

## **Project Documentation**

### **IN SIGHT STREAM:NAVIGATE THE NEWS LANDSCAPE**

#### **INTRODUCTION**

- project title:IN SIGHT STREAM:NAVIGATE THE NEWS LANDSCAPE.
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## **PROJECT OVERVIEW**

- **PURPOSE:**

**The purpose of Insights Stream – Navigate the News Landscape is to create a smart and reliable platform that helps users explore, analyze, and understand current news in an organized manner. With the rapid growth of digital media, information is scattered across countless sources, making it difficult to identify trustworthy news and gain meaningful insights. This project aims to simplify that challenge by collecting news from multiple outlets, filtering it through intelligent algorithms, and presenting it in a structured, user-friendly format.**

**Beyond just delivering headlines, the platform encourages critical thinking by highlighting trends, analyzing key issues, and offering multiple perspectives on the same topic. Its purpose is to help users stay informed, avoid misinformation, and make better decisions based on accurate and timely knowledge. By navigating the news landscape effectively, Insights Stream empowers individuals to engage more deeply with the world around them.**

- **FEATURES:**
- News Aggregation – Collects news articles from multiple reliable sources in real time.
- Categorization & Filtering – Organizes news into categories like politics, technology, sports, entertainment, etc.
- Search & Navigation – Allows users to easily search and explore news based on topics, keywords, or regions.
- Personalized Recommendations – Suggests news articles based on user preferences and

- reading history.
- Multiple Perspectives – Displays different viewpoints on the same issue to avoid bias and encourage critical thinking.
- Trend Analysis – Highlights trending topics, most-discussed issues, and emerging stories.
- Summarization – Provides short, AI-powered summaries of long articles for quick understanding.
- Fact-Checking Integration – Helps verify authenticity of news to reduce misinformation.
- Interactive Dashboard – Visual representation of news flow with charts, timelines, and topic clusters.
- User Engagement Tools – Options like bookmarking, sharing, and commenting to increase participation.

- **Architecture**

**Frontend:** React.js with Bootstrap and Material UI

**Backend:** Node.js and Express.js managing server logic and API endpoints

**Database:** MongoDB stores user data, news articles, search history, and comments

- **Setup Instructions**

***Prerequisites:***

***Node.js:***

Node.js is a powerful JavaScript runtime environment that allows you to run JavaScript code on the local environment. It provides a scalable and efficient platform for building network applications.

Install Node.js and npm on your development machine, as they are required to run JavaScript on the server-side.

- Download: <https://nodejs.org/en/download/>
- Installation instructions: <https://nodejs.org/en/download/package-manager/>

***MongoDB:***

MongoDB is a NoSQL database that uses a document-oriented model, storing data in flexible, JSON-like documents called BSON. It is designed for scalability and performance, making it ideal for applications like SB Works, where it stores user data, project details, applications, and chat messages.

For installation, download MongoDB Community Server from:

- <https://www.mongodb.com/try/download/community>  
and follow the setup guide at  
<https://www.mongodb.com/docs/manual/installation/>.

### ***React.js:***

React.js is a popular JavaScript library for building user interfaces. It enables developers to create interactive and reusable UI components, making it easier to build dynamic and responsive web applications.

Install React.js, a JavaScript library for building user interfaces.

- Create a new React app: `npm create vite@latest` Enter and then type project-name and select preferred frameworks and then enter
- Navigate to the project directory: `cd project-name npm install`
- Running the React App: With the React app created, you can now start the development server and see your React application in action.
- Start the development server: `npm run dev` This command launches the development server, and you can access your React app at <http://localhost:5173>

### ***Express.js:***

Express.js is a minimal and flexible Node.js web application framework that simplifies the creation of server-side applications. It provides a robust set of features for building APIs and handling HTTP requests, making it ideal for the SB Works backend as noted in the project documentation. With middleware support, it enhances functionality like routing, authentication, and error handling. Its lightweight design allows seamless integration with MongoDB and React.js. To download and install, visit and follow the installation guide <https://expressjs.com/>

### ***Visual Studio Code:***

Visual Studio Code (VS Code) is a highly customizable, lightweight source-code editor developed by Microsoft, supporting a wide range of programming languages. It offers features like debugging, Git integration, and extensive extensions, making it ideal for developing projects like SB Works, as noted in the documentation. The editor provides a robust environment with IntelliSense, built-in terminal, and support for Node.js, React.js, and MongoDB. Its cross-platform availability enhances productivity for developers. To download and install, visit <https://code.visualstudio.com/>

- **Installation Steps:**

Clone the repository

git clone <https://github.com/your-repo/insightstream.git>

Install client dependencies

cd client npm install

Install server dependencies

cd ../server npm install

- **Folder Structure:**

InsightStream/

|-- client/

    # React frontend

    |-- components/

    |-- pages/

|-- server/

    # Node.js backend

    |-- routes/

    |-- models/

    |-- controllers/

- **Running the Application:**

**Frontend:**

cd client

npm start

Backend:

cd server

npm start

Access: Visit <http://localhost:3000>

- **API Documentation:**

**User:**

/api/user/register

/api/user/login

Projects: (Adapted to News)

/api/news/create (for admin-curated news)

/api/news/:id

Applications: (Adapted to Searches/Bookmarks)

/api/search

Chats: (Adapted to Comments)



/api/comment/send

/api/comment/:articleId

- **Authentication:**

JWT-based authentication for secure login

Middleware protects private routes

- **User Interface:**

Landing Page

User Dashboard (personalized news feed)

Admin Panel

News Details Page

- **Testing:**

Manual testing during milestones

Tools: Postman, Chrome Dev Tools

- **Screenshots or Demo:**



- **Placeholder:** Include screenshots of Landing Page, Search Interface, News Article View, and Admin Panel.
- **Demo link:**

<https://drive.google.com/file/d/1-D8TfCe4kxYkqpXW6iF4iX8Ao4z3CDk1/view?usp=drivesdk>

- **Known Issues**

Occasional delays in news API fetching during high traffic (mitigated with caching).

Mobile responsiveness minor tweaks needed for very small screens.

Search autocomplete not fully optimized for large datasets.

- **Future Enhancements**

Integration with more news APIs (e.g., NewsAPI, Google News) for broader coverage.

AI-powered news summarization and personalization recommendations.

Push notifications for breaking news alerts.

Multi-language support for global users.