

Project Documentation

Insightstream: Navigate The News Landscape

1. Introduction

Project Title: InsightStream: Navigate The News Landscape

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2. Project Overview

Purpose:

InsightStream helps users navigate today's complex news ecosystem by providing curated feeds, personalized recommendations, and fact-checking insights. It ensures that readers stay informed, avoid misinformation, and explore diverse perspectives across multiple sources.

Features:

- Personalized news feed with topic filters
- Real-time trending stories and sentiment analysis
- Fact-checking and credibility indicators
- Multi-source comparison view
- Admin dashboard for content moderation

3. Architecture

Frontend: React.js with TailwindCSS and Material UI

Backend: Node.js with Express.js handling APIs and news aggregation logic

Database: MongoDB for storing user profiles, preferences, and saved articles

External APIs: News API, sentiment analysis API, and fact-checking APIs

4. Setup Instructions

Prerequisites:

- Node.js
- MongoDB
- Git
- React.js
- Express.js
- Visual Studio Code

Installation Steps:

```
# Clone the repository
git clone <repo-link>

# Install client dependencies
cd client
npm install

# Install server dependencies
cd ../server
npm install
```

5. Folder Structure

```
InsightStream/
|-- client/           # React frontend
```

```
|   |-- components/
|   |-- pages/
|
|-- server/          # Node.js backend
    |-- routes/
    |-- models/
    |-- controllers/
    |-- utils/
```

6. Running the Application

Frontend:

```
cd client
npm start
```

Backend:

```
cd server
npm start
```

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

7. API Documentation

User Authentication:

- POST /api/user/register
- POST /api/user/login

News:

- GET /api/news/trending
- GET /api/news/topics/:category
- GET /api/news/search?q=keyword

User Preferences:

- POST /api/preferences/set
- GET /api/preferences/get

8. Authentication

- JWT-based authentication for secure access
- Middleware for protecting personalized news feeds and saved items

9. User Interface

- **Landing Page** with trending headlines
- **Personalized Dashboard** showing curated topics
- **Fact-Check Section** with credibility scoring
- **Multi-source Comparison View** for a single news story
- **Admin Panel** for content moderation

10. Testing

- Manual testing at milestones
- Tools: Postman, Chrome Dev Tools, Jest for unit tests

11. Future Enhancements AI-driven news summarization

- Voice-based news assistant
- Integration with podcasts and video news sources
- Multi-language support