



Dharmsinh Desai University, Nadiad
Faculty of Technology, Department of Computer Engineering

B.Tech. CE Semester - VI
Subject : Object Oriented Software Engineering

Project Title:
Online Blogging System

Submitted By :
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Dharmsinh Desai University, Nadiad
Faculty of Technology, Department of Computer Engineering

CERTIFICATE

This is to certify that Object Oriented Software Engineering
The project entitled “Online Blogging System” is the bonafide report of work
carried out by

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Of the Department of Computer Engineering, Semester VI, academic year
2020-21, under our supervision and guidance.

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1. Abstract

An Online Blogging System is a website dedicated to blogging, where users can share good ideas with the world. One such good example is <https://medium.com/>

2. Introduction

An Online Blogging System is basically a website which is used for chronological listing of blog posts. A blog has the most recent content shown first followed by the previously updated content.

An Online Blogging System website is a site dedicated to blogging. One such good example of this service is <https://www.blogger.com/about/>

Technology and Tools:

Technologies:

- HTML5
- CSS3
- Javascript
- JQuery
- BootStrap
- Node.js
- MongoDB
- Express
- Mongoose

Tools:

- Visual Studio Code
- MongoDB Compass
- Postman

3. Software Requirement Specifications

Description

1. Product Scope

The purpose of the online blogging system is to ease blog management and to create a convenient and easy-to-use application for bloggers.

2. Product Perspective

A blogging system database system stores the following information

- Blog description : It includes blog content, date and time for blog, author of blog etc.
- User details : It includes user name, password, email-id, blogs etc.

3. Product Functions

This product can be useful in replacing newspaper articles to save nature.

- Login module
- Registration module
- Show Blogs list
- Create / edit / update / delete blogs
- Search blogs based on title, author or dates
- Markdown syntax for blog content

4. User Classes and Characteristics

Users can access the blogs. o Users can sign up for a new account.
Users can create, delete, update posts(blogs).

5. Operating Environment

This website will work on any platform which has integrated browser and internet support. It works on major browsers like chrome, Firefox, safari, edge etc. Works with many operating systems like windows, Linux and macOS.

6. Design and Implementation Constraints

Blogging System is a Web application, so users need to use any kind of browsers and also need the internet. When users or merchants use legacy browsers then the UI of the website sometimes does not work. Software maintenance will be available from our side without any charges.

7. User Documentation

User manual and product tutorial video link is provided with SRS. Screenshot of the whole product is also available to users for future reference.

8. Assumptions and Dependencies

While developing this product we assumed the following factors.

- Users will have any kind of smart device like laptop, pc or smartphone.
 - All these devices are capable of running modern browsers.
 - Users will have an internet connection. The project could be affected if any of these assumptions are incorrect.
-

System Feature

Blogging Site provides services to add, remove and update the post with access control. The site saves the time of the author by giving the lots of features on hand.

1. Show Blogs list

input	button click
output	List of blogs with the link to respective pages.
description	To list down all the posts on the homepage of the site.

precondition	There is no need to log in to as blogs must be available to all users.
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2. Search blogs

input	search query as a string
output	Success or Failure.
description	Search blog or author
process	search based on user query and show matching blogs.
precondition	There is no need to log in to as blogs must be available to all users.

3. Login

input	Username and Password.
output	Success or Failure.
description	Users can use this page to login to the system by entering personal credentials (username and password) and will be redirected to a home page based on role to use the features of the website.
process	Check the username and matching password in the database. If found in the database then redirect the user to his/her home page.
precondition	Users must be registered on the website.
postcondition	User is logged in to the website and a new session is associated with the client connection.

4. Registration

input	User needs to fill up the registration form.
output	Success or Failure based on availability.
description	New users can use this page to register into the website.
process	If data is valid, make changes to the database otherwise handle appropriately.
postcondition	User is logged in to the website and a new session is associated with the client connection.

5. Add Blog

input	User needs to fill up the form containing info like title, description, content etc.
output	Success or Failure.
description	This feature is used to add new blogs.
process	If validation is successful, make changes to the database otherwise handle appropriately.
precondition	Users must login on the website.
postcondition	An alert is displayed based on success or failure. If successful, a blog will be added.

6. Update Blog

input	User needs to fill up the form containing info like title, description, content etc.
output	Success or Failure.
description	This feature is used to update blogs by the user.
process	If validation is successful, make changes to the database otherwise handle appropriately.

precondition	Users must login on the website.
postcondition	An alert is displayed based on success or failure. If successful, a blog will be updated.

7. Delete Blog

input	User click.
output	Success or Failure.
description	This feature is used to delete blogs created by the user.
process	If validation is successful, make changes to the database otherwise handle appropriately.
precondition	Users must login on the website.
postcondition	An alert is displayed based on success or failure. If successful, a blog will be deleted.

8. Logout

input	button click.
output	Success or Failure.
description	Logout user from website.
process	Session is destroyed and the user is redirected to the home page.
precondition	Users must login on the website.
postcondition	An alert is displayed based on success or failure. If successful, the user will be logged out.

Other Nonfunctional Requirements

1. Performance Requirements

Performance should not be an issue because all the data queries involve small pieces of data.

Changing the screen will require very little computation and thus will occur very quickly. Server updates could only take a few seconds as long as the device can maintain a steady signal. website will also up for 24x7 except the maintenance.

2. Safety Requirements

Make this application lightweight, so that it puts a low load on the device. Only the project admin will be having access to the database at the back-end. So, the admin will have rights for modifications as well as direct updates to the database.

3. Security Requirements

System should provide a secure login/registration system. And don't allow unauthorized users to access the application.

Security systems need database storage just like many other applications.

