BLOGGING WEBSITE

MINI PROJECT REPORT

18CSC311J – WEB DESIGN AND DEVELOPMENT LABORATORY

(2018 Regulation)

III Year/ VI Semester

Academic Year: 2023 -2024

By

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BONAFIDE

Certified that this Mini project report titled "Blogging Website" for the course **18CSC311J** – **WEB DESIGN AND DEVELOPMENT LABORATORY** is the bonafide work of **Neha Bhardwaj RA2111028010104,Madunuri Harshini RA2111028010104** who undertook the task of completing the project within the allotted time.

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Abstract

The blogging application is a web-based platform designed to empower users to create, publish, and share their thoughts, ideas, and stories with a global audience. It provides an intuitive and user-friendly interface for both content creators and readers, enabling seamless interaction and engagement within the blogging community.

Key Features:

- User Registration and Authentication: Users can create accounts, login securely, and manage their profiles.
- Content Creation and Publishing: Users can compose blog posts using a rich text editor, add images, videos, and other multimedia elements, and publish them to the platform.
- Commenting and Social Interaction: Readers can engage with blog posts by leaving comments, liking, and sharing them on social media platforms.
- Categories and Tags: Content can be organized into categories and tagged for easier navigation and discovery.
- Search Functionality: Users can search for specific blog posts or topics of interest using keywords or filters.
- Responsive Design: The application is designed to be responsive and accessible across various devices and screen sizes.

Technology Stack:

• Frontend: HTML, CSS, JavaScript

• Backend: Node.js, Express.js

• Database: MYSQL

The blogging application aims to foster creativity, collaboration, and knowledge-sharing among its users, empowering them to express themselves and connect with like-minded individuals worldwide.

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INTRODUCTION

1.1 About the Web Application

The proposed web application is a blogging platform designed to provide users with a seamless experience for creating, publishing, and managing blog posts. It aims to offer a user-friendly interface, robust features, and reliable performance to cater to the needs of both content creators and readers.

1.2 Existing Web Applications

1.2.1. WordPress

Features:

- User-friendly interface for content creation and management.
- Customizable themes and plugins to enhance functionality.
- Built-in SEO tools for optimizing content.
- Support for multi-user collaboration.

Drawbacks:

- Complexity for beginners.
- Requires regular updates and maintenance.
- Limited flexibility without coding knowledge.

1.2.2. Blogger

Features:

- Simple and intuitive interface for creating and publishing blog posts.
- Integration with Google services like AdSense and Analytics.
- Basic customization options for templates.

Drawbacks:

- Limited design flexibility.
- Less control over customization compared to other platforms.
- Limited support for advanced features.

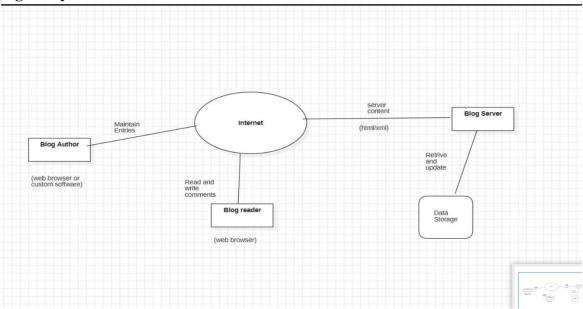
1.3 Project Objectives

The objectives of the proposed web application project are as follows:

- User-Friendly Interface: Develop a simple and intuitive user interface for easy navigation and content creation.
- Robust Content Management: Implement features for creating, editing, and organizing blog posts efficiently.
- Customization Options: Provide users with customizable themes, templates, and styling options to personalize their blogs.
- Social Interaction: Enable social sharing, commenting, and liking functionalities to promote user engagement.
- Performance Optimization: Ensure fast loading times and responsive design to enhance user experience across devices.
- Security Measures: Implement security protocols and measures to protect user data and prevent unauthorized access.
- Scalability: Design the application architecture to accommodate growth and scalability as the user base expands.
- SEO Optimization: Incorporate search engine optimization (SEO) best practices to improve visibility and discoverability of blog content.
- Analytics Integration: Integrate analytics tools to provide users with insights into their blog performance and audience engagement.
- Continuous Improvement: Establish a system for collecting user feedback and iterating on features to continually enhance the application.

