



COLLEGE CODE: 9623

COLLEGE NAME: AMRITA COLLEGE OF ENGINEERING AND TECHNOLOGY

DEPARTMENT: COMPUTER SCIENCE AND ENGINEERING

STUDENT NM-ID: 3D79BCC0253A11381F341B7934308AF4

ROLL NO: 962323104069

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Completed the project named as Phase-5 TECHNOLOGY

PROJECTNAME: IBM-FE-News Feed Application

SUBMITTED BY,

NAME: NITHIN T R

MOBILE NO: 6369516708

1.Project Overview

The News Feed Application is a responsive web-based platform designed to display the latest news and trending topics across multiple categories such as Technology, Sports, Business, Health, and Environment. It allows users to easily browse, filter, and read news articles in a visually appealing and organized format.

The project aims to provide users with an engaging experience similar to modern digital news portals by integrating features like category-based filtering, search functionality, dark mode toggle, and smooth animations for better interactivity.

This application is built using React.js and Vite for fast development and optimized performance. It uses Framer Motion for animations and Lucide React for lightweight, scalable icons. The news content is currently static (demo data), but the structure allows for future integration with live APIs such as NewsAPI or Google News API to fetch real-time updates.

Key Features

- Real-time News Updates: Fetches live articles from a public API.
- Filtering: View news by topics such as Sports, Technology, Business, etc.
- Search Functionality: Allows users to search for specific news topics or keywords.
- Responsive Design: Works seamlessly on desktops, tablets, and mobile devices.

Technical Highlights

- Frontend Framework: React (with Vite for setup)
- Styling: CSS3 (Responsive Design)
- Language: JavaScript (ES6+)

2.Project Report

The News Feed Application is a responsive and modern web-based platform designed to display categorized news content in an interactive format. Built using React.js and Vite, the application provides users with a seamless browsing experience through organized sections such as Technology, Sports, Business, Health, and Entertainment.

Project Setup:

The development process began by creating a ReactJS application using Vite, a modern build tool known for its fast development environment.

Steps Followed:

- Initialized a new React project using: `npm create vite@latest news-feed-app --template react`
- Installed required dependencies: `npm install react-router-dom framer-motion lucide-react`

- Configured the project structure with dedicated folders for components, data, and assets.
- Created static demo data to simulate real-time news updates.

Component Creation

The project follows a modular component-based structure for scalability and clarity. Each part of the interface is designed as a reusable component.

Component Details

- `Navbar.jsx` – Displays the top navigation bar with category filters and dark mode toggle.
- `NewsList.jsx` – Displays a grid of news cards fetched from local data.
- `NewsCard.jsx` – Represents individual news items including image, title, and description.
- `Footer.jsx` – Displays site information and copyright text.
- `SearchBar.jsx` – Allows users to search for specific articles by keyword.

