Bahria University,

Karachi Campus



COURSE: WEB ENGINEERING TERM: FALL 2024, CLASS: BSE- 5 (A/B)

PROJECT NAME:

BLOGGGING APPLICATION

Engr. Adnan-u-Rahman / Engr. Ayesha Khan

Signed Remarks: Score:

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2. INTRODUCTION & PROBLEM

INTRODUCTION:

In the dynamic landscape of web development, the integration of modern technologies has given rise to versatile applications catering to diverse needs. Our Blogging Application, built on the MERN (MongoDB, Express.js, React, Node.js) stack, represents a sophisticated platform designed to streamline content creation, publication, and interaction within a digital community.

PROBLEM STATEMENT:

Traditional blogging platforms often face limitations in terms of user experience, flexibility, and real-time engagement. This project addresses these challenges by leveraging the MERN stack to create a robust, feature-rich, and user-friendly blogging application. The goal is to overcome common pitfalls in existing systems, offering an intuitive interface, dynamic content management, and enhanced user interaction. This application seeks to redefine the blogging experience by combining the power of MERN technologies with innovative features for both content creators and readers.

3. TECHNOLOGY

The application leverages cutting-edge technologies:

- Frontend: React, Redux, Jodit, HTML React Parser
- Backend: Node.js, Express.js, MongoDB
- Authentication: JWT, bcrypt, Otp Generator, Validator
- **Serverside Libraries**: Node mailer, Formidable, Date-and-Time, JWT-Decode, React-Hot-Toaster, body-parser, cookie-parser, cors, dotenv, mongoose, email js, validator
- **Frontend Libraries**: React, React router dom, react-redux, redux-thunk, moment js, jodit text editor, react hot toast, react helmet, axios, react-apexcharts, react-html-parser, html-to-text

4. FUNCTIONALITIES & FEATURES

Blogify encompasses a wide array of functionalities, including:

- User Authentication and Authorization
- Admin Authentication and Authorization
- Admin create blog Category and Tag
- Admin handle all Sub-Admin (Bloggers) and Admin can see Profile of Sub-Admin and do block/unblock Sub-Admin
- Article Publishing, Editing, and Deletion
- Articles are in pending mode unless Admin do not accept and publish them
- User like, dislike blogs and write comment also.
- Search Blog System
- Admin Panel for Comprehensive Content Management
- Real-Time Interaction with Articles
- Multi-Level User Access
- Graphical Insights into User Engagement
- Security Measures with JWT Tokens, bcrypt, and OTP Generation

5. MODULE DISTRIBUTION

• Muhammad Shoaib Akhter Qadri:

He is working on Frontend, backend with database. He is responsible for working on frontend with backend with database (Mongo DB Atlas) and work on different libraries for authentication etc. He is working to run applications on server side and client side also.

Muhammad Yahya:

He is working on Frontend, and he has responsible to make responsive application and create different pages like home, 404 page, admin and sub-admin panel with different functionalities and feature like category, tags, comments, user, sub-admin and article post pages.

6. CODE

```
const validator =
                                        const jwt =
                                                                                const nodeMiler =
                                        require('jsonwebtoken');
require('validator');
                                                                                require('nodemailer')
const adminModel =
                                        const formidable =
                                                                                const fs = require('fs')
require('../models/adminModel';
                                        require('formidable')
                                                                                module.exports.admin_login =
const bcrypt = require('bcrypt');
                                        const userModel =
                                                                                async (req, res) => {
                                        require('../models/userModel');
```