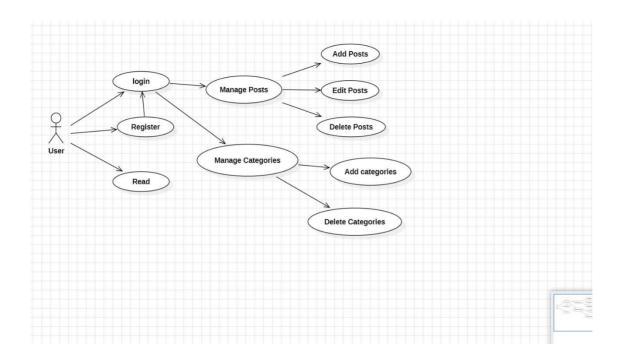
SYSTEM ARCHITECTURE

Fig.2.1 System Architecture



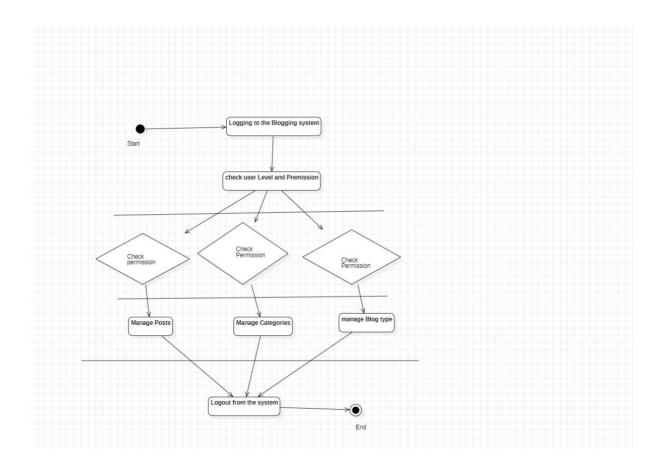
The system architecture diagram for the blogging website comprises five main components: the blog author, blog reader, data storage, blog server, and internet. The blog author creates and publishes content, which is stored in the data storage. The blog server interacts with both authors and readers, serving content over the internet to enable seamless communication between them.

Fig.2.2 Use Case Diagram



The use case diagram for the blogging website outlines interactions between users and system features. Users can register and log in, then read and manage posts. They can also manage categories by adding or deleting them, and perform actions such as adding, editing, or deleting posts within those categories.

Fig.2.3 Activity Diagram



The activity diagram illustrates the process flow within the blogging website. It begins with the user logging into the system, followed by checks for user level and permissions. Based on permissions, the user can manage posts, categories, and blog types before logging out, completing the process.

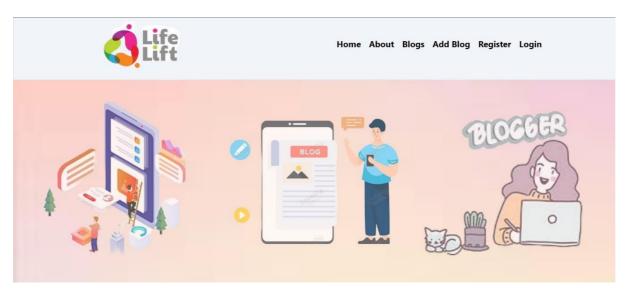
WEB SITE FRONT END IMPLEMENTATION

3.1 Tools used:

- HTML: HyperText Markup Language is the standard markup language for creating web pages and web applications.
- CSS: Cascading Style Sheets is a style sheet language used for describing the presentation of a document written in HTML.
- JavaScript: JavaScript is a programming language that enables interactive web pages and is commonly used for adding dynamic behavior to web applications.
- Frontend Frameworks/Libraries: Frontend frameworks/libraries like React.js, Angular, or Vue.js, along with Node.js, are often used to streamline development and create interactive user interfaces for web applications.
- Package Managers: Package managers like npm (Node Package Manager) or Yarn are
 used to manage project dependencies and packages, making it easier to install and
 update frontend tools and libraries.
- Code Editors/IDEs: Code editors or Integrated Development Environments (IDEs) such as Visual Studio Code, Sublime Text, or Atom are used for writing and editing HTML, CSS, and JavaScript code.
- Version Control Systems: Version control systems like Git are used to manage changes to the source code, collaborate with other developers, and track project history.

