

Insight Stream : Navigate the News Landscape.

1. Introduction

Project Title: Insight Stream Navigate the News Landscape

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2. Project Overview

Purpose :Insight Stream is a modern news aggregation platform that delivers curated, real-time news updates to users. The goal is to provide a seamless and interactive experience for navigating news articles from various categories and sources.

Features:

Dynamic news feed with categorized articles (e.g., Home,Politics, Technology, Sports,healthcare)

Search functionality for finding specific news articles

Bookmarking and saving favorite articles

Responsive UI for mobile and desktop

Dark/Light mode switching

3. Architecture

Component Structure

Header: Navigation bar with search functionality

NewsFeed: Displays a list of news articles

Article: Detailed view of an article

Bookmarks: Section for saved articles

ThemeToggle: Switch between light and dark mode

State Management:

Context API for global state management (e.g., user preferences, bookmarks)

React Query for API data fetching and caching

Routing:

React Router is used to navigate between pages:

/ → Home (Latest news)

/category/:category → News by category

/article/:id → Detailed article view

/bookmarks → Saved articles

4. Setup Instructions

Prerequisites:

Node.js (v16 or later)

npm or yarn

React.js

Installation:

1. Clone the repository:

git clone <https://github.com/A5C414AA5699F438C7C4CB591C50C0C8/News-app-prjct>.

2. Install dependencies:

npm install

3. Start the development server:

npm start

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5. Folder Structure

```
navigate-news/
├── public/      # Static assets
├── src/
│   ├── components/  # Reusable components
│   ├── pages/       # Page components (Home, Article, Bookmarks)
│   ├── context/     # Context API files
│   ├── hooks/       # Custom React hooks
│   ├── styles/      # Global styles and themes
│   ├── utils/       # Utility functions
│   ├── App.js       # Main App component
│   └── index.js      # Entry point
└── package.json    # Project metadata
```

6. Running the Application

Start the frontend server locally:

npm start

7. Component Documentation

Key Components:

NewsCard: Displays individual news articles

NewsList: Renders a list of news articles

SearchBar: Allows users to search for articles

ThemeToggle: Enables light/dark mode

Reusable Components:

Button: Custom button component

Loader: Loading spinner

Modal: Displays article details in a popup

8. State Management

Global State:

Managed using Context API (e.g., Theme context, Bookmark context)

Local State:

Controlled within components using useState and useReducer

9. User Interface

Interactive UI with Material UI components

Screenshots of key features (Home page, Article view, Bookmarks)

10. Styling

CSS Frameworks/Libraries:

Tailwind CSS for responsive design

Styled-components for dynamic theming

Theming:

Supports Dark Mode & Light Mode

11. Testing

Testing Strategy:

Unit tests using Jest & React Testing Library

Integration tests for API calls using Mock Service Worker (MSW)

Code Coverage:

Ensured through Jest coverage reports

12. Screenshots or Demo

Screenshots: Showcase UI features (news list, dark mode, search, bookmarks)

Demo Link: [https://drive.google.com/drive/folders/1oDE2UtQ2JtQRD5o_GP9Uyo5yfGA71aQg]
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13. Known Issues

API rate limits may affect news fetching

Some articles may have incomplete metadata

14. Future Enhancements

User authentication for personalized news feeds

Push notifications for breaking news

Multi-language support