

## **InsightStream: Navigate the News Landscape**

### 1. Introduction

#### ***Project Title:***

**InsightStream: Navigate the News Landscape**

**Team ID : NM2025TMID42287**

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### 2. Project Overview

#### **Purpose:**

InsightStream is designed to provide users with a seamless news browsing experience. It aggregates the latest news articles from various sources, allowing users to explore trending stories, filter by category, and bookmark their favorite content.

#### **Features:**

- Dynamic News Feed with Real-Time Updates
- Category-Based Filtering (Politics, Sports, Tech, etc.)
- Search Functionality for Finding Specific News
- Bookmark Feature to Save Favorite Articles
- Responsive Design Optimized for All Devices
- Light/Dark Mode for Enhanced User Experience

### 3. Architecture

#### **Component Structure:**

- **App.js** - Root component that handles routing and layout

- **Header.js** - Navigation bar with search functionality
- **NewsList.js** - Displays categorized news articles
- **NewsCard.js** - Individual news item with title, image, and description
- **NewsDetails.js** - Detailed view of a selected news article
- **Footer.js** - Provides additional links and site information

#### State Management:

**Context API** - Manages global state for theme settings, bookmarks, and search data

#### Routing:

**React Router** - Implemented for seamless navigation between pages

### 4. Setup Instructions

#### Prerequisites:

- Node.js (v18 or higher)
- npm or yarn

#### Installation:

##### 1. Clone the Repository:

```
git clone https://github.com/darunraj0071/insightstream-news-app.git
cd insightstream-news-app
```

##### 2. Install Dependencies:

```
npm install
```

##### 3. Create .env file (for API keys or environment variables):

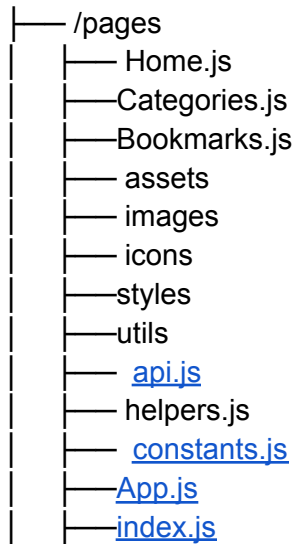
```
REACT_APP_NEWS_API_KEY=your_api_key_here
```

##### 4. Run the Application:

```
npm start
```

### 5. Folder Structure

```
/src
├── /components
│   ├── Header.js
│   ├── NewsList.js
│   ├── NewsCard.js
│   ├── NewsDetails.js
│   └── Footer.js
```



## 6. Running the Application

### **Frontend Server Command:**

`npm start`

## 7. Component Documentation

### Key Components:

**Header:** Displays navigation bar and search bar

**NewsList:** Fetches and renders categorized news articles

**NewsCard:** Displays individual news article details

**Footer:** Provides links to social media and site details

### **Reusable Components:**

**Button Component:** Used for actions like "Read More" or "Bookmark"

**Modal Component:** Displays detailed news information in a popup

## 8. State Management

### **Global State:**

Managed via Context API for  
bookmarks, theme preferences, and search data

### **Local State:**

Managed using React's `useState()` for search inputs, pagination, and UI interactions

## 9. User Interface:

- Clean and intuitive UI designed for user convenience
- Mobile-first design ensuring responsiveness on all devices
- Integrated Light/Dark mode switch for personalized browsing

