

# Blog Website

Name: Devesh Mahajan

ID: UMIP25776

Domain: Full Stack Web Development

Type: Basic Project

Sr. No.	Section	Page No.
1	Introduction	2
2	Objective	2
3	Technologies Used	3
4	Features	7
5	Working	9
6	Summary	15

## **Introduction:**

Welcome to our Blog Website, a dynamic platform built using the MERN stack (MongoDB, Express.js, React, Node.js) designed for seamless content creation and management. This application allows users to explore a variety of blog posts while ensuring that only authorized authors can edit or delete their content. With a robust authentication and authorization system, the platform guarantees secure access, allowing authors to manage their posts with ease. Whether you're a reader exploring fresh insights or an author refining your work, our blog website offers an intuitive, secure, and interactive experience for all users.

## **Objective:**

- Implement a secure login system where users can sign up, log in, and access the platform. Ensure that only authorized users, specifically the authors, can edit or delete their own blog posts, maintaining proper access control.
- Provide a simple and user-friendly interface for authors to create, edit, and delete their blog posts. Ensure that the content is stored securely in a MongoDB database and can be easily retrieved and displayed for readers.
- Enable users to read blog posts, comment on them, and share their thoughts, creating an engaging platform for knowledge sharing and community interaction.
- Enable real-time updates to the blog content, ensuring that users always see the latest posts and changes made by the authors.

## Technologies Used:

- **JavaScript:** JavaScript is a high-level, versatile, and interpreted programming language primarily used to create interactive and dynamic content on websites. It is a core technology of the web, alongside HTML and CSS, enabling developers to build responsive and feature-rich user interfaces.
- **HTML:** HTML (HyperText Markup Language) is the standard language used to create and structure content on the web. It uses a system of tags to define elements such as headings, paragraphs, links, images, and more.
- **CSS:** CSS (Cascading Style Sheets) is a language used to style and layout HTML content on web pages. It controls the appearance of elements, such as colors, fonts, spacing, and overall design.
- **Vite:** Vite is a modern front-end build tool and development server designed for fast and efficient development. It is particularly popular for projects using frameworks like React, Vue, and Svelte.
- **ReactJS:** ReactJS is a popular JavaScript library for building dynamic, interactive, and reusable user interfaces, especially for single-page applications (SPAs). It was developed by Facebook and is maintained by Meta and an open-source community.
- **Axios:** Axios is a popular, promise-based JavaScript library used for making HTTP requests, typically in web applications. It simplifies the process of sending requests and handling responses, especially in applications built with frameworks like React, Angular, or Vue.js. Axios provides an easy-to-

use API and supports features like interceptors, automatic transformation of request and response data, and error handling.

- **React-icons:** React Icons is a popular library for integrating scalable vector icons into React applications. It provides a set of icons from various icon libraries, including Font Awesome, Material Design, and many others, making it easier to add icons without needing to import large image files or manually handle SVGs. The icons are fully customizable in terms of size, color, and style, and are designed to be lightweight and easy to use.
- **React-quill:** React Quill is a powerful, customizable, and easy-to-use rich text editor for React applications. It is a wrapper around the popular Quill.js editor, which is a lightweight, flexible, and extensible rich text editor built with modern web standards. React Quill allows you to integrate the Quill editor into React applications with minimal effort while maintaining full control over its configuration and features.
- **React-time-ago:** react-time-ago is a simple and lightweight React component used to display timestamps in a human-readable, "time ago" format (e.g., "5 minutes ago", "2 days ago", "3 weeks ago"). It automatically updates the displayed time as the moment of the event gets older, providing an easy way to show relative time for dates or times. This is particularly useful for applications like social media platforms, messaging apps, or blog posts where showing time in a dynamic, user-friendly manner is important.
- **BcryptJs:** bcryptjs is a JavaScript library used for hashing passwords and securely comparing passwords in Node.js applications. It is a pure JavaScript implementation of the bcrypt hashing algorithm, designed to be lightweight and easy to use. bcrypt is widely used in authentication systems to securely store user passwords and prevent attackers from accessing them even if the password database is compromised.

