# Project Documentation
Project Title

- ## Introduction

  - **Project Title:Insight Stream**

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- ## Project Overview

  - **Purpose:** insight stream is a data-driven analytics platform that helps organization capture process,and visulaize insights from multiple data sources in real- time. it simplifies complex data handling.enabling smater decision-making through interactive dashbords and reports.

  - **Features:**

Real-time data collection and integration


Customizable dashboards and visualizations


Advanced analytics and reporting


User authentication and access control


Responsive and intuitive user interface


- ## Architecture

**Frontend: React.js, TailwindCSS, Material UI**

**Backend: Node.js, Express.js (REST APIs)**

**Database: MongoDB (stores user profiles, datasets, reports, insights)**

- **Setup Instructions**

**Prerequisites:**

**Node.js**

**MongoDB**

**Installations:**

**Git**

**MongoDB Compass / VS Code**

# Clone the repository git clone

# Install client dependencies cd

client npm install

# Install server dependencies cd

../server npm install

- **Folder Structure**

```
SB-Works/
|-- client/                 # React frontend
    |_
     components
     / L_pages/
|___server/                 # Node.js backend
    |___routes/
      |___models/
        |___controllers/
```

- **Running the Application**

**Frontend:**

**npm start**

**Backend:**

**npm run dev**

**API Documentation:**

**Manual testing using Postman**

**Tools: Postman, Chrome DevTools**

- **Access:** Visit [http://localhost:3000](http://localhost:3000)
- **API Documentation**

**User:**

**POST /api/user/register**

**POST /api/user/login**

**Data Stream:**

**POST /api/data/upload**

**GET /api/data/view**

**Insights:**

**GET /api/insights/report**

**GET /api/insights/dashboard**

- **Authentication**

JWT-based secure login system

Role-based access control for different user levels

Middleware for route protection

· **User Interface**
**Pages:**

**Login/Register**

**Dashboard (real-time insights)**

**Data Upload Page**

**Reports & Analytics Page**

**Profile & Settings**

- **Known Issues**

**Performance may degrade with very large datasets**

**Limited offline support**

- **Future Enhancements**

**Integration with third-party APIs (Google Analytics, Salesforce, etc.)**

**Machine Learning–based predictive insights**

**Push notifications for critical updates**

**Export options (PDF, Excel, CSV)**