MERN Stack News Website

Project Overview

Objective

The objective of this project was to develop a responsive and interactive news website using the MERN (MongoDB, Express, React, Node.js) stack. The website allows users to register, log in, view news articles from various sources, upload files, and manage their sessions effectively.

Scope

The website provides the following functionalities:

* User authentication with signup and login features.
* Display of the latest news articles fetched from a news API.
* File upload functionality using cloud storage integration.
* Interactive user interface with a modern design.

Features

User Authentication

* Signup and Login: Users can create accounts and log in securely.
* Session Management: Sessions are managed using JWTs to ensure secure access to protected routes.

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Landing Page

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Sign Up Page

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LoginPage

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News Display

* News API Integration: News articles are fetched from a thirdparty news API and displayed on the website.
* Responsive Design: Articles are presented in a cardbased layout with images and descriptions, enhancing readability.

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File Upload

* Cloud Storage: Users can upload files, which are stored in a cloud storage solution (Cloudinary).
* User Interface: A simple and intuitive interface is provided for uploading files.

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File Upload Page

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Interactive Dashboard

* Dashboard Tiles: Users are presented with an interactive dashboard offering quick access to view news, upload files, or log out.
* Responsive Layout: The dashboard adjusts to various screen sizes for optimal user experience.

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Technical Implementation

Frontend

* React: The user interface is built using React, providing a dynamic and responsive experience.
* React Router: Navigation is managed using React Router, allowing seamless transitions between pages.
* React Icons: Icons are used to enhance the visual appeal of dashboard tiles.

Backend

* Node.js and Express: The backend is developed using Node.js and Express, handling API requests and user authentication.
* MongoDB: User data and session information are stored in MongoDB, providing a scalable and flexible database solution.
* Mongoose: Mongoose is used for object modeling, ensuring data consistency and validation.

Styling

Custom CSS is used to create a cohesive and modern design across the application.

Responsive Design: Media queries and flexible layouts ensure the website is accessible on various devices.

Deployment

GitHub: Version control is managed using GitHub, enabling collaboration and tracking of changes.

Conclusion

The MERN stack news website successfully achieves its goal of providing a modern and interactive platform for viewing news articles and managing user sessions. By leveraging the MERN stack, the application delivers a seamless user experience with robust backend support. Future improvements will focus on enhancing user engagement and performance optimization.