- **Express-fileupload:** express-fileupload is a simple middleware for handling file uploads in Express.js applications. It allows users to upload files through HTTP requests, and it can handle files from HTML forms and POST requests.
- **Jsonwebtoken:** jsonwebtoken is a library used to sign and verify JSON Web Tokens (JWTs). JWTs are a compact, URL-safe way of representing claims to be transferred between two parties. They are commonly used for authentication and authorization in web applications.
- **UUID:** uuid is a library used to generate universally unique identifiers (UUIDs). UUIDs are 128-bit numbers used to uniquely identify objects or records in distributed systems, databases, and applications. It is especially useful when creating unique IDs for database entries or session identifiers.
- **Cors:** CORS (Cross-Origin Resource Sharing) is a security feature implemented by web browsers that allows or restricts web applications running at one origin (domain) to make requests for resources from a different origin. It is designed to prevent malicious websites from accessing resources and data from other domains without permission.
- **Dotenv:** Dotsenv is a zero-dependency module for managing environment variables in Node.js applications. It loads environment variables from a .env file into process.env, which is the global object in Node.js that stores environment variables. By using dotenv, you can keep sensitive information like API keys, database credentials, or configuration settings out of your codebase, improving security and flexibility.
- **Express:** Express is a minimal and flexible web application framework for Node.js, designed to simplify the process of building web applications and APIs. It provides a robust set of features that make it easy to handle routing,

middleware, and HTTP requests and responses, allowing developers to focus on building their application logic rather than managing low-level details.

- **Mongoose:** Mongoose is an Object Data Modeling (ODM) library for MongoDB and Node.js. It provides a straightforward way to interact with MongoDB from a Node.js application by mapping MongoDB documents to JavaScript objects. Mongoose helps to manage the relationship between data, provides schema validation, and simplifies CRUD operations.
- **MongoDB:** MongoDB is a popular NoSQL database that stores data in a flexible, document-oriented format using collections and documents instead of traditional tables and rows, as in relational databases. MongoDB is designed to handle large volumes of data with high scalability and flexibility, making it suitable for modern web applications, real-time analytics, and big data projects.

## Features:

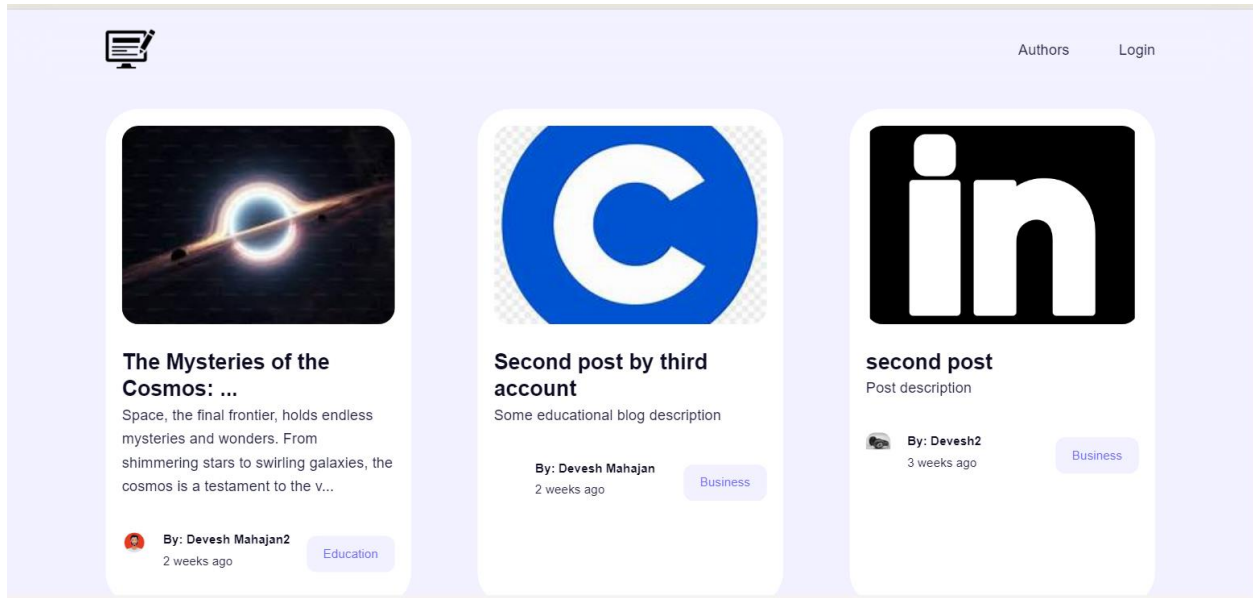
- **Authentication and Authorization:** Users can sign up by providing their username, email, and password. Users can log in securely using their credentials. JWT (JSON Web Tokens) is used for session management. Only the author of a blog post can edit or delete their own posts. Users can't modify other users' posts, ensuring proper access control.
- **Responsiveness:** Responsiveness in websites refers to the design and development approach that ensures a website looks and functions well on a wide variety of devices and screen sizes, including desktops, tablets, and mobile phones.
- **Profile Management:** Users can view and edit their profile information, including: Update personal details (name, email, etc.) Upload a profile picture Change password securely (with proper validation)
- **Session Management:** Using JWTs, users can remain logged in between sessions. The JWT token is passed in the request header for authenticated routes.
- **Blog Post Management:** Users can create new blog posts by providing a title, thumbnail, body content, and selecting a category (e.g., education, business, art). Authors can edit their own blog posts. Authors can delete their own blog posts. Unauthorized users cannot delete any blogs.
- **Blog Display and Filter:** Blogs are categorized into different sections such as education, art, business, etc. Users can filter and view blogs based on categories. Clicking on a blog title takes the user to the full blog post, showing: Full content of the blog, Author details (name, profile picture), Time of creation and last update.