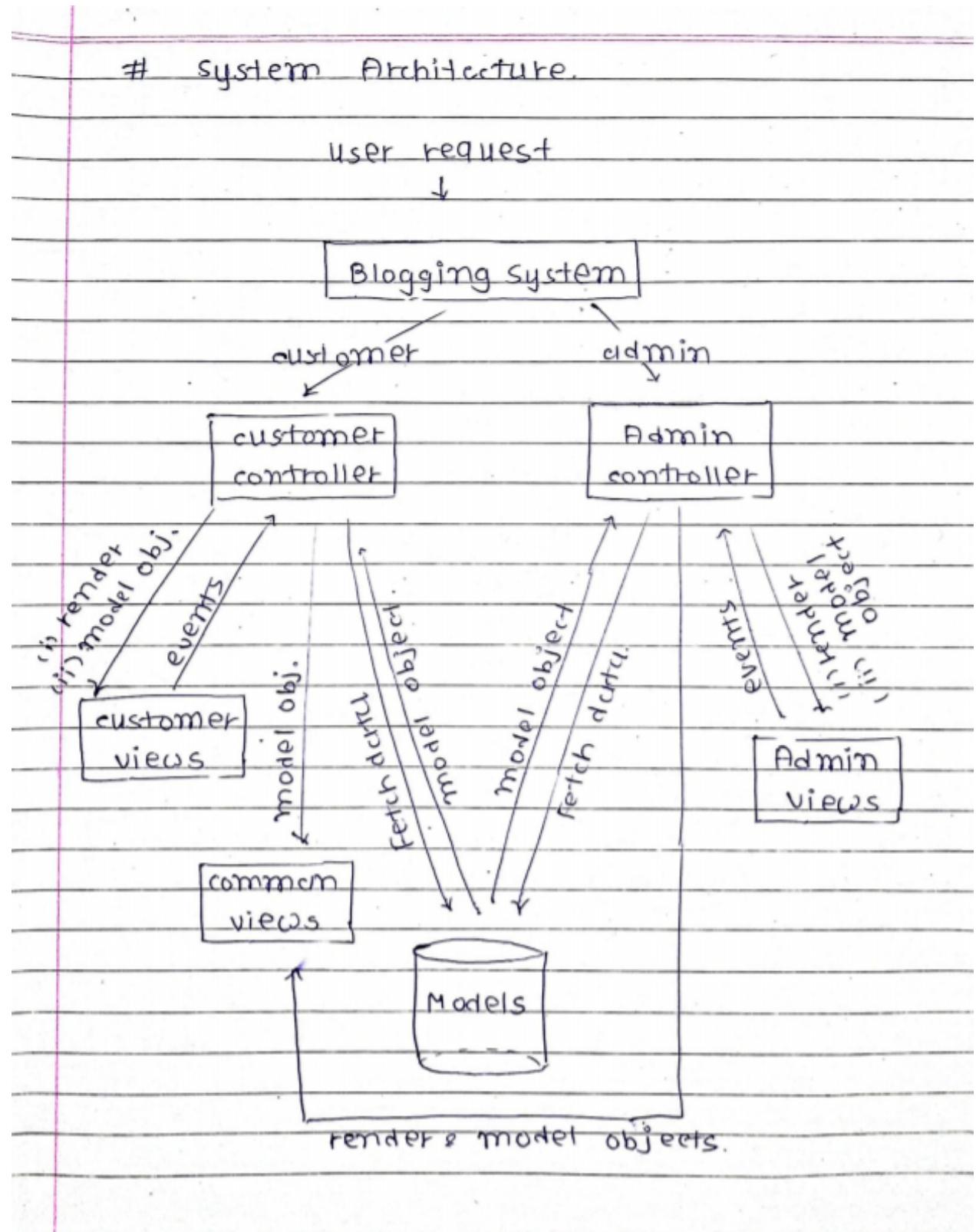
4. Software Quality Attributes

System should be

- Consistent in performance
- Safe and Secure
- Robust
- Scalable
- Flexible
- User friendly
- Efficient

4. Analysis and Design

System Architecture



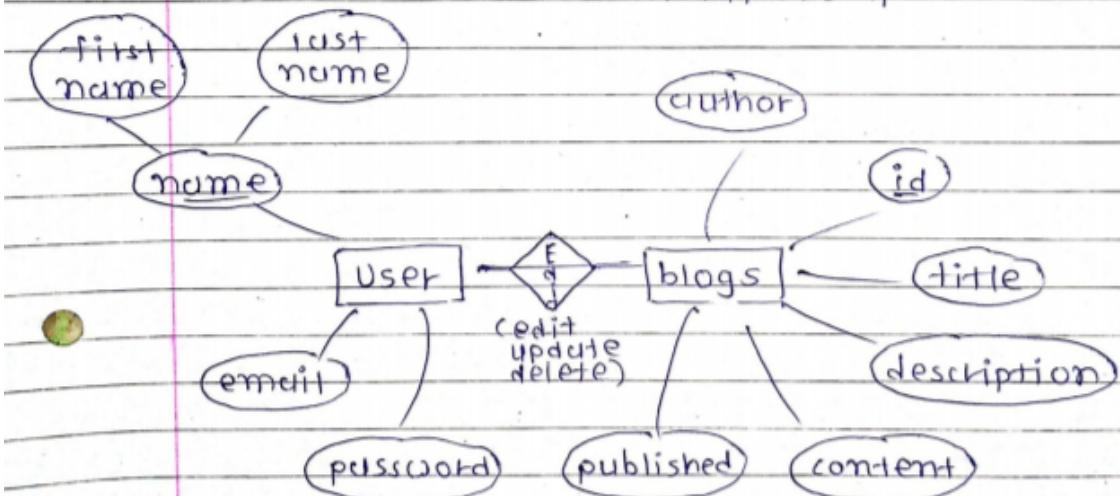
ER diagram

#1 ER diagram:

