Project Documentation

# 1.Introduction

• Project Title: **Insight Stream Landscape News**

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# Project Overview

• Purpose: Insight Stream Landscape News is a digital news platform designed to deliver real-time, curated insights on global and regional landscapes. It focuses on environment, business, and socio-political news streams, providing readers with a personalized, reliable, and visually engaging news experience.

• Features:

- Real-time news feed with category filters  
 - AI-driven content summarization  
 - Interactive data visualizations for landscape insights  
 - User personalization & saved topics  
 - Feedback and community discussions  
 - Admin control panel for content management

# 3. Architecture

• Frontend: React.js with Tailwind CSS and Material UI for responsive design

• Backend: Node.js with Express.js managing server-side logic and REST APIs

• Database: MongoDB for storing user profiles, articles, analytics, and preferences

• APIs: News API & AI NLP models for summarization

# Setup Instructions

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

• Installation Steps:

# Clone the repository  
 git clone <https://github.com/nithyasris21/InsightStream.git>  
  
 # Install client dependencies  
 cd nithyasris21/InsightStream  
 npm install  
  
 # Install server dependencies  
 cd ../server  
 npm install

# Folder Structure

Insight-Stream/  
|-- client/ # React frontend  
| |-- components/  
| |-- pages/  
|-- server/ # Node.js backend  
| |-- routes/  
| |-- models/  
| |-- controllers/  
|-- config/ # Configuration files  
|-- public/ # Static assets

# Running the Application

• Frontend:  
 cd client  
 npm start  
  
• Backend:  
 cd server  
 npm start  
  
• Access: Visit http://localhost:3000

# 6.API Documentation

• User:  
 - POST /api/user/register  
 - POST /api/user/login  
  
• News:  
 - GET /api/news/latest  
 - GET /api/news/:category  
  
• Insights:  
 - GET /api/insights/trends  
 - POST /api/insights/save  
  
• Comments & Feedback:  
 - POST /api/comment/add  
 - GET /api/comment/:articleId

# Authentication

• JWT-based authentication for secure login  
• Middleware to protect private and admin routes

# User Interface

• Landing Page with top stories  
• Category-based News Streams (Environment, Business, Social, etc.)  
• Personalized Dashboard  
• Admin Panel for editors  
• Insight & Visualization Page

# 10. Testing

• Manual Testing: Component-level during development  
• Automated Testing: Jest & Mocha for unit tests  
• Tools: Postman, Chrome Dev Tools

# 11. Screenshots or Demo

\*(Attach UI screenshots or provide demo links here)\*

# 12. Known Issues

• Occasional API delays during high traffic  
• Limited offline support

# 13. Future Enhancements

• Mobile App integration  
• AI-powered voice news assistant  
• Multilingual news delivery  
• Subscription-based premium insights