<pre>const { email, password } = req.body;</pre>	<pre>}, process.env.SECRET, { expiresIn: '7d' });</pre>	const errorData = {}
		if (!name) {
const error = {} if (email &&	res.status(200).cookie('blog_tok en', token, {	errorData.name = 'Please provide your name'}
!validator.isEmail(email)) {	expires: new Date(if (!email) {
error.email = "please provide your valid email"}	Date.now() + process.env.COOKIE_EXP * 24 * 60 * 60 * 1000),	errorData.email = 'Please provide your email'}
<pre>if (!email) { error.email = "please provide</pre>	httpOnly: true}).json({	<pre>if (email && !validator.isEmail(email)) {</pre>
your email";}	successMessage: 'login	errorData.email = 'Please
if (!password) {	successful',	provide your valid email'}
error.password = "please	token})} else {	if (!password) {
provide your password"} if (Object.keys(error).length >	return res.status(400).json({ errorMessage: { error: "Password does not match"	errorData.password = 'Please provide your password'}
0) {	}});}} else {	if (Object.keys(files).length
return res.status(400).json({	return res.status(400).json({	=== 0) {
errorMessage: error }) } else {try {	errorMessage: { error: "Email does not exits" } });}} catch	errorData.image = 'Please provide your image'}
<pre>const getAdmin = await adminModel.findOne({ email }).select('+password');</pre>	<pre>(error) { console.error(error); return res.status(500).json({</pre>	if (Object.keys(errorData).length === 0) {
if (getAdmin) {	errorMessage: { error: "Internal server error" } });}}}	try {
<pre>const matchPassword = await bcrypt.compare(password, getAdmin.password);</pre>	module.exports.user_register = async (req, res) => {	<pre>const getUser = await userModel.findOne({ email })</pre>
if (matchPassword) {	<pre>const formData = formidable()</pre>	if (getUser) {
const token = jwt.sign({	formData.parse(req, async (err, fields, files) => {if (err) {	return res.status(500).json({ errorMessage: { error: "Your
id: getAdminid,		email already use" } });} else {
name: getAdmin.adminName,	return res.status(500).json({ errorMessage: { error: "form data perso filed"	<pre>const otp = Math.floor(Math.random() *</pre>
role: getAdmin.role,	data parse filed" } });} else {	100000 + 345678)
image: getAdmin.image	<pre>const { name, email, password } = fields</pre>	<pre>const transporter = nodeMiler.createTransport({</pre>
	ζ	

service: 'Gmail',	imageInfo: files,	jwt.verify(emailVerifyToken,
auth: {	otpCode: otp	process.env.SECRET)
user:	}, process.env.SECRET, {	const imageName = Date.now()
process.env.USER_EMAIL,	expiresIn:	+ imageInfo.image.originalFilena
pass: process.env.USER_PASSWOR	process.env.TOKEN_EXP})	me;
D}})	const option = {	const disPath =dirname +
const mailOption = {	expires: new Date(Date.now() + 1 * 24 * 60 * 60 * 1000)}	`//frontend/public/userImag e/\${imageName}`
from: process.env.USER_EMAIL,	res.status(201).cookie('emailVe	
	rifyToken', verifyEmailToken,	try {
to: email,	<pre>option).json({ successMessage: "Check your email and submit otp" })}})</pre>	if (parseInt(otp) !== otpCode) {
subject: 'Sending email blog',		res.status(404).json({
html: ` <div style={padding:"10px"}></div 	} catch (error) {	errorMessage: { error: 'please
<h3>Your otp code</h3>	return res.status(500).json({ errorMessage: { error: "Internal server error" } });}} else {	<pre>provide your valid otp' } })} else {</pre>
\${otp}		fs.copyFile(imageInfo.image.fil epath, disPath, async (err) => {
`}	return res.status(400).json({ errorMessage: errorData })}}})} module.exports.verify_email = async (req, res) => { const { otp } = req.body	
transporter.sendMail(mailOptio		if (!err) {
n, async (error) => {		const createUser = await
if (error) {		userModel.create({
return res.status(500).json({		userName: name,
errorMessage: { error: "Somethings else please try	const { otp } = req.cody const { emailVerifyToken } = req.cookies	email,
again" } });		loginMethod: 'manually',
} else {	if (!otp) {	password,
const verifyEmailToken =	res.status(404).json({	image: `http://localhost:3000/userImag
jwt.sign({	errorMessage: 'please provide your otp' })	e/\${imageName}`})
email,	} else {	<pre>const token = jwt.sign({</pre>
name,	const { name, email, password, otpCode, imageInfo } = await	id: createUserid,
password: await bcrypt.hash(password, 10),		email: createUser.email,
VI VI / -//		,

