A state diagram is a type of used in computer science and related fields to describe the behavior of systems. State diagrams require that the system described is composed of a finite number of states; sometimes, this is indeed the case, while at other times this is a reasonable abstraction.

Admin State Diagram

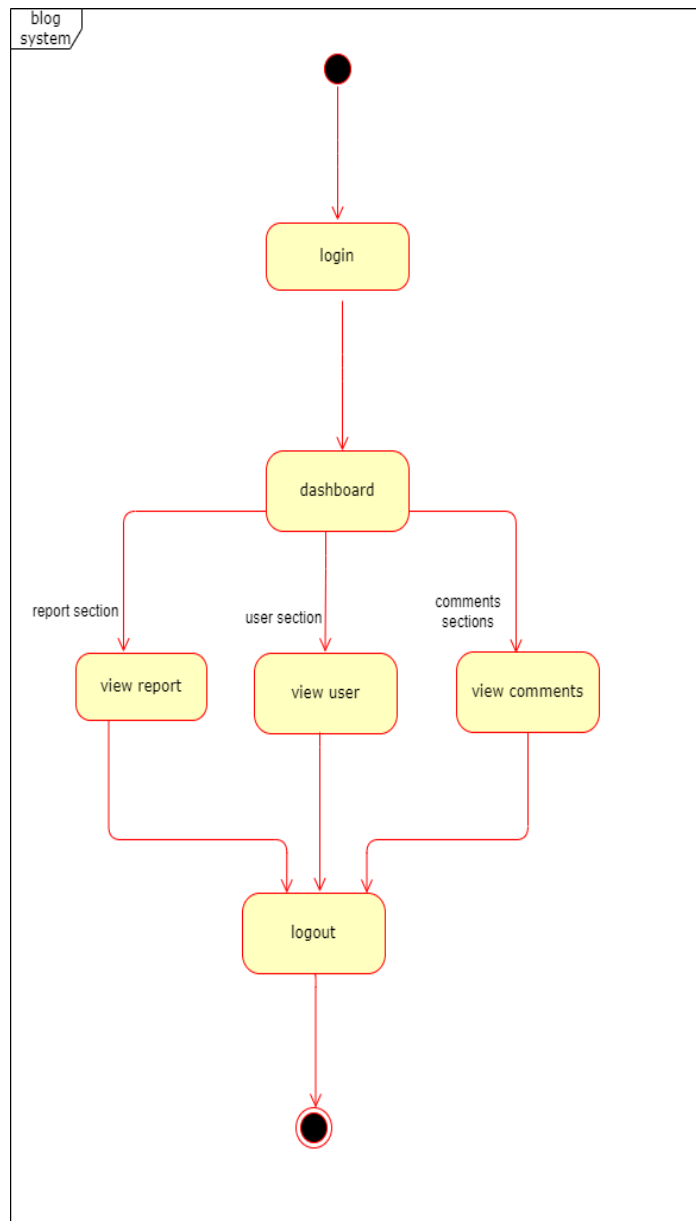