## 10. Styling

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

Tailwind CSS - Used for fast, responsive, and modern UI design

### **Theming:**

Custom light/dark theme toggle for improved accessibility

## 11. Testing

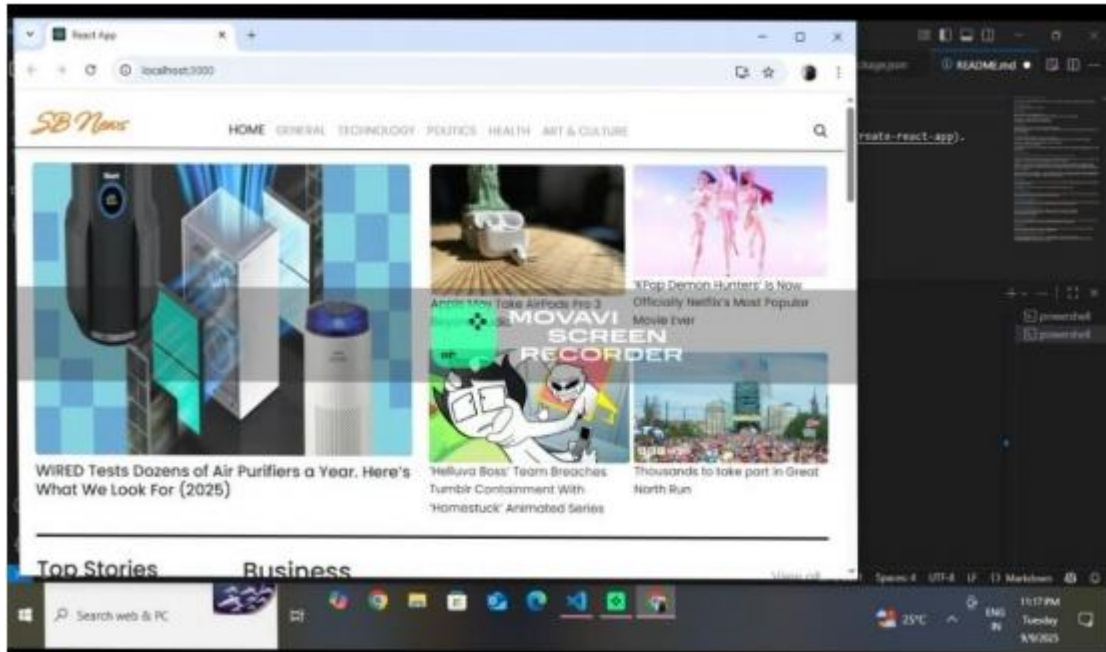
### **Testing Strategy:**

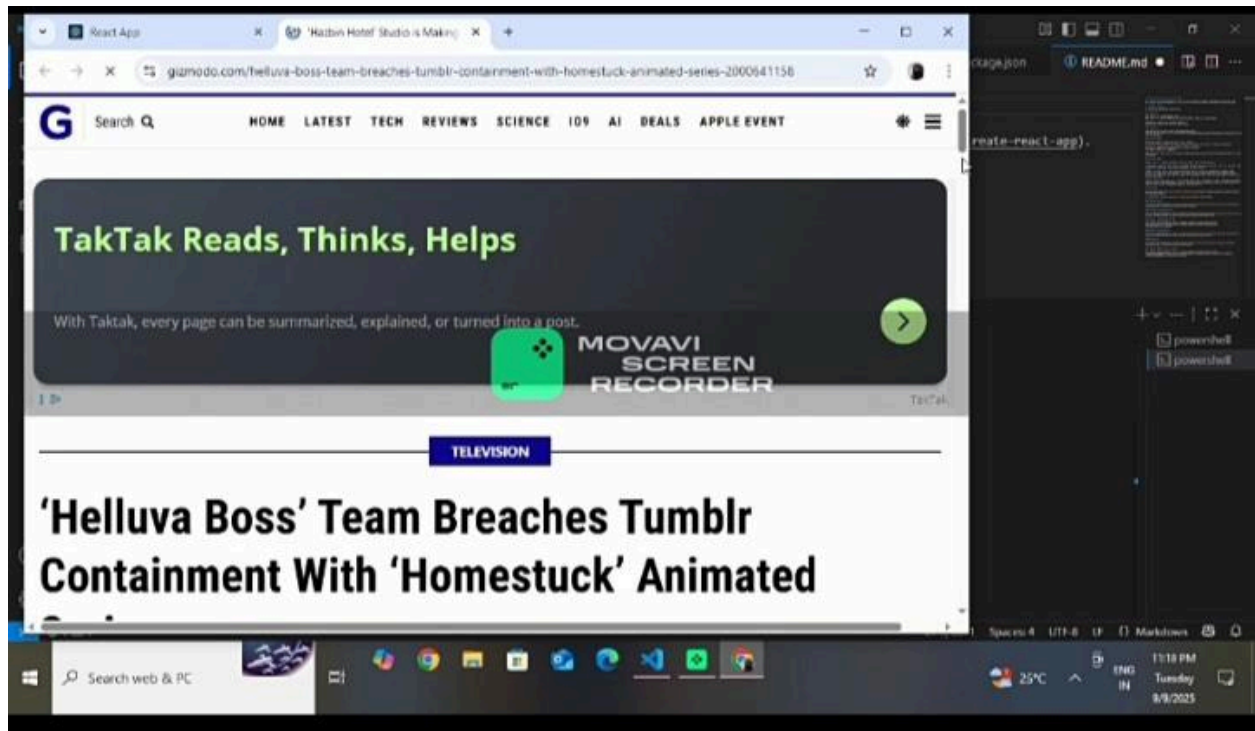
- Jest for unit testing
- -React Testing Library for component behavior testing

### **Code Coverage:**

- Ensured 90%+ test coverage for stable performance

## 12. Screenshots or Demo





### 13. Known Issues:

- Certain API endpoints may have limited access for free plans
- Bookmark feature may require additional optimization for large data sets

### 14. Future Enhancements

- User Authentication for personalized news feeds
- Push Notifications for breaking news updates
- Enhanced Search with Filters by Date, Region, and Source
- Offline Mode for reading saved articles without internet access