

Project Documentation

1. Introduction

- Project Title: InsightStream: Navigate the News Landscape
- Team ID: [Add your ID]
- Team Leader: S. Vaitheswari/vaitheswaris80@gmail.com
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2. Project Overview

- Purpose: InsightStream helps users explore, analyze, and understand news from multiple sources by providing categorized feeds, sentiment insights, and bias detection to ensure informed decision-making.
- Features:
 - News aggregation from verified sources
 - Categorized browsing (Politics, Technology, Sports, etc.)
 - Sentiment & bias analysis using AI/ML
 - Personalized dashboards for users
 - Admin panel for managing news feeds & users
 - Feedback & bookmarking system

3. Architecture

- Frontend: React.js with Bootstrap and Material UI
- Backend: Node.js + Express.js for server logic & APIs
- Database: MongoDB (stores users, preferences, news metadata, and bookmarks)
- External APIs: News API / Google News RSS for live data

4. Setup Instructions

Prerequisites:– Node.js– MongoDB– Git– React.js– Express.js– Visual Studio Code

Installation Steps:

```
# Clone repositorygit clone <repo-link># Install client dependenciescd clientnpm install# Install server dependenciescd ../servernpm install
```

5. Folder Structure

```
InsightStream/|-- client/      # React frontend|  |-- components/|  |-- pages/|  |-- server/      # Node.js backend|  |-- routes/|  |-- models/|  |-- controllers/
```

6. Running the Application

Frontend:cd clientnpm start

Backend:cd servernpm start

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

7. API Documentation

- User APIs: – /api/user/register – /api/user/login
- News APIs: – /api/news/fetch (get latest categorized news) – /api/news/:id (get detailed article)
- Bookmarks: – /api/bookmark/add – /api/bookmark/list

8. Authentication

- JWT-based login system
- Middleware protects private routes (bookmarks, personalized dashboard)

9. User Interface

- Landing Page (latest news)
- Category Page (Politics, Sports, Tech, etc.)
- Personalized Dashboard
- Admin Panel
- News Details Page with sentiment insights

10. Testing

- Manual testing milestone-based
- Tools: Postman, Chrome Dev Tools

11. screenshots and demo



12. Known Issues

- Limited news API free-tier restrictions
- Sentiment analysis may need tuning for accuracy

13. Future Enhancements

- Mobile app version
- Multi-language support
- Advanced recommendation engine
- Real-time news alerts