Figure 8 admin state diagram

User State Diagram

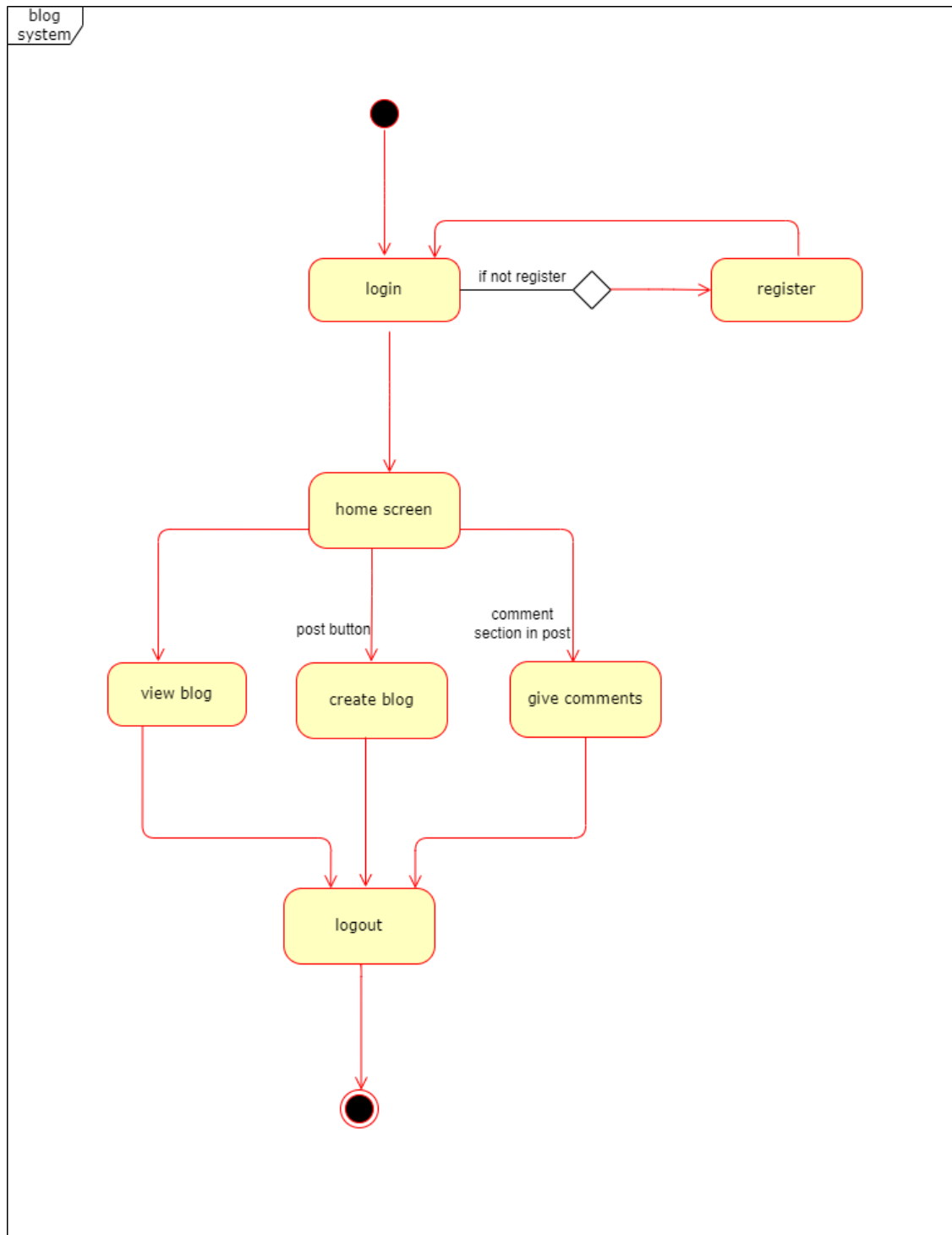


Figure 9 user state diagram

4.5 DFD Diagram

A data flow diagram (DFD) is a graphical or visual representation using a standardized set of symbols and notations to describe a business's operations through data movement.

