

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

3Architecture

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:

<https://github.com/S7010165058/News-app-project->

2. Install dependencies:

npm install

3. Start the development server:

npm start

4. Setup Instructions

Prerequisites:

Node.js (v16 or later)

npm or yarn

React.js

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/file/d/11Y51t-JY_rA76H6c7GuwFoSQu9CN90W1/view?usp=drivesdk

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