name: createUser.userName,

image: createUser.image,

role: createUser.role,

loginMethod:

createUser.loginMethod,

accessStatus:

createUser.accessStatus,

createdAt: createUser.createdAt

}, process.env.SECRET, {

expiresIn:

process.env.TOKEN_EXP})

const option = {

expires: new Date(Date.now() +

3 * 24 * 60 * 60 * 1000)}

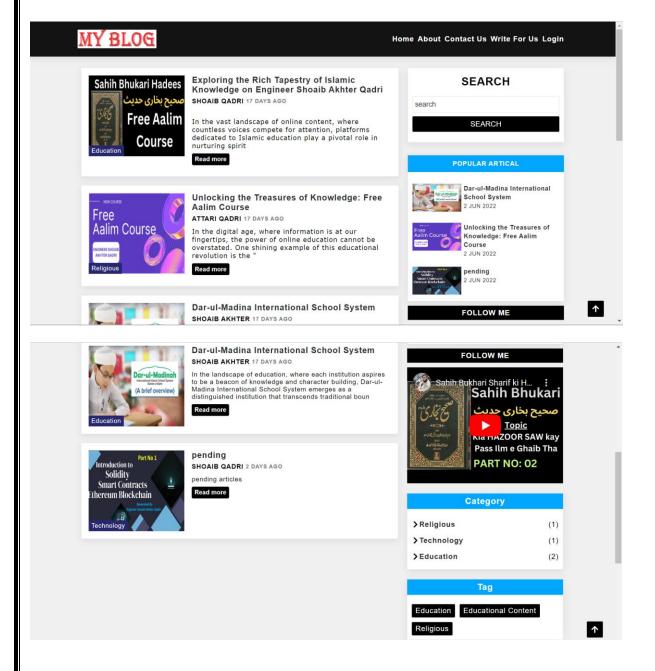
res.clearCookie('emailVerifyTo ken')

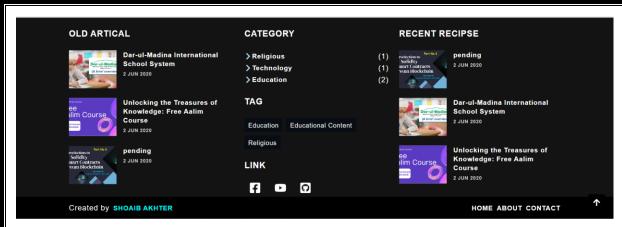
res.status(201).cookie('blog_tok en', token, option).json({

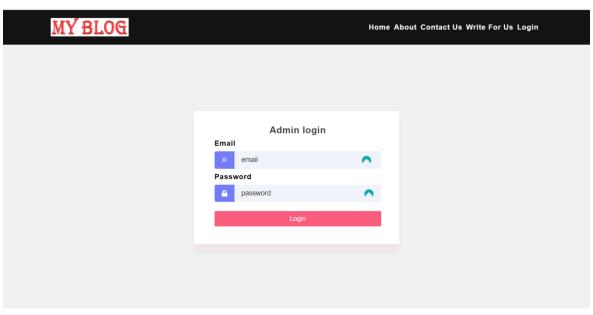
successMessage: "Your register

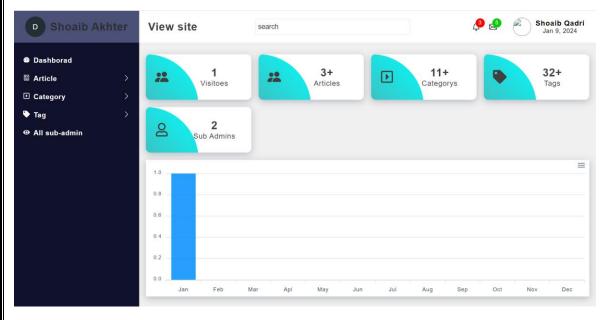
successful"