- **Security:** Passwords are securely hashed and stored using bcryptjs to protect user information. Secure token-based authentication is used to protect routes that require authentication, and JWTs are sent with each request for validation.

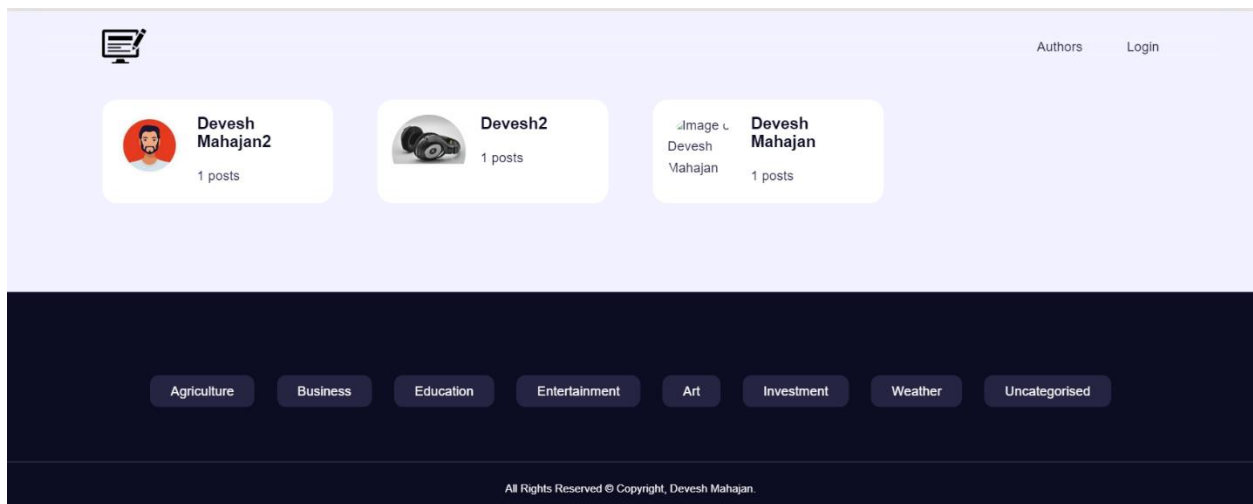


## Working:


### a) Home Design



### b) Authors Page (Along with footer)



### c) Login Page



AuthorsLogin

## Login


devesh.mahajan@somaiya.edu

\*\*\*\*\*

Login

Don't have an account? [sign up](#)

