

NAAN MUDHALVAN PROJECT

INSIGHT STREAM: NAVIGATE THE NEWS LANDSCAPE

1. Introduction

- Project Title : Insight Stream Project Steps for Execution
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- ROLE : DEMO VIDEO

2. Project Overview

Purpose:

Insight Stream is a news aggregation and analysis platform designed to help users easily navigate the overwhelming digital news landscape. It collects news from trusted sources, categorizes content, provides summaries, and applies sentiment analysis to deliver insightful perspectives.

Features:

- Real-time news aggregation from multiple APIs
- Smart categorization (Politics, Sports, Tech, Health, etc.)
- AI-driven summarization for quick reading
- Sentiment analysis and trend visualization
- Personalized recommendation engine
- User dashboard with bookmarks and history

3. Architecture

- **Backend:** Node.js + Express.js (handles API requests, news data processing)

- **Database:** MongoDB (stores users, preferences, bookmarks, and aggregated news)
- **External APIs:** News API, Google News, or other RSS feeds for news sources
- **AI/ML:** Natural Language Processing (NLP) for summarization & sentiment analysis

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

- Insight Stream/

| -- client/ # React frontend

| └ components/

| └ pages/

| -- server/ # Node.js backend

| └ routes/

| └ models/

| └ controllers/

| -- database/ # MongoDB collections

6. Running the Application

Frontend:

```
cd client  
npm start
```

Backend:

```
cd server  
npm start
```

Access:

Visit <http://localhost:3000>

7. API Documentation

User:

POST /api/user/register

POST /api/user/login

News:

GET /api/news/latest

GET /api/news/category/:type

GET /api/news/trends

User Dashboard:

POST /api/bookmark

GET /api/bookmarks/:userId

8. Authentication

- a. JWT-based authentication for secure login
- b. Middleware protects private route

9. User Interface

- c. Landing Page
- d. News Dashboard (categories, trending, sentiment)
- e. Personalized Feed Page

- f. Bookmark Manager
- g. Admin Panel]

10. Styling

CSS Frameworks/Libraries: Tailwind CSS for styling; Styled Components for scoped styles.

Theming: Dark and light mode toggle implemented via context.

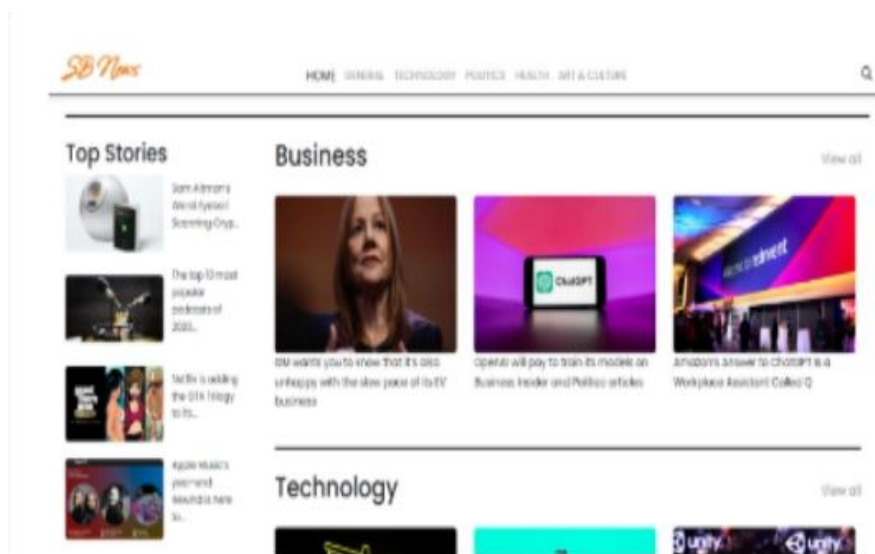
11. Testing

Manual Testing: During development milestones

Tools: Postman, Chrome Dev Tools, Jest (for frontend unit tests)

12. Screenshots or Demo

Add actual screenshots or a demo link: - Demo Link: [insightstreamkanieshkka.zip](#)



14. Known Issues

- & Limited free-tier access to news APIs
- & Summarization accuracy may vary depending on content length

15. Future Enhancements

- & Multilingual news summarization
- & Voice-based search and accessibility features
- & Advanced AI-based bias detection in news sources
- & Mobile app version (React Native / Flutter)