3.2 Web Page Design

3.2.1. Home Page



```
<img src="1.2.png" class="w-1/3 opacity-75">
                <img src="1.1.png" class="w-1/3 opacity-75">
                <img src="images.png" class="w-1/3 opacity-75">
        <h1 class="text-3xl font-bold mb-2">TrendingBlog</h1></center>
                <div class="flex justify-between">
                        <img src="img_1.jpeg" class="w-full h-10% hover:opacity-75 cursor-pointer"</pre>
                        <h1 class="my-2 text-4x1">How to create The best UI with Figma</h1>
                        <h1 class="my-2 text-x1">To create the best UI with Figma, focus on user-centric
design principles, utilize Figma's collaborative features, and iterate through prototyping and feedback loops
for optimal results.</h1>
                        <h1 class="my-2 text-lg"><strong>UploadOn:</strong> 6-3-2024, 1:40am</h1>
                        <h1 class="my-2 text-lg"><strong>AuthorName:</strong> FSDEV</h1>
                        <a href="UI.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-bold py-2</pre>
px-4 rounded">Read More</a>
                    <div class="box0ne w-[30%] h-[40%] border-2 border-b-slate-100 p-2 my-2 px-10 rounded-</pre>
lg">
                        <img src="img_2.jpeg" class="w-full hover:opacity-75 cursor-pointer" alt="Image 2">
                        <h1 class="my-2 text-4xl">How to use AI and ML
                        <h1 class="my-2 text-xl">AI and ML are utilized by identifying problems, collecting
and preprocessing data, selecting and training models, deploying and integrating models into systems, and
continually monitoring and maintaining them. </hl>
                        <h1 class="my-2 text-lg"><strong>UploadOn:</strong> 6-3-2024, 1:40am</h1>
                        <h1 class="my-2 text-lg"><strong>AuthorName:</strong> FSDEV</h1>
                        <a href="About.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-bold
py-2 px-4 rounded">Read More</a>
                    <div class="boxOne w-[30%] border-2 border-b-slate-100 p-2 my-2 px-10">
                        <img src="img_4.jpeg" class="w-full hover:opacity-75 cursor-pointer" alt="Image 3">
                        <h1 class="my-2 text-4x1">How Beatles made history
                        <h1 class="my-2 text-x1">The Beatles made history by revolutisssonizing music with
their innovative sound, cultural impact, and unparalleled global influence, shaping the landscape of popular
culture for generations to come .</h1>
                        <h1 class="my-2 text-lg"><strong>UploadOn:</strong> 6-3-2024, 1:40am</h1>
                        <h1 class="my-2 text-lg"><strong>AuthorName:</strong> FSDEV</h1>
                        <a href="About.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-bold
py-2 px-4 rounded">Read More</a>
                <div class="flex justify-between">
                    <div class="boxOne w-[30%] border-2 border-b-slate-100 p-2 my-3 px-10">
                        <img src="img2.jpg" class="w-full hover:opacity-75 cursor-pointer " alt="Image 1">
                        <h1 class="my-2 text-4x1">Tasty Bites:Your Guide to Simple and Delicious
```