### d) Registration Page



AuthorsLogin

## Sign Up

DEVESH MAHAJAN

example2@gmail.com

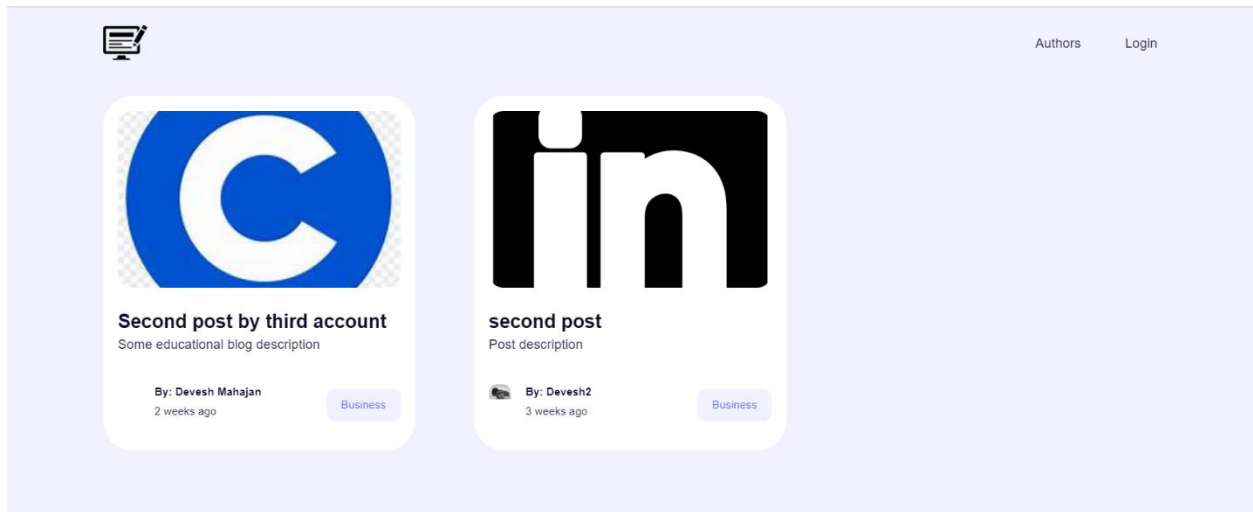
\*\*\*\*\*

\*\*\*\*\*

Register

Already have an account? [sign in](#)


### e) Selecting Posts by category (Category Business)



## f) Create New Post Page


A screenshot of the 'Create Post' page in a web application. The page has a light purple background. At the top, there is a navigation bar with a menu icon, 'Devesh2', 'Create Post', 'Authors', and 'Logout'. The main content area is titled 'Create Post'. It contains a 'Title' input field, a category dropdown menu currently showing 'Uncategorized', and a rich text editor with a toolbar containing icons for bold, italic, underline, link, quote, list, indent, outdent, link, unlink, image, video, and code. Below the editor is a file upload section with a 'Choose File' button and the text 'No file chosen'. At the bottom is a blue 'Create' button.

## g) Profile Page



Devesh2Create PostAuthorsLogout


My Posts




Devesh2

Update Details

## h) My Posts Page (Posts of current User)



Devesh2Create PostAuthorsLogout




second post

ViewEditDelete

AgricultureBusinessEducationEntertainmentArtInvestmentWeatherUncategorised

All Rights Reserved © Copyright, Devesh Mahajan.

### i) Edit Post Page



Devesh2Create PostAuthorsLogout

## Edit Post

second post

Uncategorized

Normal ↕ B I U ↺ ” ☰ ☷ ☹ ☲ 🔗 📎 ✎

Post description

Choose File No file chosen

Update

### j) Post Details Page

[Devesh2](#)[Create Post](#)[Authors](#)[Logout](#)

 By: Devesh Mahajan2  
2 weeks ago

## The Mysteries of the Cosmos: A Journey Beyond Earth



Space, the final frontier, holds endless mysteries and wonders. From shimmering stars to swirling galaxies, the cosmos is a testament to the vastness of our universe. With every rocket launch, humanity takes one step closer to unraveling its secrets. Black holes devour light, exoplanets hint at alien worlds, and nebulae create celestial art. The James Webb Space Telescope offers breathtaking glimpses of the unknown, inspiring curiosity. As we explore beyond Earth, space reminds us of our small yet significant place in the universe. The cosmos beckons—an infinite

## Summary:

The Blog Website is a feature-rich platform built using the MERN stack (MongoDB, Express.js, React, Node.js) that provides users with a seamless experience for creating, managing, and interacting with blog content. It offers secure user authentication and authorization, ensuring that only the authors of blog posts can edit or delete their content. The platform allows users to sign up, log in, and manage their profiles, including uploading profile pictures and securely changing passwords. Authors can create, edit, and delete their own blog posts, while readers can explore and filter blogs by categories such as education, business, and art. With real-time updates, blog posts display relevant timestamps, including creation and last update times. The website also incorporates a responsive design for accessibility across devices, rich text editing for blog creation, and security features such as password hashing and JWT-based authentication.

**Source Code:** <https://github.com/deveshm019/blog-website.git>