level 0 Diagram



Figure 10 level 0 diagram

level 1 Diagram

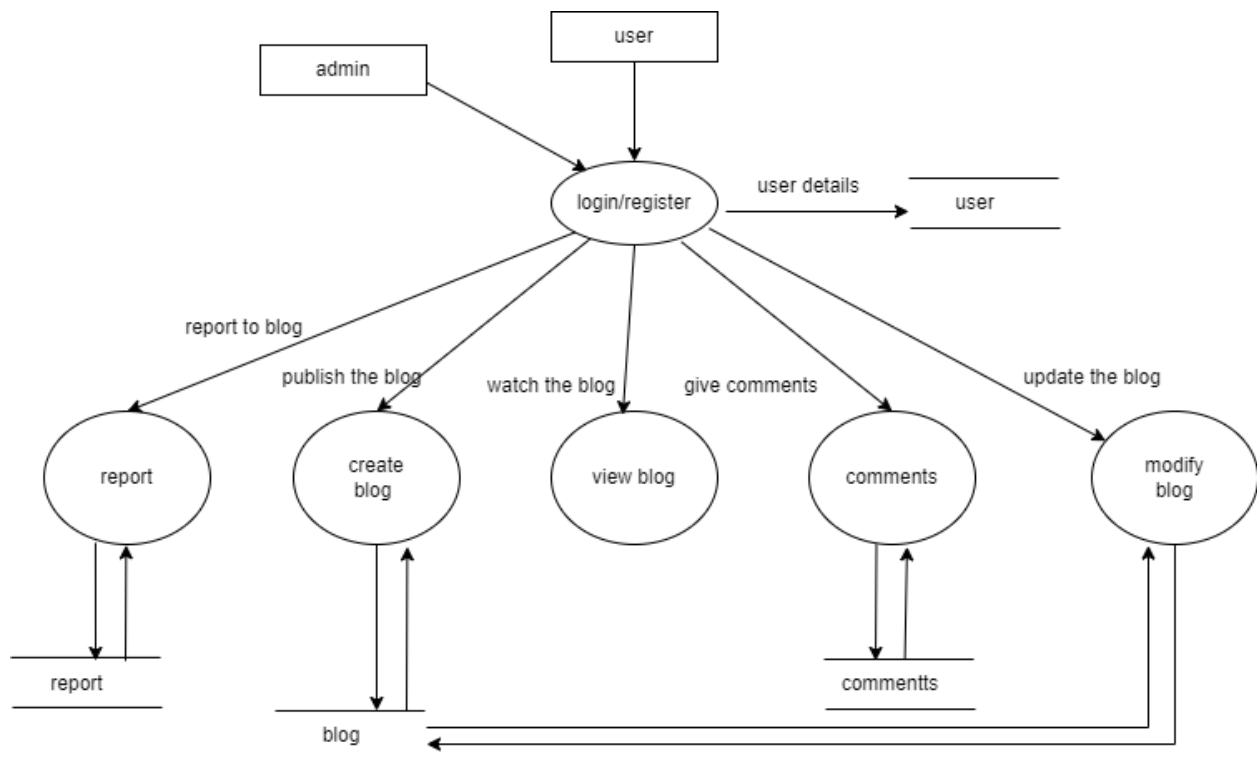


Figure 11 level 1 diagram

4.5 ER Diagram

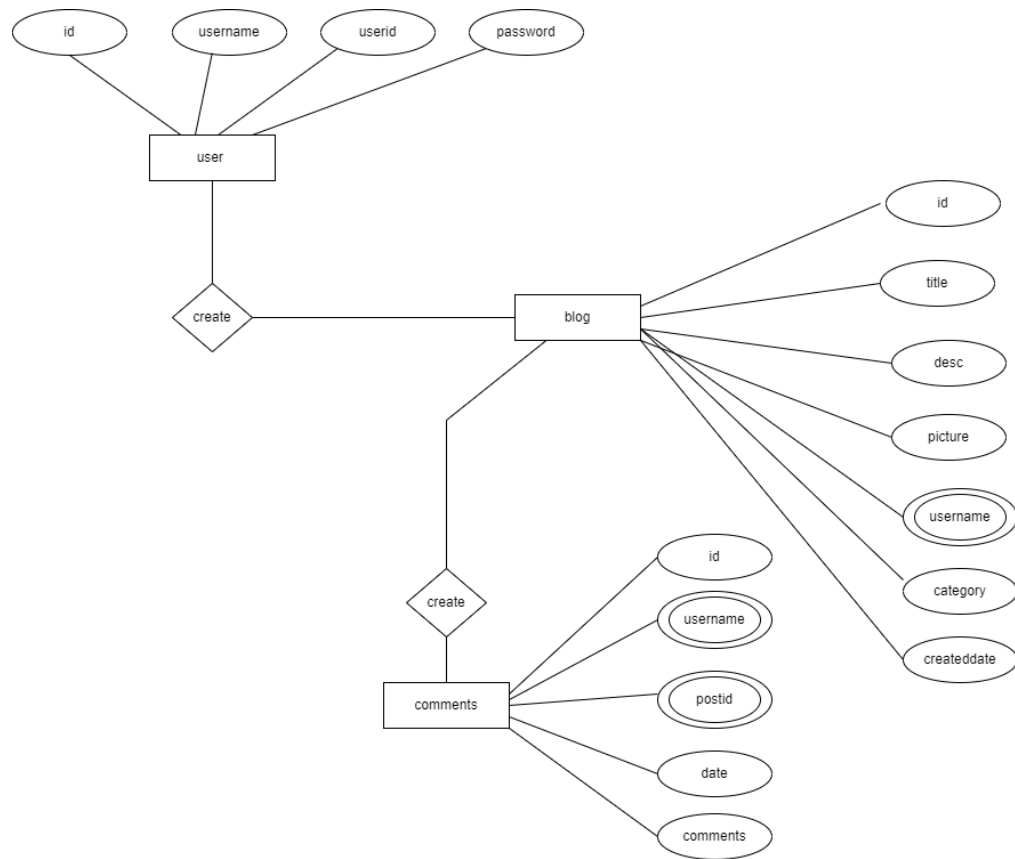


Figure 12 ER diagram

5.DATA DICTIONARY

Sr.No	Field Name	Data Type	Desctiption
1	id	ObjectId	unique id number generated by database
2	name	string	defines name of user
3	postId	string	unique id number for post
4	date	date	defines date ofcomment
5	comments	string	defines comments which is given by user