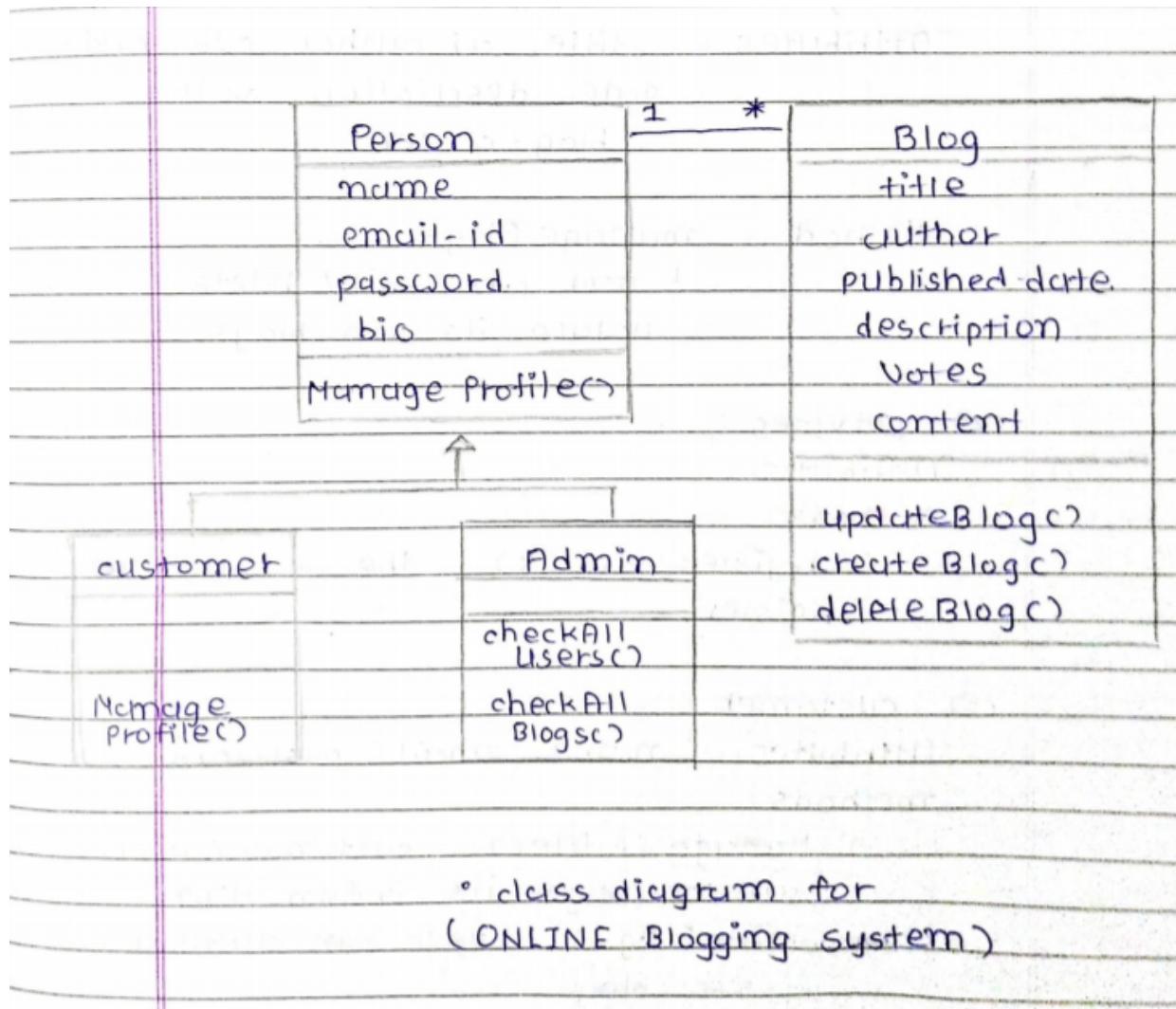
⇒ schemas.

