

FRONTEND DEVELOPMENT

Project Documentation

1. Introduction

- **Project Title:**

INSIGHTSTREAM: Navigate the News Landscape

- **Project Name:**

NEXORA NEWSLINE

- **Project Information :**

Github repositorie URL link:

<https://github.com/bharathimrkb741/InsightStream-of-BM.git>

Github repositotire name:

[InsightStream-of-BM](#)

- **Team ID : NM2025TMID37976**

- **Team Information :**

- **Team Size : 4**

- **Team Leader :**

NAME : BHARATHI

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- **Team Members:**

NAME : RAJESWARI

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NAME : NIROSHA

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NAME : MADHU PRIYA

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- **Team Role :**

BHARATHI : Coding & Development (app front-end)

RAJESWARI: Monitoring, Editing, Script Writing (for video)

NIROSHA: Voice-over (for video)

MADHUPRIYA: Project Documentation

2. Project Overview :

Purpose:

Nexora Newslane is a modern news portal frontend built with React.js. The purpose of this project is to deliver a responsive, fast, and user-friendly interface where users can browse news articles across different categories such as General, Technology, Politics, Health, Art & Culture, and Business.

Features:

- Category-based navigation (General, Technology, Politics, etc.)
- Home page with top stories and featured articles
- Newsletter subscription functionality
- Dynamic news sections (Politics, Business, Technology, etc.)

- Search bar for quick access to news articles

3. Architecture:

- Header/Navbar → Displays the logo, navigation links, and search bar.
- Hero/Featured Section → Highlights trending or featured news with large thumbnails.
- Category Sections → Renders articles for specific categories (Politics, Business, Technology, etc.).
- Sidebar → Displays “Top Stories” .
- Newsletter Subscription → Simple form for user email input.
- Footer → Contains links to categories, copyright info, and additional sections.
- State Management:

Local State with React’s useState and useEffect for managing UI interactions.

- Routing:
 - Implemented using React Router v6. Routes include:
 - / → Home Page
 - /category/:name → Category-specific news (e.g., Technology, Politics)
 - /article/:id → Single article detail page

4. Setup Instructions :

- **Prerequisites:**

Frontend: React.js, HTML5, CSS3, JavaScript (ES6+)

Backend: Node.js, Express.js

Database: MongoDB, Mongoose

Authentication: JSON Web Tokens (JWT)

Development Tool: Visual Studio Code

Version Control: Git & GitHub

Testing Tools: Postman, Chrome Dev Tools

- **Installation:**

Clone repository

```
git clone https://github.com/your-repo/nexora-newsline.git
```

Navigate into project

```
cd nexora-newsline
```

Install dependencies

```
npm install
```

Start development server

```
npm start
```

5. Folder Structure :

code/

|— node_modules/ # Auto-generated (don't touch)

|— public/ # Public assets (favicon, logos, manifest)

| |— favicon.ico

| |— index.html

| |— logo192.png

| |— logo512.png

| |— manifest.json

```
|   └─ robots.txt
|
|─ src/           # All React code inside src
|   └─ components/      # Reusable components
|       └─ Footer.jsx
|       └─ Hero.jsx
|       └─ HomeArticles.jsx
|       └─ NavbarComponent.jsx
|       └─ Newsletter.jsx
|       └─ TopStories.jsx
|
|   └─ pages/          # Page-level components
|       └─ CategoryPage.jsx
|       └─ Home.jsx
|       └─ NewsPage.jsx
|
|   └─ context/        # Context API / state management
|       └─ GeneralContext.jsx
|
|   └─ styles/         # CSS files (separate per component/page)
|       └─ App.css
|       └─ CategoryPage.css
|       └─ Footer.css
|       └─ Hero.css
```

```
| | └─ Home.css
| | └─ HomeArticles.css
| | └─ Navbar.css
| | └─ NewsLetter.css
| | └─ NewsPage.css
| | └─ TopStories.css
| |
| └─ App.js          # Main app component
| └─ App.test.js
| └─ index.js        # Entry point
| └─ index.css       # Global CSS
| └─ logo.svg        # React logo (replace with your own logo if needed)
| └─ reportWebVitals.js
| └─ setupTests.js
|
└─ .gitignore
└─ package.json
└─ package-lock.json
└─ README.md
```

6. Running the Application

- Start the Frontend Server:
- `cd code && npm install`
- `npm start`

This will run the app locally on <http://localhost:3000>

7. API Documentation :

- **Navbar**

Purpose: Provides navigation across categories.

Props: None (links are static or fetched from config).

- **NewsCard**

Purpose: Displays a single news item (thumbnail, title, description).