Table 2 Data Dictionary of Comments

Sr.No	Field Name	Data Type	Desctiption
1	id	ObjectId	unique id number generated by database
2	title	string	defines title of blog
3	username	string	defines username
4	date	date	defines date of post
5	description	string	defines description which is given by user
6	categories	string	defines category of blog

Table 3 Data Dictionary of post

Sr.No	Field Name	Data Type	Desctiption
1	id	ObjectId	unique id number generated by database
2	user	ObjectId	id number of username opted by user collection
3	post	ObjectId	id number of postId opted by post collection
4	cretedAt	date	defines date of post
5	updatedAt	date	defines description which is given by user

Table 4 Data Dictionary of report

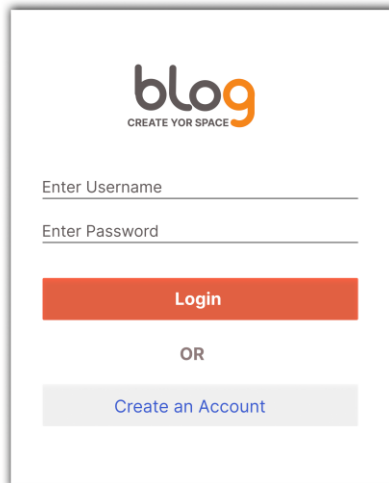
Sr.No	Field Name	Data Type	Desctiption
1	id	ObjectId	unique id number generated by database
2	name	string	defines name of user
3	username	string	defines name of username
4	password	date	defines passowd of user
5	Role	string	defines roel of the user

Data Dictionary of user

6. PROTOTYPE

Login :-

This screen is the login screen of the system after login you can perform various functionality.

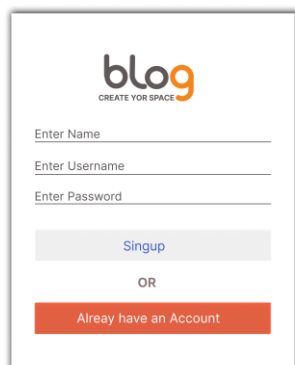


The login page features the 'blog' logo at the top with the tagline 'CREATE YOR SPACE'. Below the logo are two input fields: 'Enter Username' and 'Enter Password'. A red 'Login' button is positioned below the password field. Underneath the button is the text 'OR', followed by a light blue button labeled 'Create an Account'.

Figure 13 user login page

SignUp:-

This Screen defines sign up /registration.user fill the details and sign up.



The sign up page features the 'blog' logo at the top with the tagline 'CREATE YOR SPACE'. Below the logo are three input fields: 'Enter Name', 'Enter Username', and 'Enter Password'. A light blue 'Singup' button is positioned below the password field. Underneath the button is the text 'OR', followed by a red button labeled 'Alreay have an Account'.

Figure 14 user sign up page

Home Page:-

This page defines home screen of the site. This is the first page appear after login.