1. User (user.name, email, password)
2. Blog (blog.id, title, author, published, description, content)

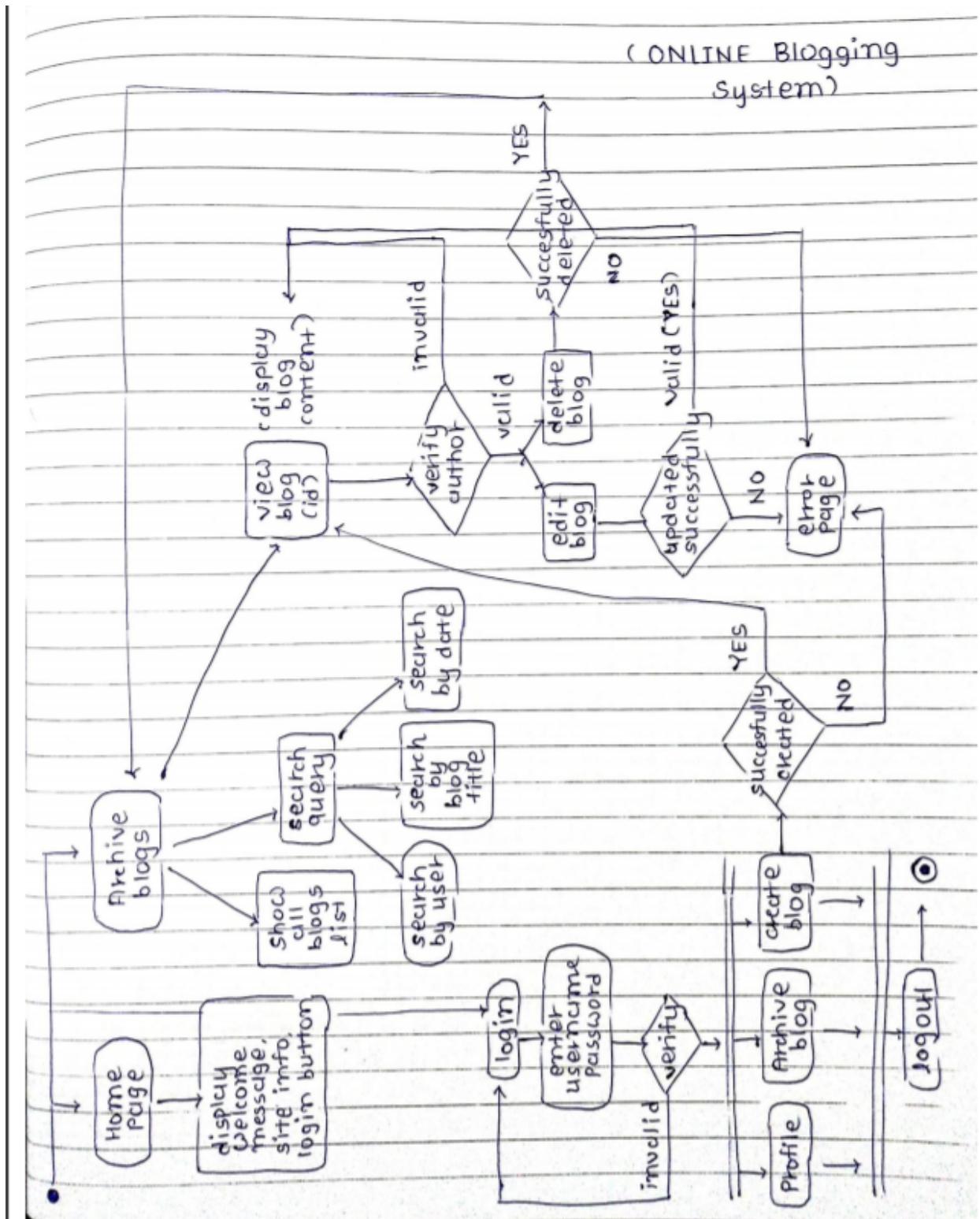
user to blog : one to many relationship



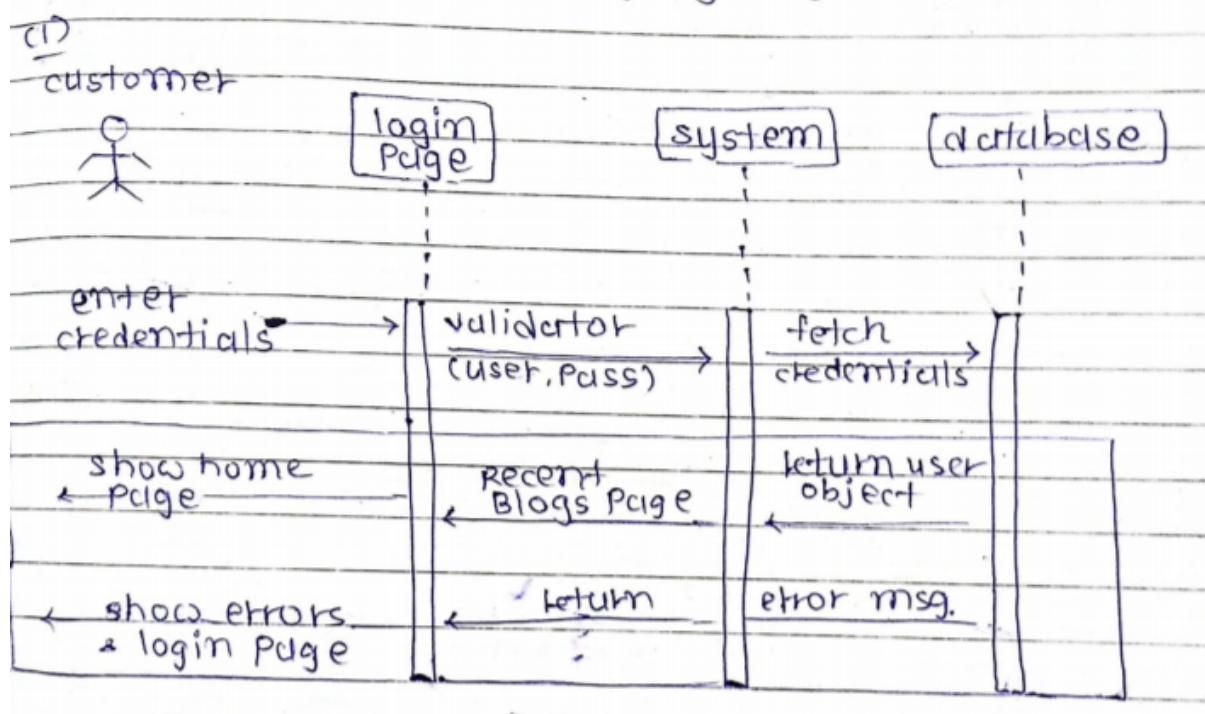
