**Project Documentation**

InsightStream : Navigate the News Landscape

# Introduction

* **Project Title:** InsightStream : Navigate the News Landscape
* **Team ID** :NM2025TMID36608
* **Team Leader**: MONISHKARTHICK S – karthikmonish74@gmail.com
* **Team Members:**
* MAGESH N – mageshnarayanan1981@gmail.com
* MAHALAKSHMI J – mahalaxm2520@gmail.com
* MURALIDHARAN M – dharanmurali312@gmail.com

# 2. Project Overview

* **Purpose: InsightStream is an intelligent news navigation platform that empowers users to explore, filter, and analyze the ever-changing global news landscape. By leveraging advanced data aggregation, natural language processing (NLP), and sentiment analysis, InsightStream transforms massive volumes of raw news articles into structured insights.**
* **Features:**
* News Aggregation Collects news articles,
* blogs, and press releases from verified global sources.
* Search & Filter - Users can filter by categories (politics, finance, science, sports, etc.), sentiment (positive/negative/neutral), and region.
* Trend Detection - Uses Al to identify rising topics, keywords, and hashtags.
* Bias & Source Transparency - Provides
* metadata on publisher bias rating and credibility.
* Personalized Dashboards - Custom feeds
* Tailored to user profiles and interests

# 3. Architecture

* Data Ingestion: APIs, RSS feeds, web scraping (with compliance).
* Processing Engine: NLP models for classification, clustering, sentiment analysis.
* Database Layer: Scalable cloud-based storage (structured + unstructured data).
* Application Layer: RESTful API serving frontend dashboards and mobile apps.
* Frontend: Interactive web and mobile Ul with personalization features.
* Security: Encrypted data storage, role-based access, GDPR/CCPA compliance.

# 4. Setup Instructions

* **Prerequisites:**
* Node.js
* MongoDB
* Git
* React.js
* Express.js
* Mongoose **–** Visual Studio Code
* **Installation Steps:**

# Clone the repository git clone

# Install client dependencies cd client npm install

# Install server dependencies cd

../server npm install

# 5. Folder Structure

SB-Works/

|-- client/ # React frontend

|\_\_components/ L\_\_ pages/

|\_\_ server/ # Node.js backend

|\_\_routes/

|\_\_ models/

|\_\_ controllers/

# 6. Running the Application

* **Frontend:**

cd client npm start • **Backend:**

cd server npm start

* **Access:** Visit http://localhost:3000

# 7. API Documentation

* **User:**
  + /api/user/register
  + /api/user/login
* **Projects:**
  + /api/projects/create
  + /api/projects/:id
* **Applications:**
* /api/apply
* **Chats:**
  + /api/chat/send **–**/api/chat/:userId

# 8. Authentication

* JWT-based authentication for secure login
* Middleware protects private routes

# 9. User Interface

* Landing Page
* Freelancer Dashboard
* Admin Panel
* Project Details Page

# 10. Testing

* Manual testing during milestones
* Tools: Postman, Chrome Dev Tools

1. **Screenshots or Demo**

Video Link : <https://drive.google.com/file/d/1lT1MJy3NhpGj4F36DvdTZCMf09pNTmTG/view?usp=drivesdk>

**Known Issues**

# 13. Future Enhancements

* Al-powered summarization for quick news digests.
* Voice assistant integration for hands-free updates.
* Collaboration tools for team-based research.
* Predictive analytics for forecasting news trends.