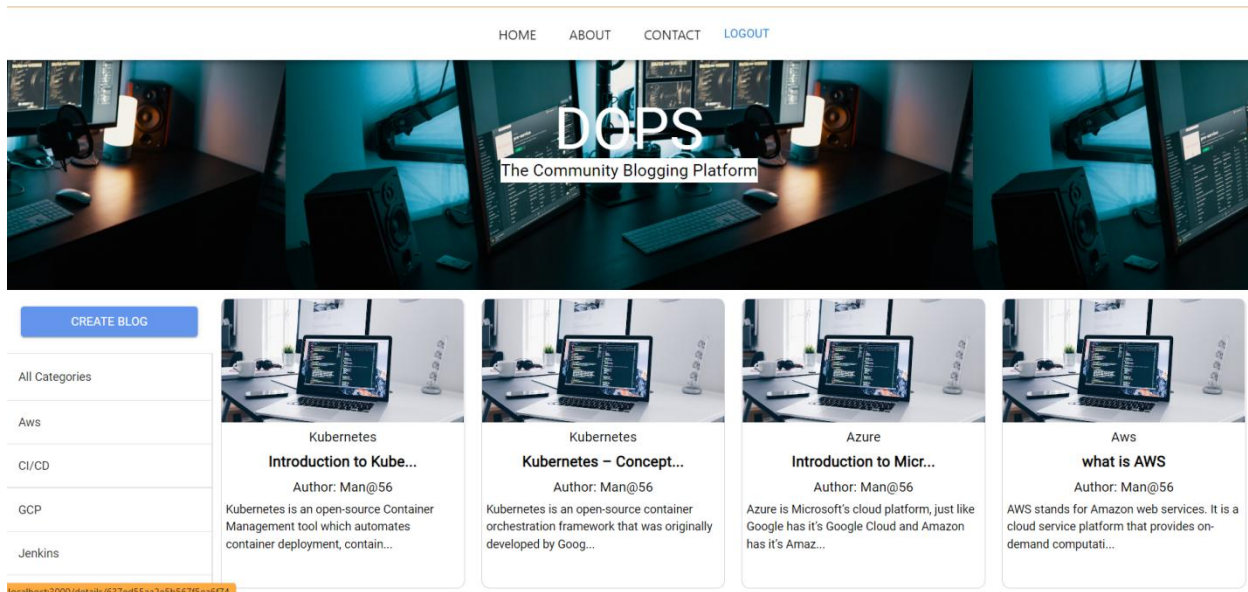


Figure 15 home of website page

Create Post:-

This screen shows the create post of the website.

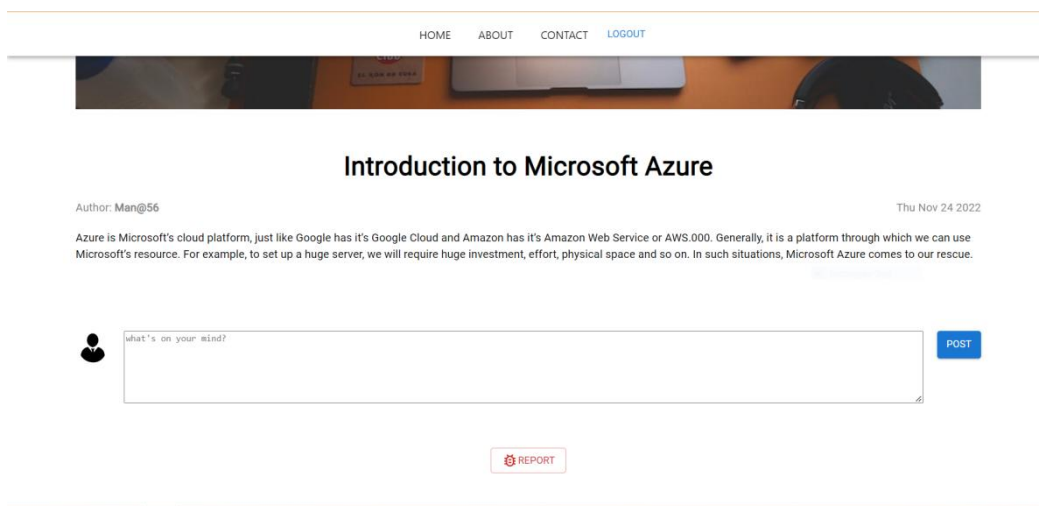


Figure 16 create post page of website page

About us:-

This screen shows the about us of the website. This defines brief introduction about organization.

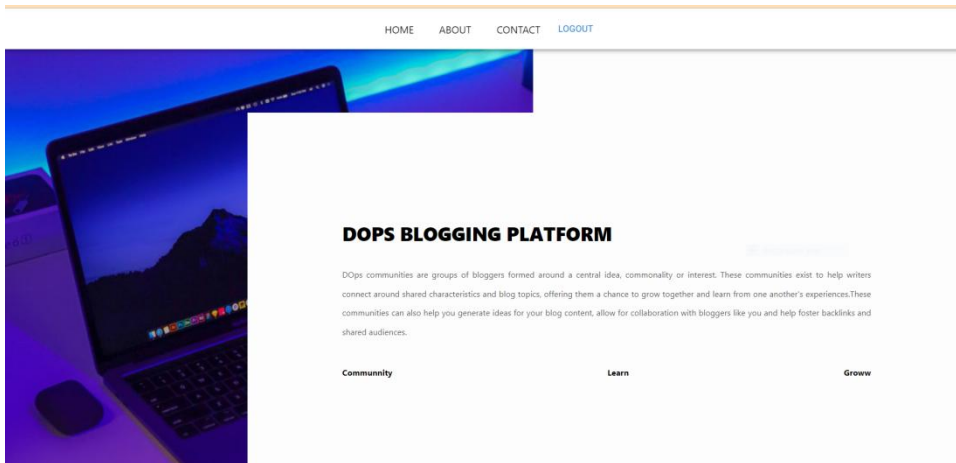


Figure 17 about us page of website page

Contact us:-

This screen shows Contact us of the website. If user have some issue that it can contact to the admin of the organization.