Class diagram

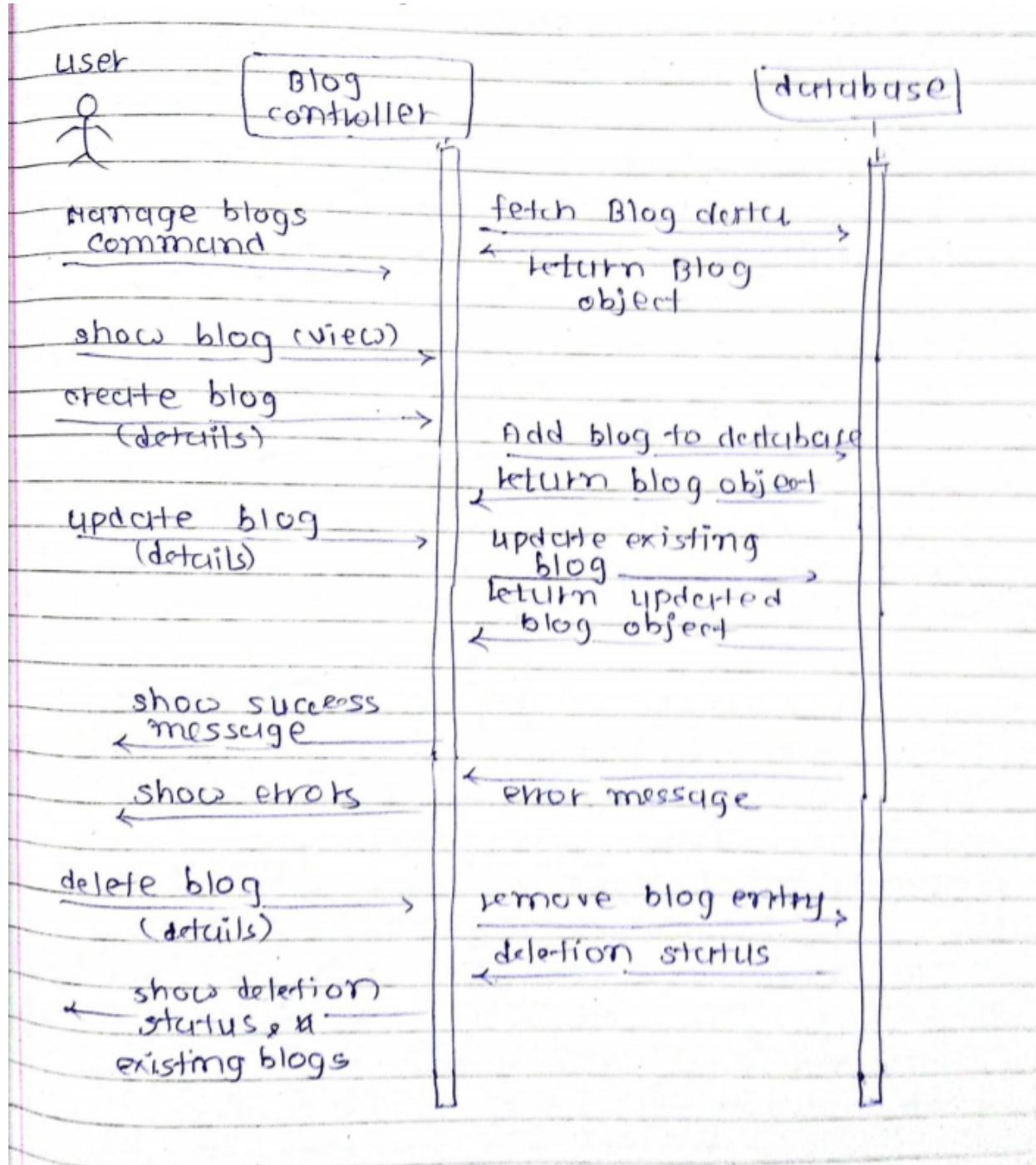


Activity diagram

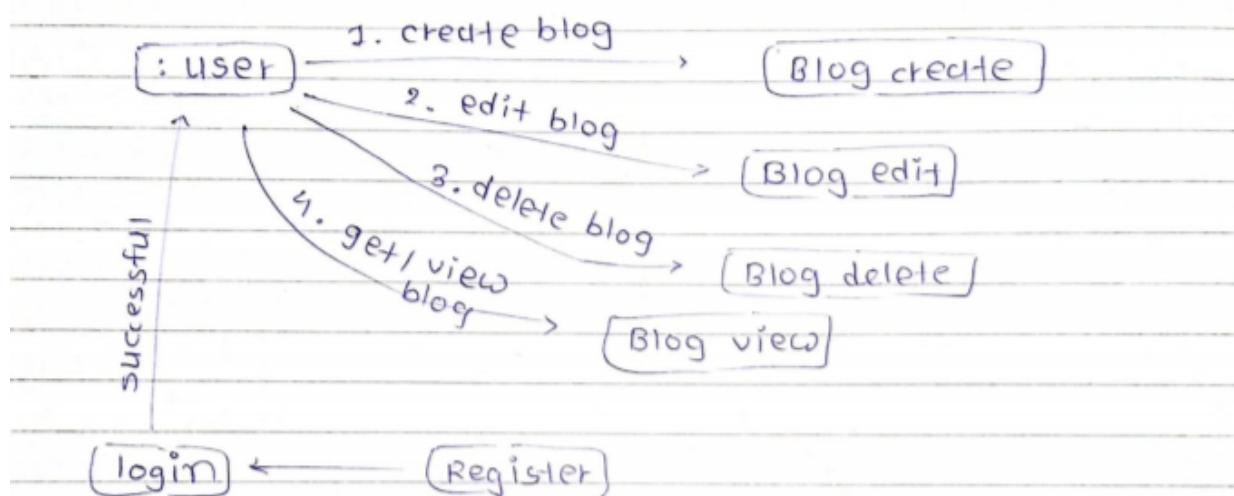


Sequence diagram





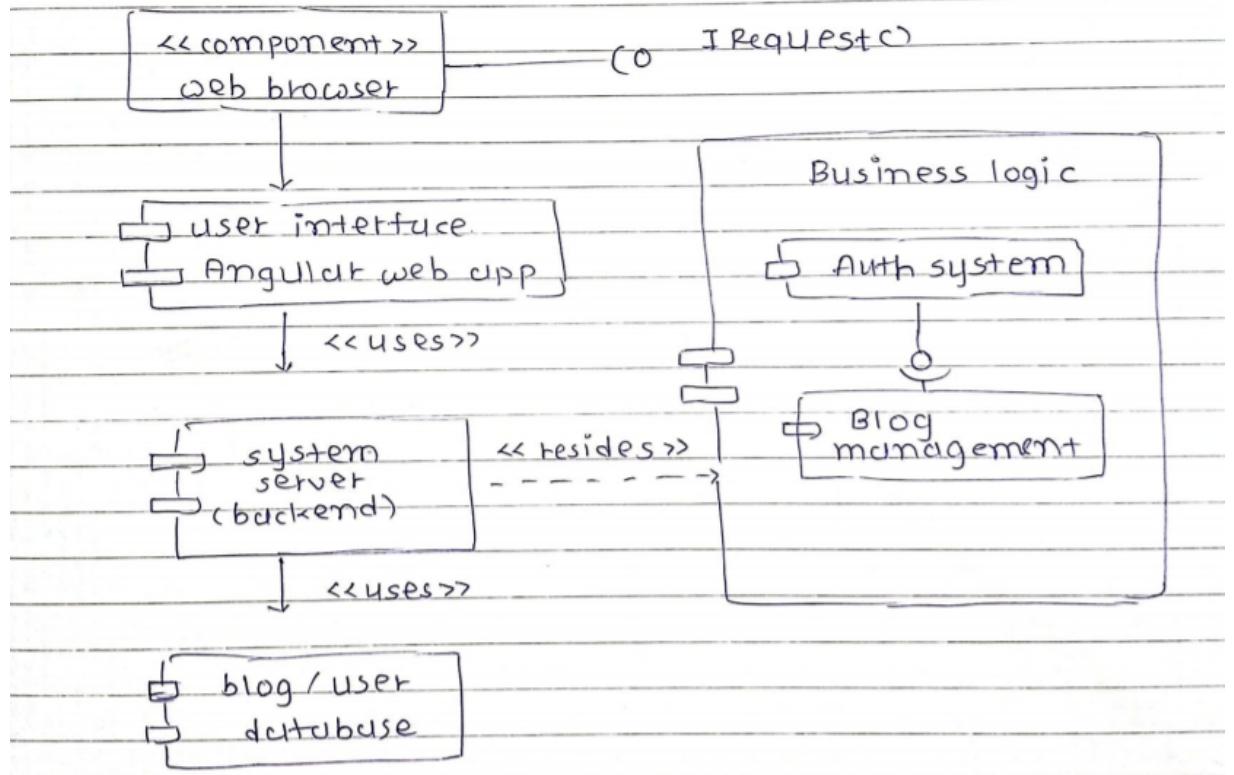
Collaboration diagram