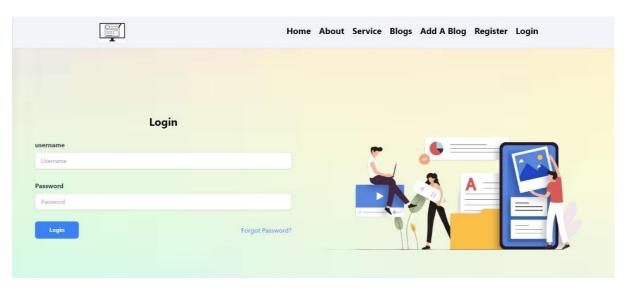
```
<h1 class="my-2 text-x1"> Tasty Bites offers a comprehensive guide to crafting simple
yet delicious dishes, perfect for both novice and seasoned chefs alike </h1>
                       <h1 class="my-2 text-lg"><strong>UploadOn:</strong> 6-3-2024, 1:40am</h1>
<h1 class="my-2 text-lg"><strong>AuthorName:</strong> FSDEV</h1>
                       <a href="About.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-bold</pre>
py-2 px-4 rounded">Read More</a>
                   <div class="boxOne w-[30%] border-2 border-b-slate-100 p-2 my-3 px-10">
                       <img src="img_3.jpeg" class="w-full hover:opacity-75 cursor-pointer" alt="Image 2">
                       <h1 class="my-2 text-4x1">Photography guide for beginners
                       <h1 class="my-2 text-x1"> A comprehensive photography guide for beginners, covering
essential techniques, equipment recommendations, and tips for capturing stunning images. </h1>
                       <h1 class="my-2 text-lg"><strong>UploadOn:</strong> 6-3-2024, 1:40am</h1>
<h1 class="my-2 text-lg"><strong>AuthorName:</strong> FSDEV</h1>
                       <a href="About.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-bold
py-2 px-4 rounded">Read More</a>
                   <div class="boxOne w-[30%] border-2 border-b-slate-100 p-2 my-3 px-10">
                       <img src="img6.jpg" class="w-full hover:opacity-75 cursor-pointer" alt="Image 3">
                       <h1 class="my-2 text-4xl">Different Land:Different Food
                       <h1 class="my-2 text-xl">Dive into 'Different Land: Different Food' for an
exploration of diverse cuisines from around the world, highlighting unique flavors, ingredients, and culinary
traditions..</hl>
                       <h1 class="my-2 text-lg"><strong>UploadOn:</strong> 6-3-2024, 1:40am</h1>
                       <h1 class="my-2 text-lg"><strong>AuthorName:</strong> FSDEV</h1>
                       <a href="About.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-bold
py-2 px-4 rounded">Read More</a>
               <footer class="relative w-full bg-black py-10 px-20 mt-12 flex justify-between">
                           Welcome to <strong>LifeLift</strong>, your ultimate
destination for health, wellness, and personal growth.
                           <a href="#"><i class="bx bxl-facebook text-</pre>
white"></i></a>
                               <a href="#"><i class="bx bxl-instagram text-</pre>
                               <a href="#"><i class="bx bxl-twitter text-</pre>
white"></i></a>
                               <a href="#"><i class="bx bxl-linkedin text-white"></i></a>
                           <h2 class="relative text-white mb-4">Quick Links</h2>
                               <a href="#" class="text-gray-400 hover:text-</pre>
white">Home</a>
                               <a href="About.html" class="text-gray-400 hover:text-</pre>
white">About</a>
                       <div class="sec contactBx">
                           <h2 class="relative text-white mb-4">Contact Info</h2>
                           <span class="mr-2"><i class='bx bxs-map text-white'></i></span>
                                   Uk</span>
```

