**Project Documentation**

**Insight Stream – Navigate The News Landscape**

1. **Introduction:**

**. Project Title: Insight stream-navigation the news landscape**

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**2. Project Overview**

* **Purpose:**  
  The project aims to provide users with a seamless way to discover, filter, and consume news from multiple sources. It helps readers navigate the overwhelming news landscape by offering personalized recommendations, categorization, and easy-to-read formats.
* **Features:**
  + Aggregates news from multiple sources (APIs, RSS feeds).
  + Smart categorization (Politics, Technology, Sports, Entertainment, etc.).
  + Personalized news feed based on user preferences.
  + Bookmark and save articles for later.
  + Search and filter by keywords.
  + Responsive and accessible UI.

**3. Architecture**

* **Component Structure:**
  + Header (Navigation bar, Search bar).
  + News Feed (List of articles with headlines, images, and summaries).
  + Category Sidebar (Filter news by category).
  + Article Details Page (Full article view with related news suggestions).
  + User Profile (Settings, saved articles, preferences).
* **State Management:**
  + Global State with **Redux** (or Context API) for user preferences, bookmarks, and categories.
  + Local State for component-specific interactions (dropdowns, modals).
* **Routing:**
  + /home – News feed
  + /category/:name – Category-specific news
  + /article/:id – Detailed article page
  + /profile – User profile and bookmarks

### 4. Setup Instructions

* **Prerequisites:**
  + Node.js
  + npm
  + React
* **Installation:**
* git clone [ repository-url ]
* cd insight-stream

npm install

**5. Folder Structure**

* **Client:**
  + /src /components → Header, Sidebar, News Card, Article View
  + /src/pages → Home, Category, Profile
  + /src/redux → Actions, Reducers, Store
  + /src/assets → Icons, images
  + /src/utils → API calls, helper functions
* **Utilities:**
* API service functions for fetching news.
* Reusable hooks for managing preferences.

### 6. Running the Application

npm start

Frontend will run at http://localhost:3000/.

### 7. Component Documentation

* **Key Components:**
  + News Card – Displays headline, image, and summary.
  + Category Sidebar – Lets users filter by category.
  + Article View – Displays full article content.
* **Reusable Components:**
  + Button, Card, Modal, Loader.

**8. State Management**

* **Global State:**
  + User preferences (categories, saved articles).
  + News feed cache (to avoid refitting).
* **Local State:**
  + Search bar input.
  + UI toggles (dark mode, dropdowns).

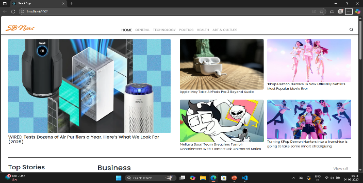
**9. User Interface**

* Clean, modern, and responsive design.
* Example features:
  + Search bar with live filtering.
  + Category chips/tabs for easy navigation.
  + Dark/Light mode toggle.

**10. Styling**

* **CSS Frameworks/Libraries:** Tailwind CSS, Styled-Components.
* **Theming:** Dark/Light theme with user preference persistence.

**11. Screenshots or Demo**

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**12. Known Issues**

* API rate limits may cause delays.

**13. Future Enhancements**

* AI-powered article summarization.
* Voice-assisted news reading and Push notifications for breaking news

14.Conclusion

* Insight Stream provides a clean and responsive way to explore news in real time.
* With category filters, search, bookmarks, and theme toggle, it reduces clutter and improves accessibility.
* This project lays the foundation for future enhancements like personalization and AI-powered summarization.