• Online Blogging system •

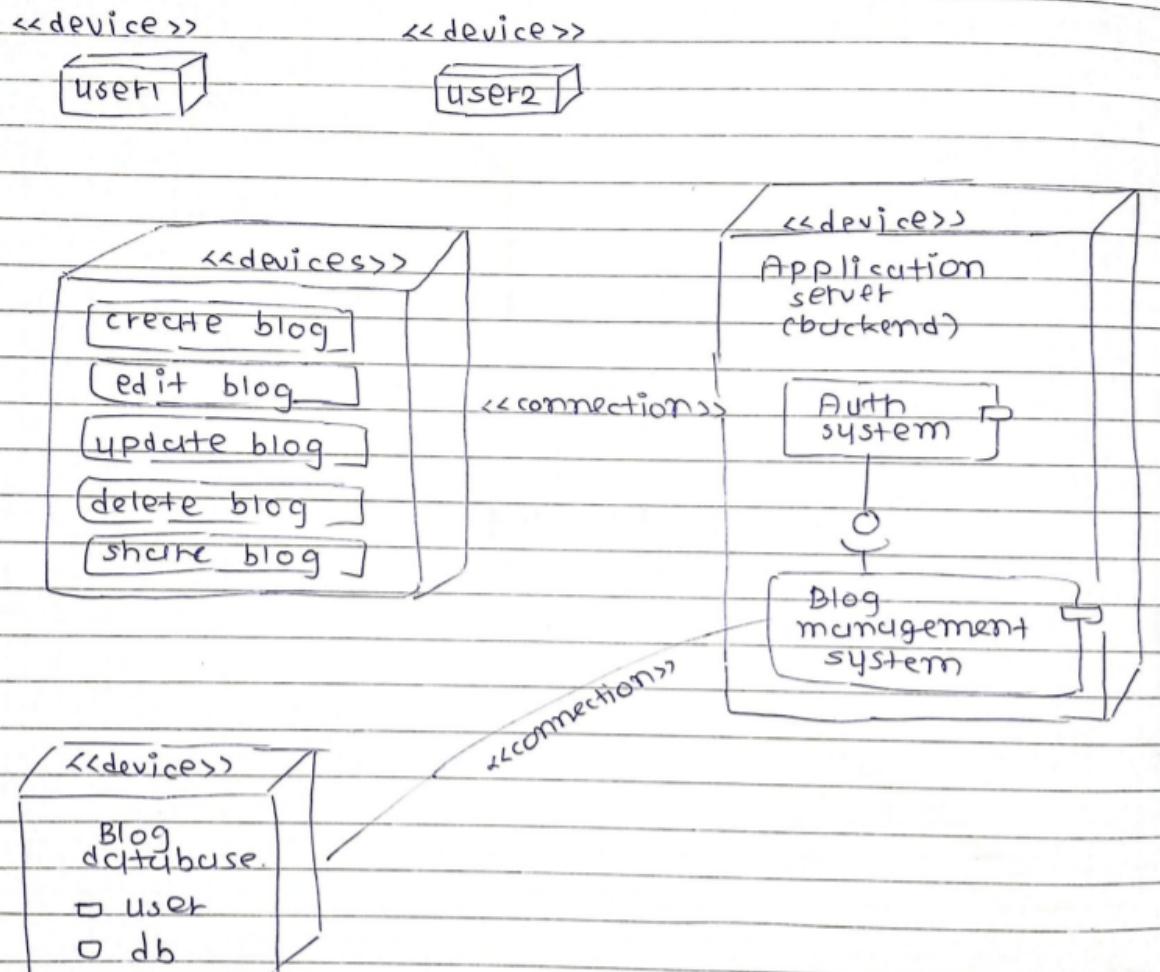
Component diagram

(1) component diagram

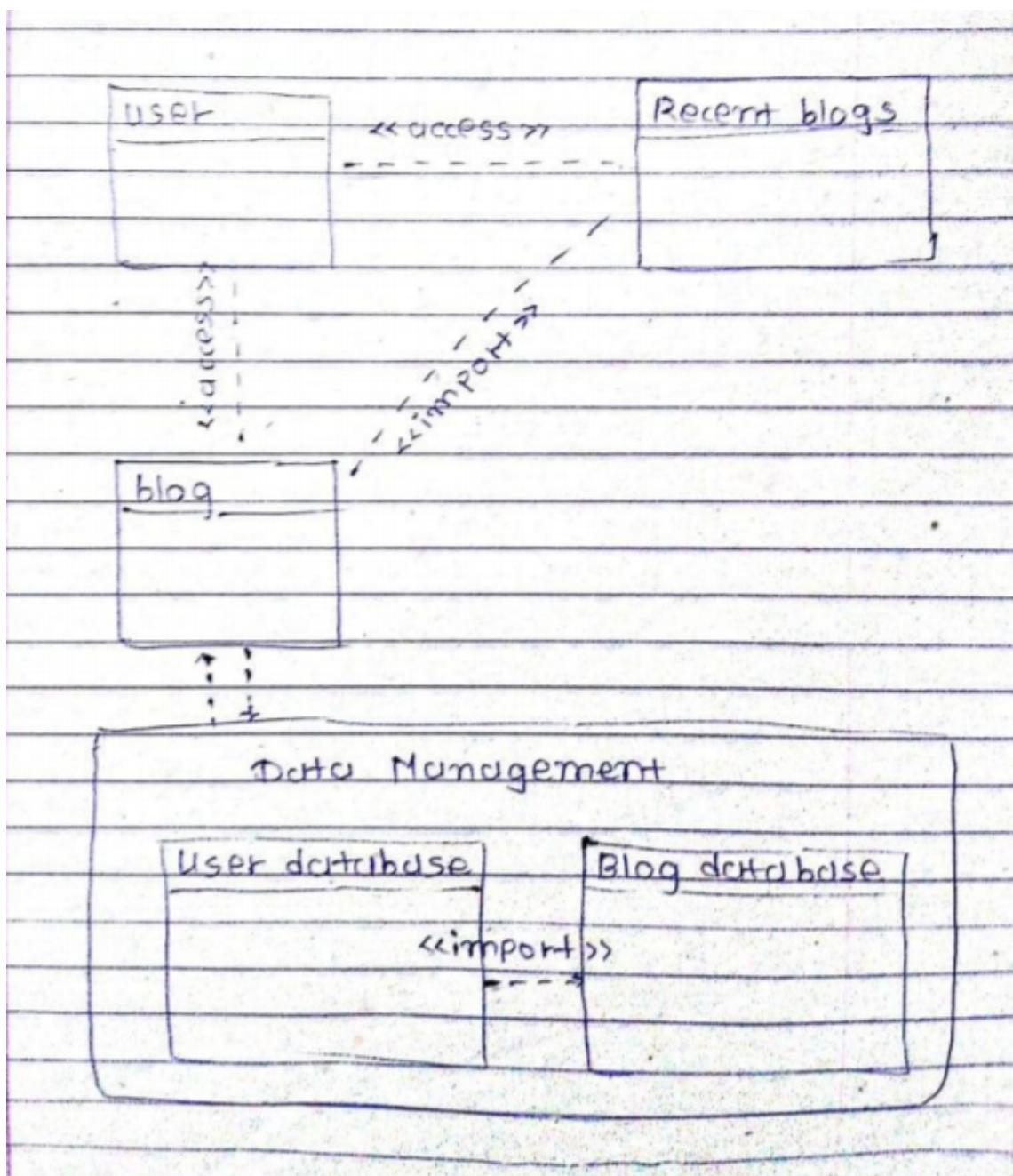


Deployment diagram

(2) deployment diagram.