3.2.2. Registration page



```
cbody class="overflow-x-hidden">
    <div class="navbar flex bg-slate-100 justify-around items-center w-screen max-h-72 border-2 p-4">
        <div class="logo">
            <img src="logo.jpg" alt="" class="max-h-14">
        <div class="links text-2xl font-bold mb-2">
            <a href="index.html">Home</a>
            <a href="About.html" class="ml-4">About</a>
            <a href="#" class="ml-4">Service</a>
            <a href="Blogs.html" class="ml-4">Blogs</a>
            <a href="addblog.html" class="ml-4">Add A Blog</a>
            <a href="Register.html" class="ml-4">Register</a>
            <a href="Login.html" class="ml-4">Login</a>
                <img src="reg.png" alt="Image" class="w-full h-auto">
            <div class="w-1/2">
                <form class="bg-opacity-25 border-4 rounded-lg px-20 py-12">
                    <center><h1 class="text-3xl font-bold mb-2">Registration</h1></center>
                        <label class="block text-gray-700 text-lg font-bold mb-2" for="username">
                            Username
                        <input class="shadow appearance-none border rounded-lg w-full py-3 px-4 text-gray-700</pre>
leading-tight focus:outline-none focus:shadow-outline" id="username" type="text" placeholder="Username"
                    <div class="mb-6">
                        <label class="block text-gray-700 text-lg font-bold mb-2" for="email">
                            Email
                        <input class="shadow appearance-none border rounded-lg w-full py-3 px-4 text-gray-700</pre>
leading-tight focus:outline-none focus:shadow-outline" id="email" type="email" placeholder="Email">
                        <label class="block text-gray-700 text-lg font-bold mb-2" for="password">
                            Password
                        <input class="shadow appearance-none border rounded-lg w-full py-3 px-4 text-gray-700</pre>
leading-tight focus:outline-none focus:shadow-outline" id="password" type="password" placeholder="Password">
                        <label class="block text-gray-700 text-lg font-bold mb-2" for="confirmPassword">
                            Confirm Password
                        <input class="shadow appearance-none border rounded-lg w-full py-3 px-4 text-gray-700</pre>
leading-tight focus:outline-none focus:shadow-outline" id="confirmPassword" type="password"
placeholder="Confirm Password">
                        <button class="bg-blue-500 hover:bg-blue-700 text-white font-bold py-3 px-6 rounded-
lg focus:outline-none focus:shadow-outline" type="submit";
                            <a href="success.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-
bold py-2 px-4 rounded">Register</a>
                        <a class="inline-block align-baseline text-lg text-blue-500 hover:text-blue-800"</pre>
href="#">
                            Already have an account? Login
```

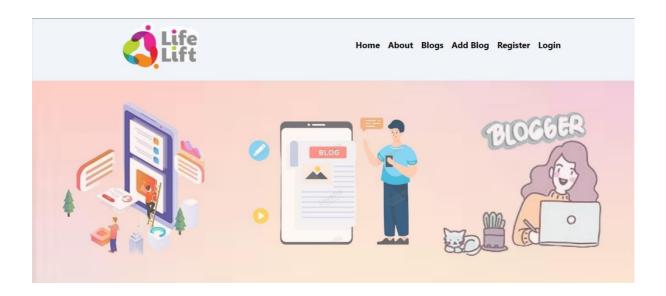
3.2.3 Login Page



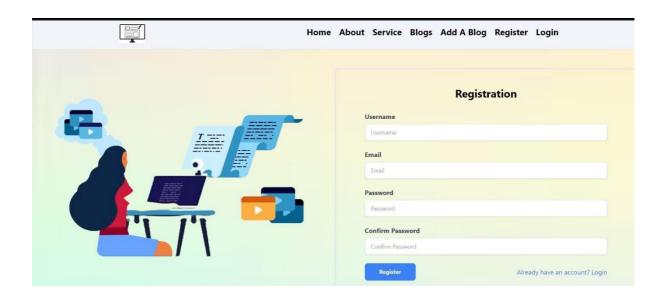
```
!DOCTYPE html>
<html lang="en">
  <meta charset="UTF-8">
   <meta http-equiv="X-UA-Compatible" content="IE=edge">
   <meta name="viewport" content="width=device-width, initial-scale=1.0">
   <title>Login</title>
   <link rel="shortcut icon" href="logo.jpg" type="image/png">
<body class="overflow-x-hidden">
   <div class="bg-cover bg-center" style="background-image: url('bg3.jpeg');">
   <div class="navbar flex bg-slate-100 justify-around items-center w-screen max-h-72 border-2 p-4">
           <img src="logo.jpg" alt="" class="max-h-14">
       <div class="links text-2xl font-bold mb-2">
           <a href="index.html">Home</a>
           <a href="About.html" class="ml-4">About</a>
           <a href="#" class="ml-4">Service</a>
           <a href="Blogs.html" class="ml-4">Blogs</a>
           <a href="addblog.html" class="ml-4">Add A Blog</a>
           <a href="Register.html" class="ml-4">Register</a>
           <a href="Login.html" class="ml-4">Login</a>
```