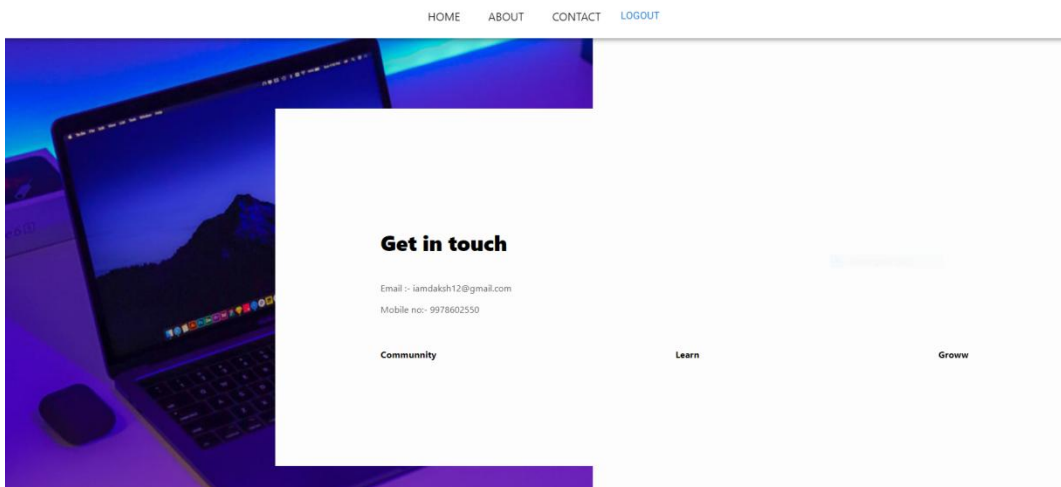


Figure 18 contact us page of website page

Admin Home Page:-

This screen is the Home Screen of the admin panel. After Login admin redirect to this screen