package diagram



Database design

User

_id	Unique primary key
UserName	String
FirstName	String
LastName	String
Bio	String
Password	String

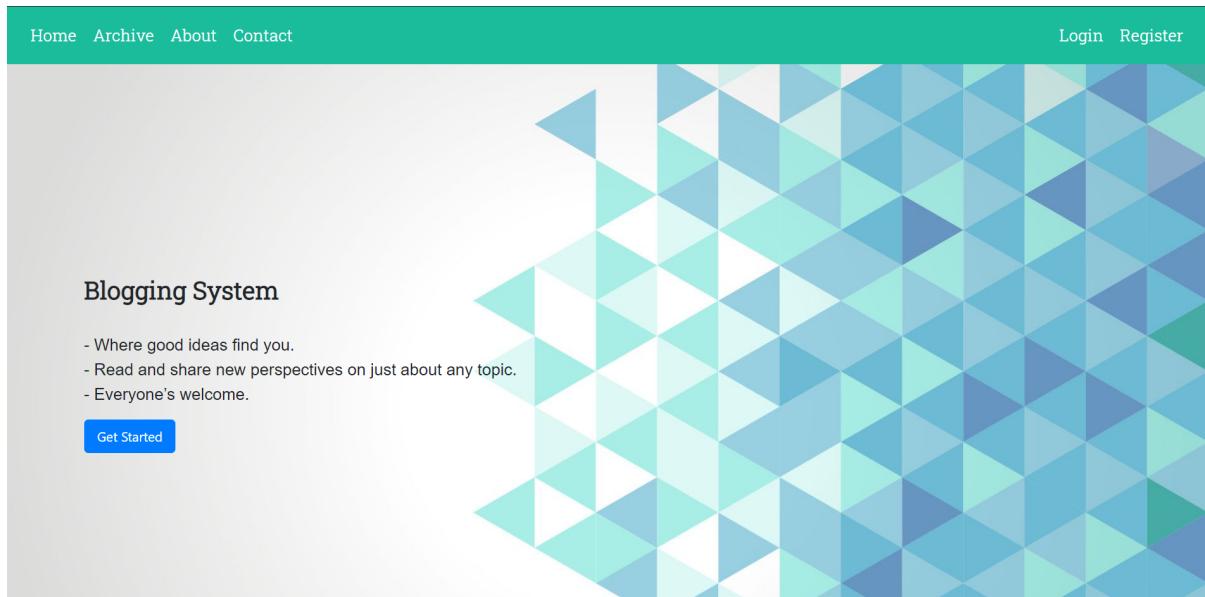
Blog

_id	Unique primary key
Author	String
Published Date	Date
Title	String
Description	String
Content	String

5. Implementation Detail and Screenshots

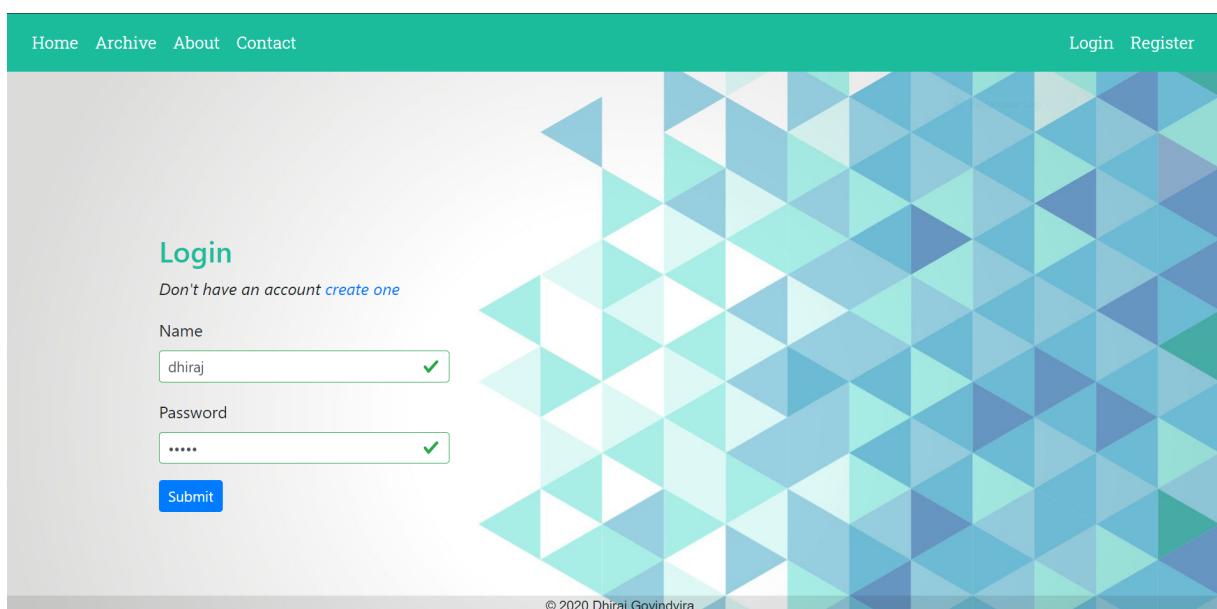
Homepage (Entry Page):

In this page there is an overview of the website ,there is navbar and gateway for login, register, archive blogs, about and contact.