Props: title, image, description, category, link.

- **CategorySection**

Purpose: Renders multiple NewsCard components for a specific category.

Props: categoryName, articles.

- **NewsletterForm**

Purpose: Collects email for newsletter subscription.

Props: None.

- **Footer**

Purpose: Displays site links and copyright.

Props: None.

8. State Management :

- **Global State:**

Not implemented yet. (Future enhancement: Context API/Redux for bookmarks, theme, user data.)

- **Local State:**

Used for managing search queries, newsletter form input, and category-specific article fetching.

9. User Interface

- **Navbar:** Consistent navigation across all pages with links to Home, Categories, and Search.
- **Landing Page (Home):** Features a hero section, "Top Stories," and previews of articles from different categories.
- **Category Pages:** Dynamic pages that filter and display articles based on the selected category (e.g., /technology).
- **Subscription Section:** Component with an email input and checkboxes for category selection, integrated on the homepage or a dedicated page.

10. Styling :

- CSS Frameworks/Libraries:
- Tailwind CSS for utility-first styling.
- Custom CSS for gradients and layouts.
- Purple gradient primary theme.
- Consistent card and button styling.

11. Testing :

- Testing Strategy:

Unit tests using Jest.

Component testing with React Testing library.

Snapshot tests for UI consistency.

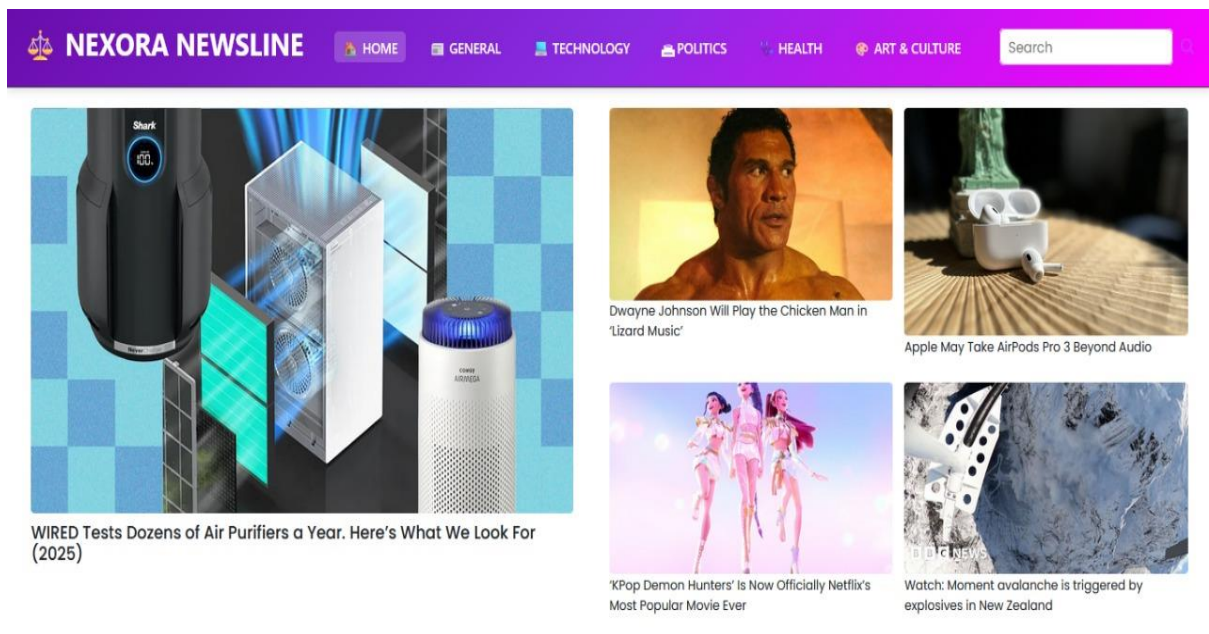
- Code Coverage:

Configured with Jest coverage reports.

12. Known Issues :

- Search bar does not yet filter results dynamically.
- Newsletter subscription form is not connected to backend API.
- Articles are currently mock data (not from live API)

13. Screenshots or Demo :



Top Stories



Thousands to take part in Great North Ru...



Russia targets WhatsApp and pushes new ...



Turning KPop Demon Hunters into a franch...



Disney will pay \$10 million to settle FT...



Razer's Gengor Edition headphones are no...



Razer's Gengor Edition headphones are no...

Business



Zoox's robotaxis are open for business in Las Vegas



Nvidia CEO Says AI Will Actually Make Us Busier in the Future



MrBeast's Craziest Challenge Yet: Launching a Phone Company

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Technology

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Nikon's first RED co-brand is the Nikon ...