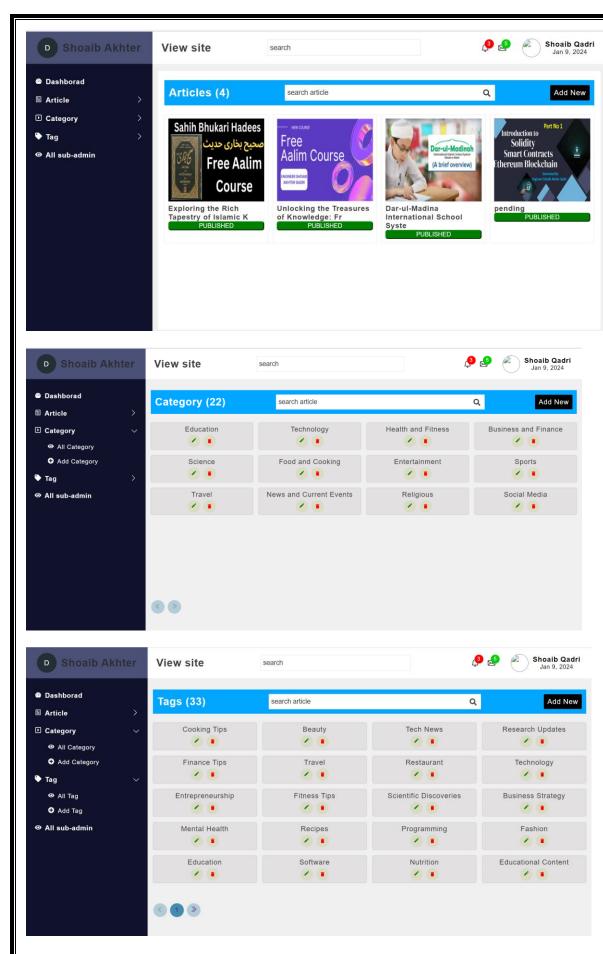
7. INTERFACES

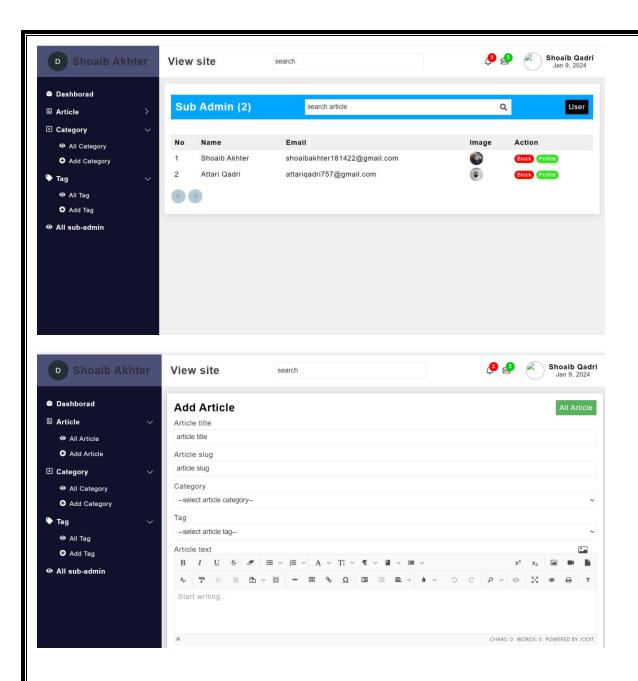












8. CONCLUSION

Blogify stands as a testament to the capabilities of modern web technologies. Its feature-rich environment, coupled with a secure and user-friendly design, positions it as a top-tier blogging application. The project successfully integrates multiple technologies to deliver a comprehensive solution for content creators and readers, making it a noteworthy contribution to the realm of online publishing.