InsightStream: Navigate the News Landscape

Project Report

Team Members:

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Introduction

In the era of digital media, accessing news from various domains has become an integral part of everyday life. **InsightStream** is an interactive web-based news application designed to provide users with real-time news updates from multiple categories. Built using **React.js**, the application integrates external APIs to fetch live news content and offers seamless navigation for exploring the latest news.

Objective

The primary objective of InsightStream is to:

- Provide users with the latest news articles from multiple domains.

- Implement category-based filtering for streamlined browsing.

- Enable users to subscribe to newsletters for daily updates.

- Develop an interactive and responsive web application using modern technologies.

Technology Stack

- **Frontend Framework:** React.js

- **API Integration:** Axios

- **Routing:** React Router DOM

- **Styling:** CSS

- **Package Manager:** Node Package Manager (NPM)

Features Implemented

1. **Navbar Navigation:** Provides links to navigate between the Home, Categories, and Newsletter pages.

2. **Trending News Display:** Shows popular news articles fetched through API integration.

3. **Category Filtering:** Allows users to filter news articles by predefined categories.

4. **Search Functionality:** Enables users to search for articles based on custom keywords.

5. **Newsletter Subscription:** Collects user email addresses for future updates.

6. **Responsive Design:** Ensures optimal viewing on both desktop and mobile devices.

Project Setup

To set up and run the project locally, follow these steps:

1. Install Node.js from the official website.

2. Download the project folder.

3. Open the folder in **Visual Studio Code (VS Code)**.

4. Install project dependencies using the command:

5. npm install

6. Start the development server:

7. npm start

8. Access the application at **http://localhost:3000**.
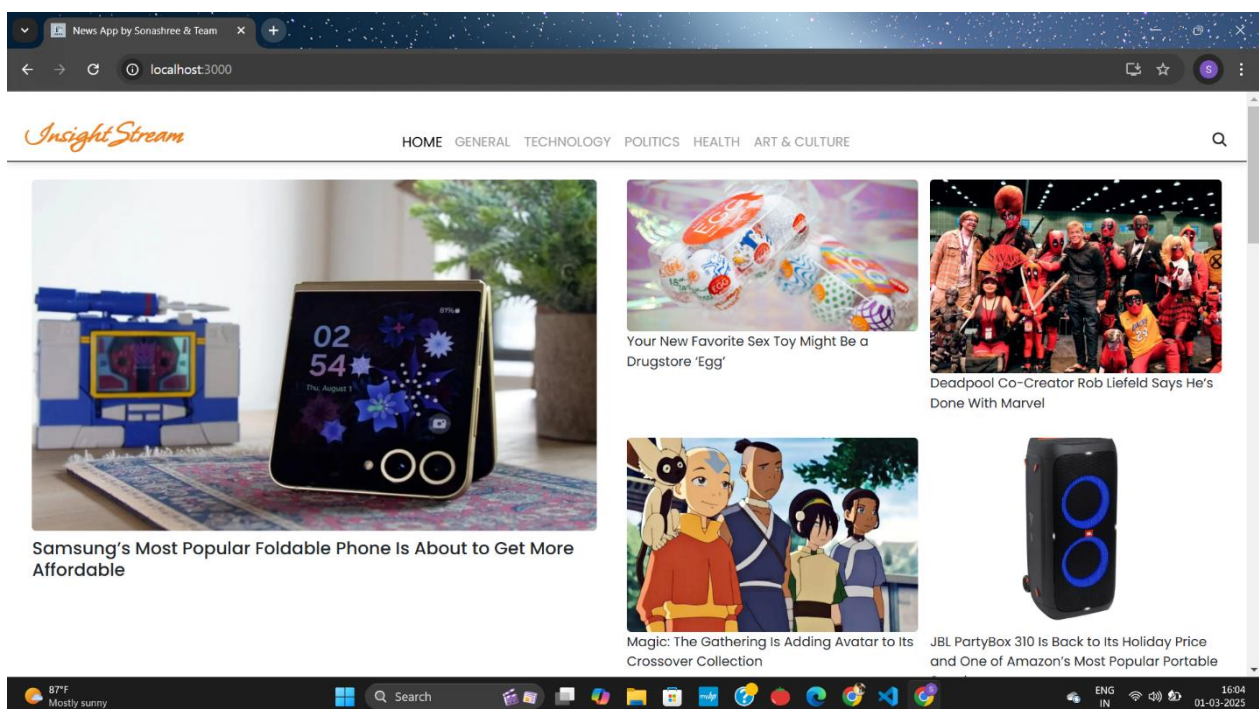
API Integration

News data is fetched from external APIs using Axios. The API request dynamically retrieves news articles based on specified categories and keywords.
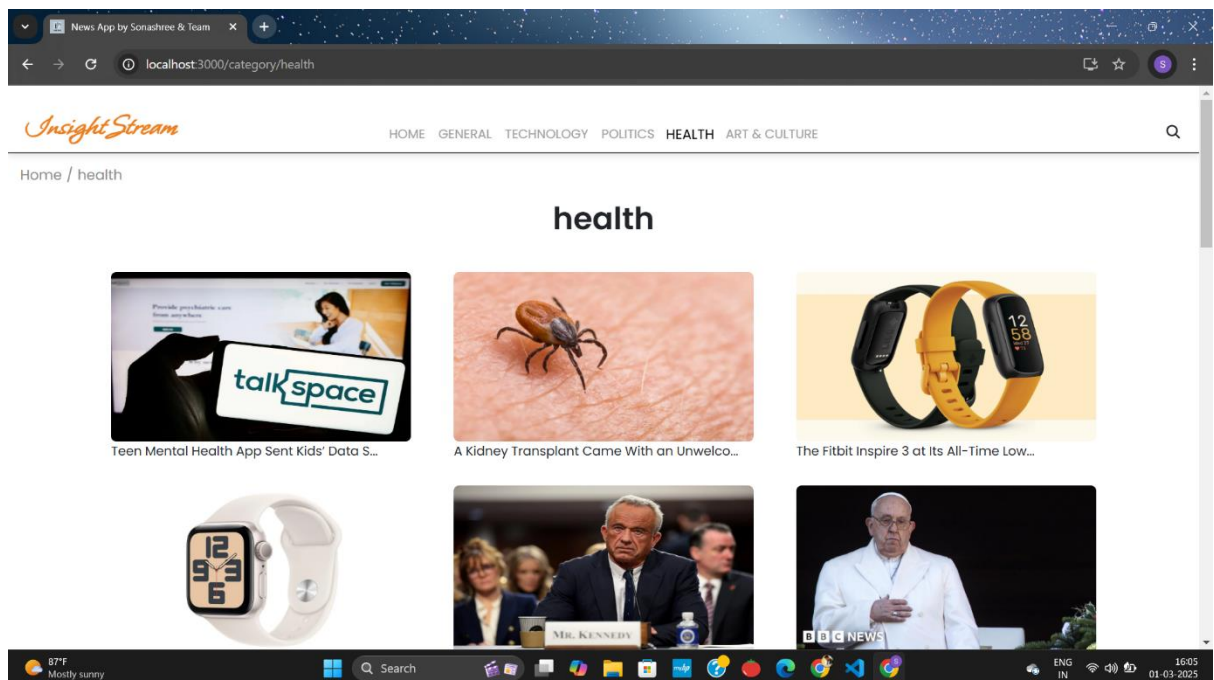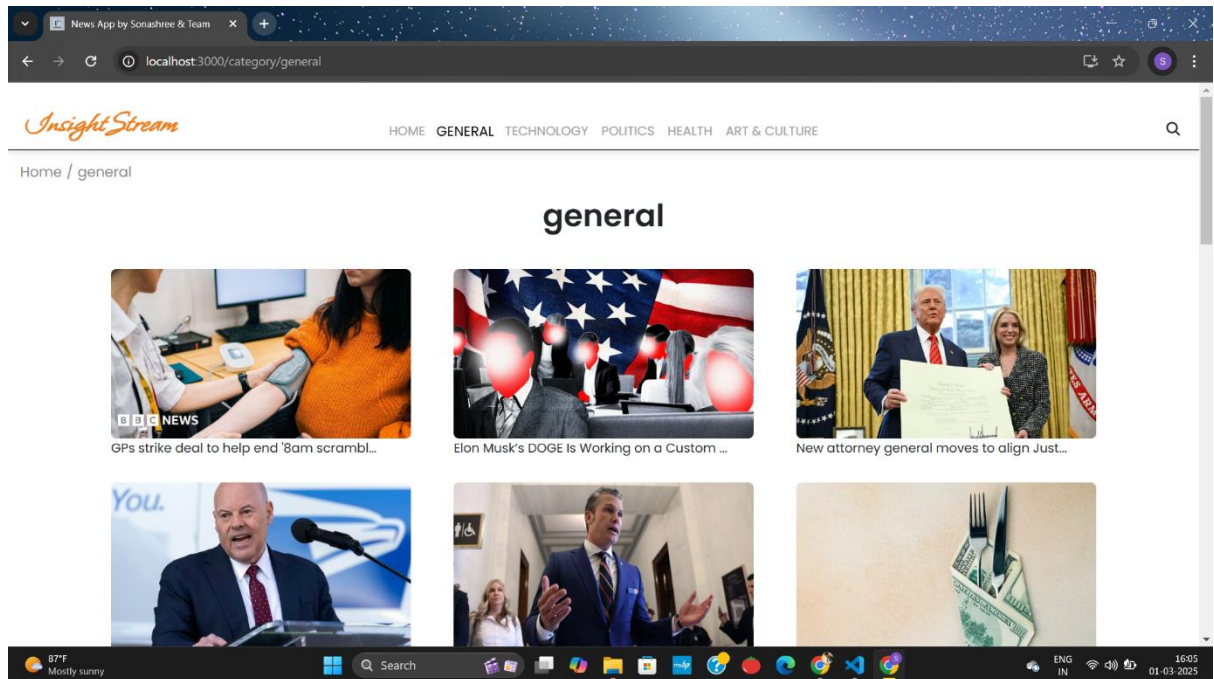
Example API Endpoint:

https://newsapi.org/v2/everything?q=popular&apiKey= c82f21cd0dee42d1a71df44d7c513dc0
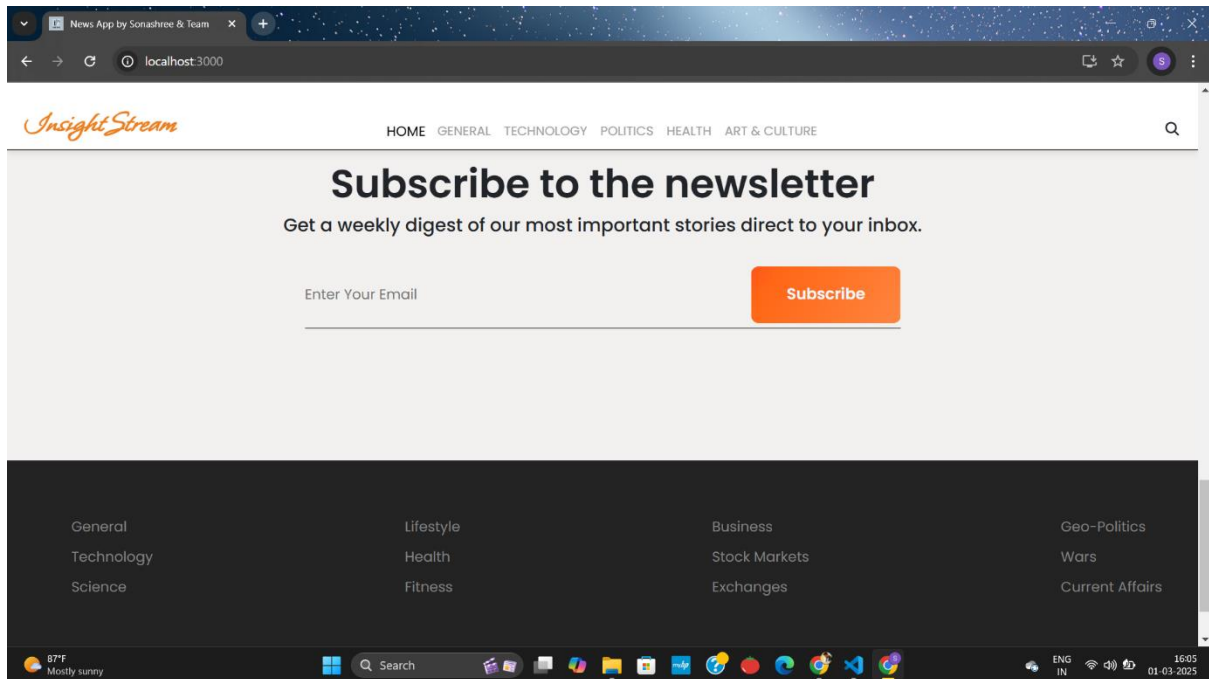
Screenshots

- Home Page with Trending News

- # Category Page Filtering News Articles

- Newsletter Subscription Page

Challenges Faced

- API request failures due to authentication issues.
- Handling asynchronous API calls with React hooks.
- Ensuring consistent styling across different screen sizes.
- Managing component-based architecture.

Conclusion

InsightStream successfully demonstrates the integration of modern web technologies in building an interactive news application. The project highlights the importance

of API-based data fetching, user-friendly interfaces, and responsive design. Through this project, the team gained valuable insights into React.js, API integration, and component-based development.

Future Scope

- User Authentication for personalized news feeds.
- Dark Mode Implementation.
- Multi-Language Support.
- Commenting System for user discussions.
- Advanced news filtering based on user preferences.

Acknowledgement

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