The Regular iPhone 17 is Reportedly Prov...



These 18 Popular VPNs Share Parent Compa...



These popular JBL headphones are ONLY 30...

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Dolby Atmos FlexConnect Lets You Place Speakers Anywhere



How China's Propaganda and Surveillance Systems Really Operate



Musk Stakes Tesla Future on One Major Gamble

Politics

[View all](#)

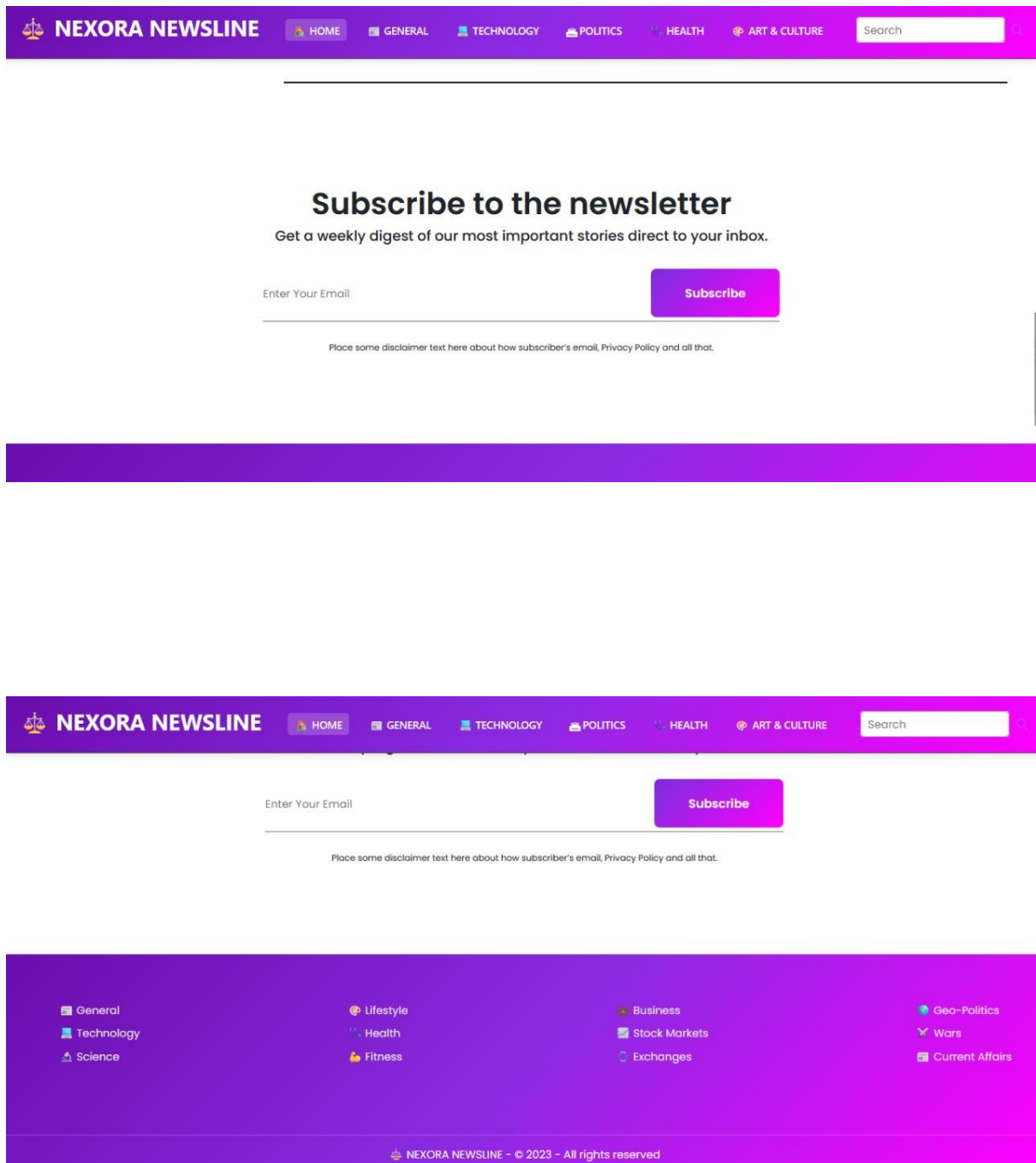
Chris Mason: How Polanski's Green leadership could impact UK politics



President Trump in UK for historic second state visit



Seven claims made in new royal book from Brexit to Coronation



14. Future Enhancements :

- Enable user login and bookmarking of favorite articles.
- Add animations for smoother transitions (Framer Motion).