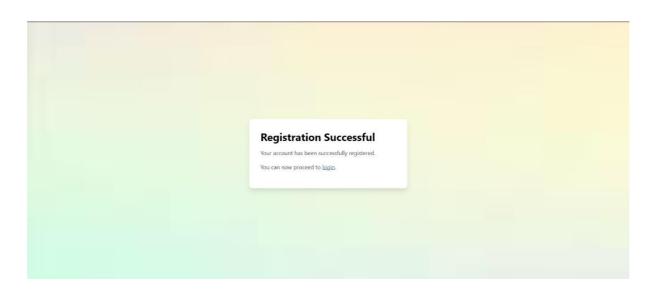
```
<div class="bg-cover bg-center" style="background-image: url('bg3.jpeg');">
        <div class="flex justify-center items-center h-screen">
            <div class="w-1/2">
                <form action="/" method="POST" class="bg-opacity-25 border-4rounded-lg px-16 py-12 mb-8">
                    <center><h1 class="text-3xl font-bold mb-2">Login</h1></center>
                    <div class="mb-8">
                        <label class="block text-gray-700 text-lg font-bold mb-2" for="username">
                            username
                        <input class="shadow appearance-none border rounded-lg w-full py-3 px-4 text-gray-700</pre>
leading-tight focus:outline-none focus:shadow-outline" id="username" type="text" placeholder="Username">
                        <label class="block text-gray-700 text-lg font-bold mb-2" for="password">
                            Password
                        <input class="shadow appearance-none border rounded-lg w-full py-3 px-4 text-gray-700</pre>
leading-tight focus:outline-none focus:shadow-outline" id="password" type="password" placeholder="Password">
                    <div class="flex items-center justify-between">
                        <button class="bg-blue-500 hover:bg-blue-700 text-white font-bold py-3 px-6 rounded-</pre>
lg focus:outline-none focus:shadow-outline" type="button">
                            <a href="welcome.html" class="mt-2 bg-blue-500 hover:bg-blue-700 text-white font-</pre>
bold py-2 px-4 rounded">Login</a>
                        <a class="inline-block align-baseline text-lg text-blue-500 hover:text-blue-800"</pre>
href="#">
                            Forgot Password?
            <div class="w-1/2">
```