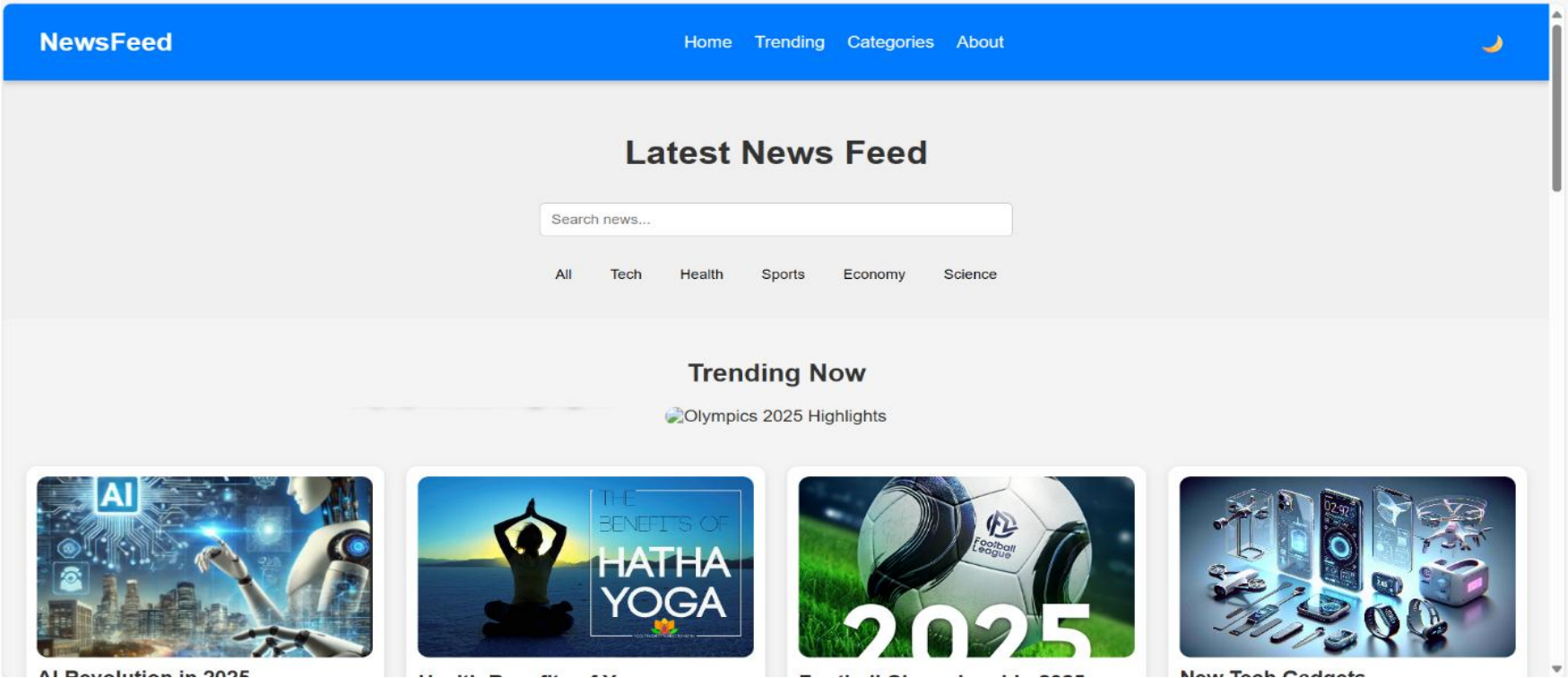
Features Implemented

- Static demo news feed displaying local data.
- Category filters to switch between different types of news.
- Search functionality to find specific articles.
- Dark/Light mode toggle for user preference.
- Responsive layout compatible with all screen sizes.
- Smooth animations using Framer Motion.
- Back navigation prompt to return to the main news list easily.

Testing and Validation

- Verified that all category buttons correctly filter content.
- Tested responsive design on multiple screen sizes.
- Checked smooth navigation and animations in both light and dark modes.
- Validated dark mode preference persistence using local state.
- Simulated API calls with static JSON data for testing structure.

3.Screenshots

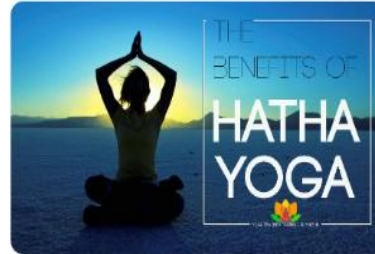




AI Revolution in 2025

AI is transforming industries rapidly in 2025. From autonomous vehicles to personalized medicine, artificial intelligence is reshaping our world. Experts predict that by 2030, AI will contribute over \$15 trillion to the global economy. However, ethical concerns about job displacement and privacy are also on the rise.

Category: Tech

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Health Benefits of Yoga

Yoga improves both mental and physical health. Regular practice can reduce stress, improve flexibility, and boost overall well-being. Studies show that yoga can lower blood pressure and enhance cognitive function. Many practitioners report better sleep quality and increased mindfulness.

Category: Health

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Football Championship 2025

The final match of the football championship was thrilling. Team A defeated Team B in a penalty shootout after a 2-2 draw. The game featured incredible saves and last-minute goals. Fans worldwide celebrated the victory, with social media buzzing about the underdog story.

Category: Sports

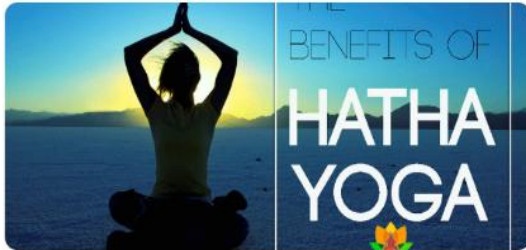
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New Tech Gadgets

Latest tech gadgets are being released this year. Innovations include foldable smartphones, smart home devices, and wearable tech. The new VR headset offers immersive experiences, while AI assistants are becoming more intuitive. Consumers are excited about the potential for enhanced productivity and entertainment.

Category: Tech

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Category: Health

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Mental Health Awareness

Mental health awareness campaigns are rising worldwide. Organizations are working to reduce stigma and provide support. New apps and online resources are making therapy more accessible. Experts emphasize the importance of early intervention and community support in addressing mental health challenges.

Category: Health

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Advances in Medical Research

Breakthroughs in medical research offer hope. Gene editing techniques are advancing. Vaccines for new diseases are in development. AI is aiding diagnostics. Personalized medicine is becoming more accessible, improving patient outcomes.

Category: Health

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4.Challenges & Solutions

Challenge	Solutions
API Integration Issues	Used the correct API endpoints and configured Axios properly to handle requests. Implemented error handling to manage failed API calls.
Slow Loading of News Articles	Added a Loader Component (spinner) to display while data was being fetched, enhancing user experience.
Dynamic Routing Issues	Implemented React Router DOM with BrowserRouter, Routes, and Route components for seamless, single-page navigation.
Search Functionality	Used React's useState() and conditional rendering to efficiently update and display filtered results in real-time.

5.GitHub Link

<https://github.com/NithinThompson/News-Feed-Application.git>

All the project phases (phase 1 to phase 5) have been uploaded to the GitHub repository mentioned above.