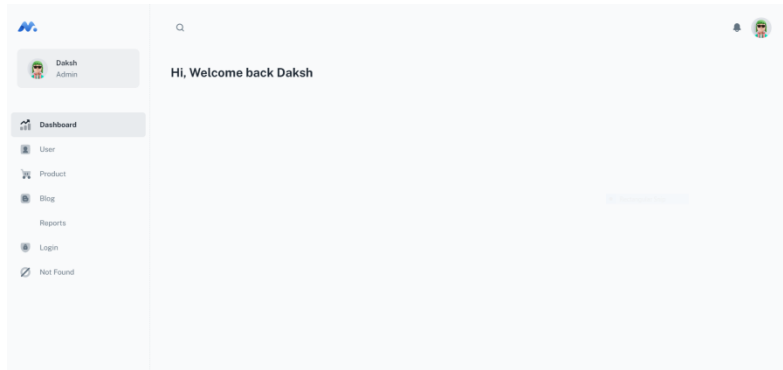


Figure 19 admin panel home page

Admin panel user page:-

This screen shows total user of the platform

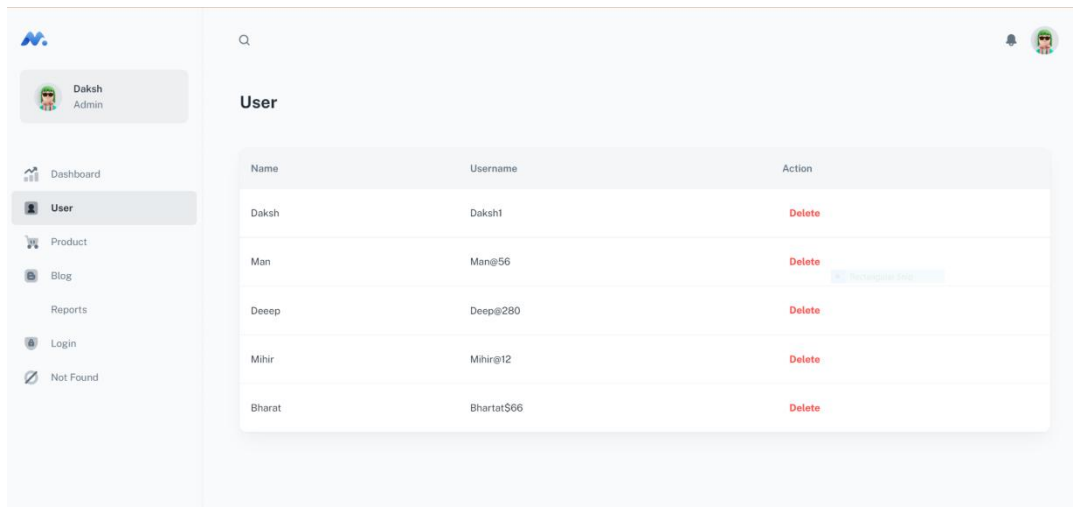


Figure 20 admin panel user page

Admin panel report:-

This Screen shows the report of the blog.

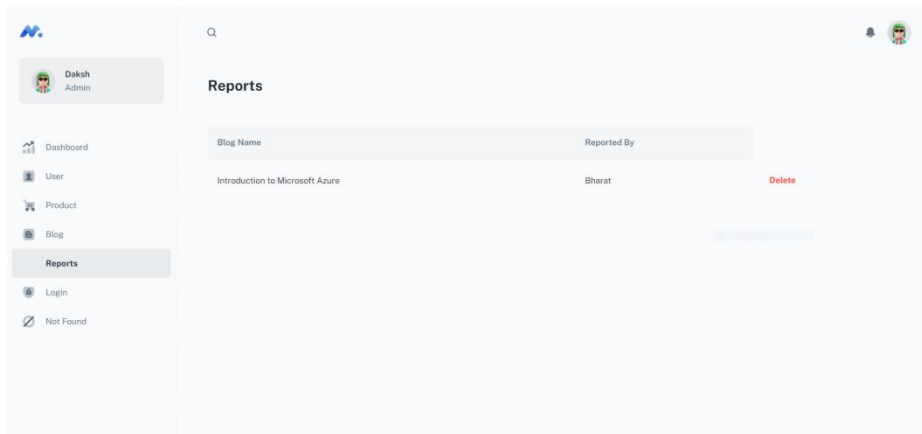


Figure 21 admin panel report page

Admin panel blog page:-

This screen defines the total blog of the platform.