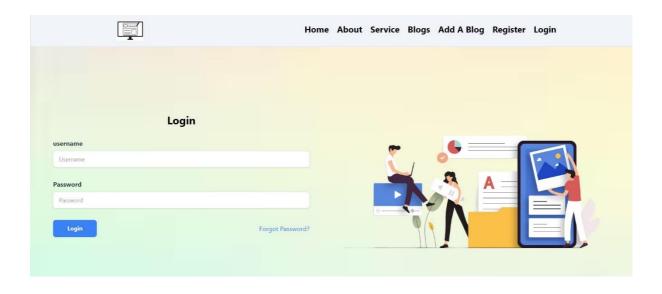
3.3 Screenshots



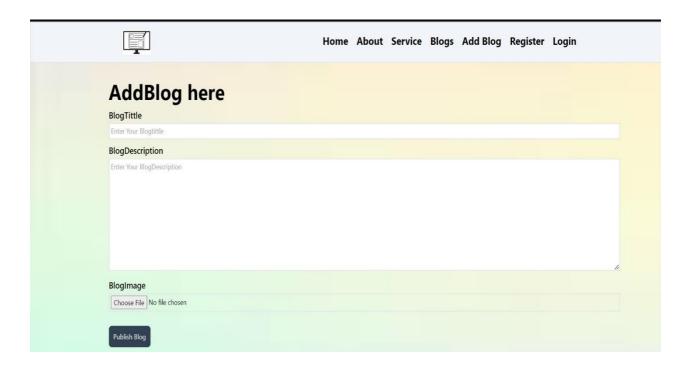


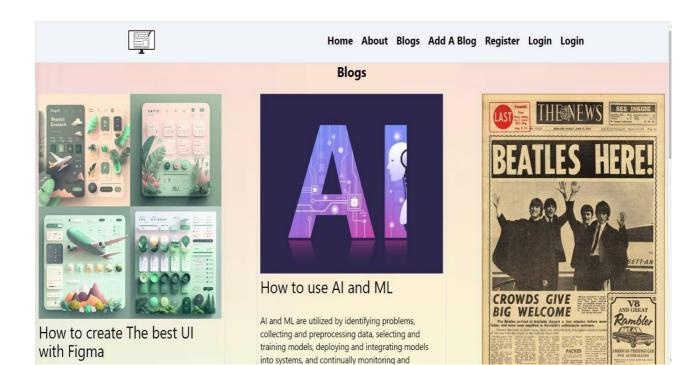












WEB SITE BACK-END IMPLEMENTATION

4.1 Tools used

Node.js: A JavaScript runtime environment that allows developers to execute JavaScript code outside a web browser, making it suitable for server-side development.

Express.js: A web application framework for Node.js that simplifies the process of building server-side applications and APIs.

Database Management System: Tool MySQL are commonly used to store and manage data for web applications.

4.2 Code for Back-end

```
const mysql=require("mysql");
const express =require("express");
const bodyParser=require("body-parser");
const encoder = bodyParser.urlencoded();
const connection = mysql.createConnection({
   host: "localhost",
    password: "1234",
    database: "login
});
connection.connect(function(error){
    if(error) throw error
    else console.log("connected to the database successfully!")
app.get("/",function(req,res){
   res.sendFile(__dirname +"/Login.html");
app.post("/",encoder,function(req,res){
    var username =req.body.username;
    var password = req.body.password;
   connection.query("select *from loginpage where username=kumariharshita682@gmail.com and
password=password", function(error,results,fields){
   if(results.length>0){
           res.redirect("/welcome");
           res.redirect("/");
        res.end();
app.get("/welcome",function(req,res){
    res.sendFile(__dirname + "/welcome.html")
app.listen(3000);
```

DATABASE DESIGN

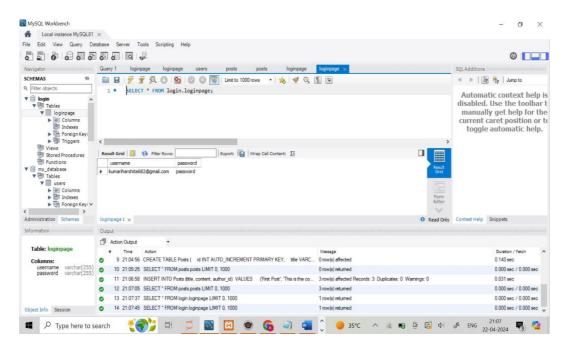
5.1 Database used:

For the mini-project, we will use MySQL as the database management system (DBMS). MySQL is a popular open-source relational database that provides robust features for storing and managing data.

5.2 Database schema and Tables

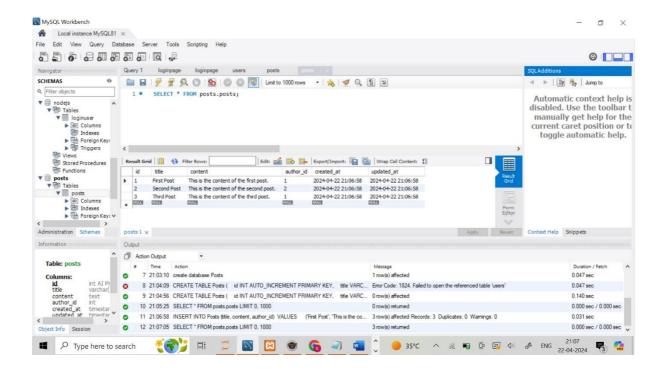
Loginpage Table:

