

## **Insight Stream – Navigate the news landscape**

### **1.Introduction**

Category:Frontend development with DBA by MongoDB

Project Title: Insight Stream – Navigate the news lanscape

### **Team Members**

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### **2. Project Overview**

#### **Purpose:**

The goal of Insight Stream is to provide users with real-time, categorized, and reliable news articles in a clean and interactive interface.

#### **Features:**

Live news updates fetched via API

Category-wise filtering (Politics, Technology, Sports, Entertainment, etc.).

Search functionality for specific news topics.

Responsive design for mobile and desktop users.

Bookmarking favorite articles.

### **3.Architecture**

#### **Component Structure:**

App.js → Root component.

Navbar.js → Navigation bar with categories.

NewsList.js → Displays news articles.

NewsCard.js → Individual news article card.

SearchBar.js → For searching news topics.

Bookmark.js → Saved articles section.

### **State Management:**

Implemented using Context API for global state.

Handles news data, bookmarks, and category filtering.

### **Routing:**

Implemented with React Router DOM.

Routes: /, /category/:name, /search, /bookmarks.

## **4. Setup Instruction:**

### **Prerequisites:**

Node.js (v16+ recommended)

npm or yarn

### **Installation:**

git clone <https://github.com/username/insight-stream.git>

cd insight-stream

npm install

npm start

## **5. Folder Structure**

/insight-stream

├ /public

├ /src

| └ /components

| | └ Navbar.js

| | └ NewsCard.js

| | └ SearchBar.js

| | └ Bookmark.js

| └ /pages

| | └ Home.js

- | | ↳ Category.js
- | | ↳ SearchResults.js
- | | ↳ Bookmarks.js
- | ↳ /context
- | | ↳ NewsContext.js
- | ↳ App.js
- | ↳ index.js
- ↳ package.json

## 6. Running the Application

### Frontend:

npm start

Runs the app in development mode at <http://localhost:3000/>.

## 7. Component Documentation

### Key Components:

Navbar → Navigation across categories.

NewsList → Renders fetched articles.

NewsCard → Displays article title, description, image, and source.

### Reusable Components:

Button, Loader, Modal.

## 8.State Management

### Global State:

News API data, selected category, search results.

### Local State:

Pagination handling, modal visibility, input fields.

## 9. User Interface

Responsive Material UI + Tailwind CSS design.

Mobile-friendly layout.

Screenshots/GIFs showing:

Home Page with latest news.

Category selection.

Bookmarked articles view.

## **10. Styling**

### **CSS Frameworks/Libraries:**

Tailwind CSS

Material UI Components

### **Theming:**

Light/Dark mode toggle.

## **11. Testing**

### **Testing Strategy:**

Unit tests for components with Jest.

UI testing with React Testing Library.

### **Code Coverage:**

Ensuring >80% coverage.

## **12. Screenshots or Demo**

Screenshots of homepage, categories, and bookmarks.

### **Demo link:**

<https://github.com/Karthickaramalingam/insightstream-navigate-the-news-landscape>

## **13. Known Issues**

Sometimes API rate limits may cause delays.

Search performance can be optimized for large datasets.

## **14. Future Enhancements**

Add AI-powered news summarization.

Implement push notifications for breaking news

Support for multiple languages.

Progressive Web App (PWA) support.