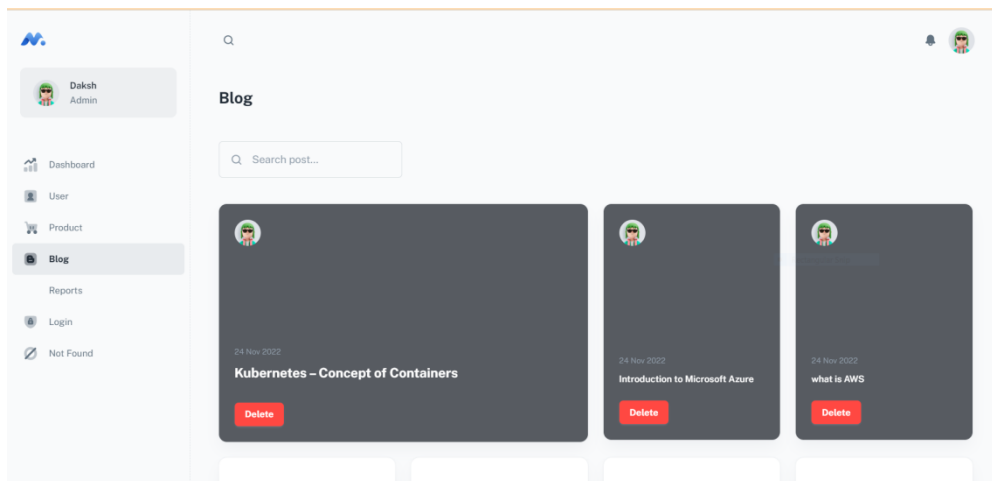


Figure 22 admin panel blog page

Admin panel login:-

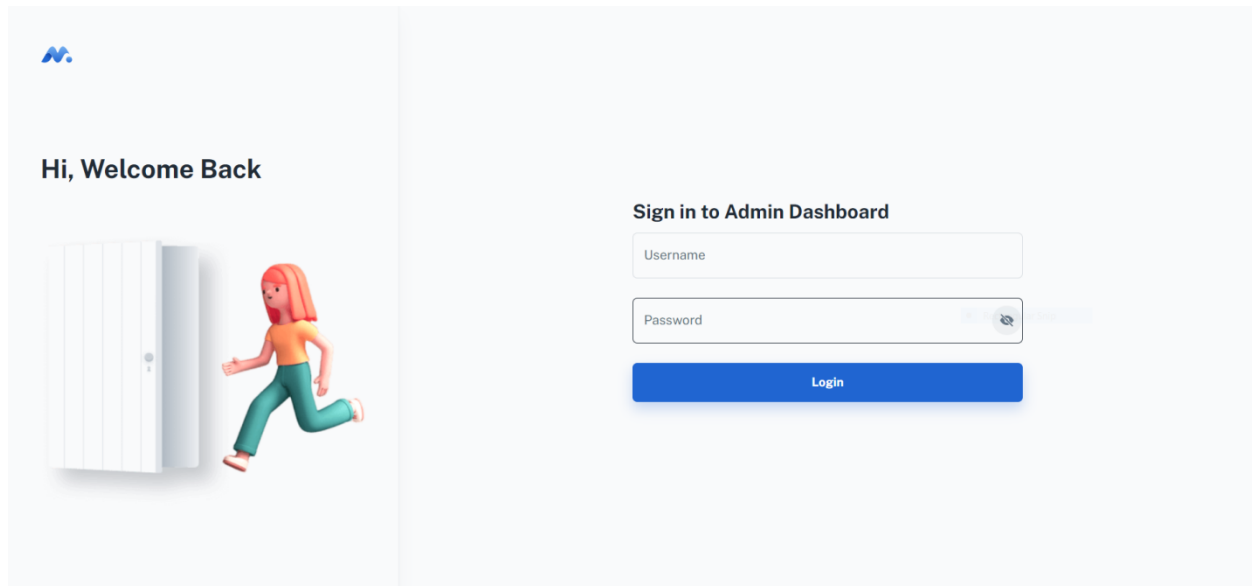


Figure 23 admin login screen.

7.CONCLUSION

This DVOPS community system is specially designed for DevOsp Community. This platform provides an environment for posting or sharing knowledge throughout the organization. Whatever they want to share then they can easily write on their blog and it can be viewed by the member in the organization. The purpose meets the goal of sharing the information in formal.

8.REFERENCES

List of few references for writing an SRS

1. Rajib Mall, “Fundamentals of Software Engineering”, 2014, Asoke K. Ghosh / PHI Learning Private Limited
2. IEEE Std 610.12-1990-IEEE Standard Glossary of software engineering

List of few references of Documentation

1. Mozilla Documentation:-<https://developer.mozilla.org/en-US/docs/Web/JavaScript>
2. Mern Stack :<https://courses.learncodeonline.in/learn/Full-Stack-MERN-Bootcamp>
3. React.JS Documentation:- <https://reactjs.org/docs/getting-started.html>
4. Mongoose Documentation:-<https://mongoosejs.com/docs/guide.html>
5. Express.JS Documentation:-<https://expressjs.com/en/5x/api.html>
6. MongoDB Documentation:-<https://university.mongodb.com/courses/M001/about>

9.ABOUT COLLEGE

Ganpat University-U. V. Patel College of Engineering (GUNI-UVPCE) is situated in GanpatVidyanagar campus. It was established in September 1997 with the aim of providing educational opportunities to students. It is one of the constituent colleges of Ganpat University various strata of society. It was armed with the vision of educating and training young talented students of Gujarat in the field of Engineering and Technology so that they could meet the demands of Industries in Gujarat and across the globe.

The College is named after ShriUgarchandbhaiVaranasibhai Patel, a leading industrialist of Gujarat, for his generous support. It is a self-financed institute approved by All India Council for Technical Education (AICTE), New Delhi and the Commissionerate of Technical Education, Government of Gujarat.

The College is spread over 25 acres of land and is a part of GanpatVidyanagar Campus. It has six ultra-modern buildings of architectural splendour, class rooms, tutorial rooms, seminar halls, offices, drawing hall, workshop, library, well equipped departmental laboratories and several computer laboratories with internet connectivity through 1 Gbps Fibre link, satellite link education centre with two-way audio and one-way video link. The superior infrastructure of the Institute is conducive for learning, research, and training.

The Institute offers various undergraduate programs, postgraduate programs, and Ph.D. programs