- username (Unique)
- password



Posts Table:

- id (Primary Key, Auto Increment)
- title
- content
- author_id (Foreign Key referencing id in Users Table)
- created_at
- updated_at



5.3 Database Connectivity:

To connect to the MySQL database from the backend server (Node.js), we can use libraries like mysql Here's an example of how to establish a connection using the mysql library:

```
const mysql=require("mysql");
const express =require("express");
const bodyParser=require("body-parser");
const encoder = bodyParser.urlencoded();
const connection = mysql.createConnection({
    password:"1234"
    database:"login
});
connection.connect(function(error){
    if(error) throw error
    else console.log("connected to the database successfully!")
app.get("/",function(req,res){
    res.sendFile(__dirname +"/Login.html");
app.post("/",encoder,function(req,res){
    var username =req.body.username;
    var password = req.body.password;
    connection.query("select *from loginpage where username=kumariharshita682@gmail.com and
password=password", function(error,results,fields){
        if(results.length>0){
            res.redirect("/welcome");
```

```
}else{
    res.redirect("/");
}
res.end();
})

app.get("/welcome",function(req,res){
    res.sendFile(__dirname + "/welcome.html")
})

app.listen(3 000);
```

CONCLUSION AND FUTURE WORK

Conclusion

In conclusion, the development of the blogging application has been a significant endeavor aimed at providing users with a platform to share their thoughts, ideas, and stories. Through the implementation of features such as user registration, content creation, and social interaction, the application has successfully achieved its primary objectives of facilitating content creation and fostering community engagement.

One of the notable achievements of the project is the seamless integration of frontend and backend components, resulting in a user-friendly and responsive application interface.

However, it's important to acknowledge some limitations encountered during the development process. These include challenges in optimizing database performance for scalability and handling concurrent user interactions efficiently. Addressing these issues will be crucial for enhancing the overall performance and scalability of the application.

Future Work

- Moving forward, several areas of future work and improvement have been identified to enhance the functionality and usability of the blogging application:
- Performance Optimization: Implementing database indexing and caching mechanisms to improve query performance and reduce response times, especially during peak usage periods.
- Enhanced User Experience: Incorporating additional features such as real-time notifications, personalized content recommendations, and user analytics to enhance user engagement and satisfaction.
- Accessibility and Localization: Ensuring compliance with accessibility standards and supporting multiple languages to cater to a diverse global audience and improve inclusivity.
- Integration with External Services: Integrating with social media platforms, content management systems, and analytics tools to extend the reach of the application and provide valuable insights to users and administrators.
- Continuous Testing and Iterative Development: Implementing automated testing procedures and adopting an iterative development approach to identify and address bugs, user feedback, and evolving requirements effectively.

Overall, the blogging application holds great potential for further development and expansion, with the opportunity to become a leading platform for content creators and readers alike.

References

https://www.blogger.com/about/?bpli=1

https://blog.google/intl/en-in/

https://newbreedtraining.com/blog/?gad_source=1&gclid=Cj0KCQjwlZix

BhCoARIsAIC745CalztK2B9TV-Dom0GVo83AH2-

DPw97W8Rav1dHOo1Tvk9EBsPdnXoaAnwMEALw_wcB

https://www.wix.com/blog/what-is-a-blog

https://youtu.be/Pup-yi4oMfU?si=Bu0C6L-G5YSRqER4

https://youtu.be/Mn0rdbJPWEo?si=mi5oMTM-EX06X_4n

https://youtu.be/QOQ2XV2n-pk?si=0zGsqWAI6BIZ0A09

https://youtu.be/eIjbSH3Imb8?si=84y3lxSxmwyaTlCu

https://youtu.be/3GrH9AwRTi4?si=6jRjoJmnAib5Tmbw

https://youtu.be/c6zI1gCaO-c?si=gNL7fNh0owl7wHVy

Github Link: https://github.com/Harshita7586/Blogging-Website