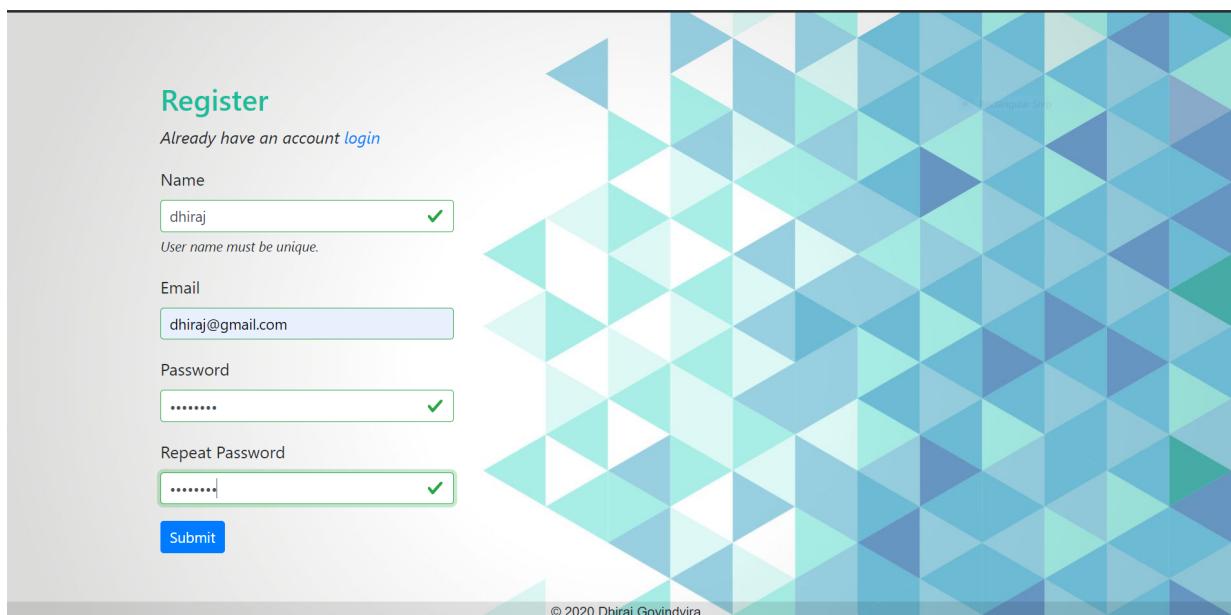
Login page:

Users have to enter unique username and password.



Register page:

A new user has to register before using the blogging system.



Register

Already have an account [login](#)

Name
 ✓
User name must be unique.

Email

Password
 ✓

Repeat Password
 ✓

Submit

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Archive blog list:

This page will contain all archive blogs created by different users in descending order.

Home Archive About Contact		Login Register
<input type="text"/> <small>Search here blog, author, published date ...</small> <input type="button" value="Create Blog"/>		
Author : dhiraj		Published : 21-Dec-2020
"Hello, World!" program		
what is hello world ? all information about it.		
Author : Deep Govindvira		Published : 21-Dec-2020
Features of C++		
C++ features like object-oriented programming, operator overloading, exception and error handling, the namespace feature, and many more.		
Author : Kushal Pandya		Published : 21-Dec-2020
What is Software Engineering?		
Software Engineering Tutorial delivers basic and advanced concepts of Software Engineering. Software Engineering Tutorial is designed to help beginners and professionals both.		
Author : Deep Govindvira		Published : 21-Dec-2020
What is Linked List?		
A linked list is also a collection of elements, but the elements are not stored in a consecutive location.		

Search blog, author

The screenshot shows a search interface with a search bar containing 'c++'. Below the search bar are two blog post cards. The first card is titled 'Features of C++' by 'Deep Govindvira' (Published: 21-Dec-2020) and describes C++ features like object-oriented programming, operator overloading, exception and error handling, the namespace feature, and many more. The second card is titled 'Bubble Sort in C++' by 'Kushal Pandya' (Published: 21-Dec-2020) and describes Bubble Sort as the simplest sorting algorithm that works by repeatedly swapping adjacent elements if they are in wrong order.

View blog content

The screenshot shows a detailed view of a blog post titled 'What is Software Engineering?' by 'Kushal Pandya' (Published: 21-Dec-2020). The post includes a title field ('What is Software Engineering?'), a description field ('Software Engineering Tutorial delivers basic and advanced concepts of Software Engineering. Software Engineering Tutorial is designed to help beginners and professionals both.'), and a content field. The content field contains a bulleted list explaining what software engineering is, mentioning it's a collection of integrated programs, organized instructions, and code written by developers in various languages, and that it involves requirements, design models, and user manuals. It also states that engineering is the application of scientific and practical knowledge to invent, design, build, maintain, and improve frameworks, processes, etc. The post concludes by stating that software engineering is an engineering branch related to the evolution of software product using well-defined scientific principles, techniques, and procedures. The result is an effective and reliable software product.

Edit blog:

(only author the blog can edit the blog)

Edit Blog

Author	Date
Kushal Pandya	21-Dec-2020
Title	
What is Software Engineering?	
Description	
Software Engineering Tutorial delivers basic and advanced concepts of Software Engineering. Software Engineering Tutorial is designed to help beginners and professionals both.	
Content	
<p>The term software engineering is the product of two words, software, and engineering. The software is a collection of integrated programs. Software subsists of carefully-organized instructions and code written by developers on any of various particular computer languages. Computer programs and related documentation such as requirements, design models and user manuals. Engineering is the application of scientific and practical knowledge to invent, design, build, maintain, and improve frameworks, processes, etc. Software Engineering is an engineering branch related to the evolution of software product using well-defined scientific principles, techniques, and procedures. The result of software engineering is an effective and reliable software product.</p>	
Cancel	Update

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6. Testing

Module	Field names	Expected output	Actual output
Login	Username & Password (true input)	Redirect to Home page	Redirect to Home page
Login	Username & Password (wrong password)	Error message and Stay to login page	Error message and Stay to login page
Sign-Up	Email (email which is already taken)	Warning message and stay to signup page	Warning message and stay to signup page

Blog	Try to create blog without logged in	Warning and redirect to the home page.	Warning and redirect to the home page.
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7. Conclusion and future work

So In this Blogging System user can read blogs of various topics and as blogs are easy to understand and by this application user can know others point of view in any area and also share their own knowledge with the world.

We will keep updating our system and add more features like follow users, add comment sections in blogs etc.

8. References

- <https://nodejs.org/en/docs/>
- <https://expressjs.com/>
- <https://mongoosejs.com/docs/>
- <https://getbootstrap.com/>
- <https://angular.io/>

Thank You