**Frontend Development with React.js**

**Project Documentation: A4 News App**

**1. Introduction**

**Project Title:**

A4 News App

**Team Members and Roles:**

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**Team Members:**

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**2. Project Overview**

**Purpose:**

A4 News is a web application designed to enhance the way users consume news by offering a seamless, interactive experience. It aggregates news from multiple sources, categorizes content, and provides an advanced search feature for easy navigation.

**Features:**

* Aggregated News from API sources.
* Intuitive and user-friendly interface.
* Powerful search functionality.
* Visually engaging design with categorized news display.
* Subscription feature for daily news updates.

**3. Architecture**

**Component Structure:**

The project follows a modular React.js component structure:

* Pages Folder: Contains different application pages.
* Components Folder: Stores reusable UI elements.
* Context Folder: Manages application state using Context API.
* Styles Folder: Stores CSS files for styling.

**State Management:**

Uses Context API for global state management and local state handling within components.

**Routing:**

Implemented using React Router Dom for smooth navigation between pages.

**4. Setup Instructions**

**Prerequisites:**

Node.js and npm (Download: <https://nodejs.org/en/download>)

Git for version control (Download: <https://git-scm.com/downloads>)

**Installation:**

git clone repository link

1. Clone the repository:

cd news-app

2. Install dependencies:

npm install

3. Start the development server:

npm start

## 4. Folder Structure

nexus-news/  
│── src/  
│ ├── components/   
│ ├── context/   
│ ├── pages/   
│ ├── styles/   
│── public/  
│── package.json  
│── README.md

**6. Running the Application**

**Run the frontend server:**  
  
npm start  
  
Access the app at http://localhost:3000

**7. Component Documentation**

* Navbar: Displays navigation links.
* Hero Section: Highlights trending news.
* NewsCard: Displays individual news articles.

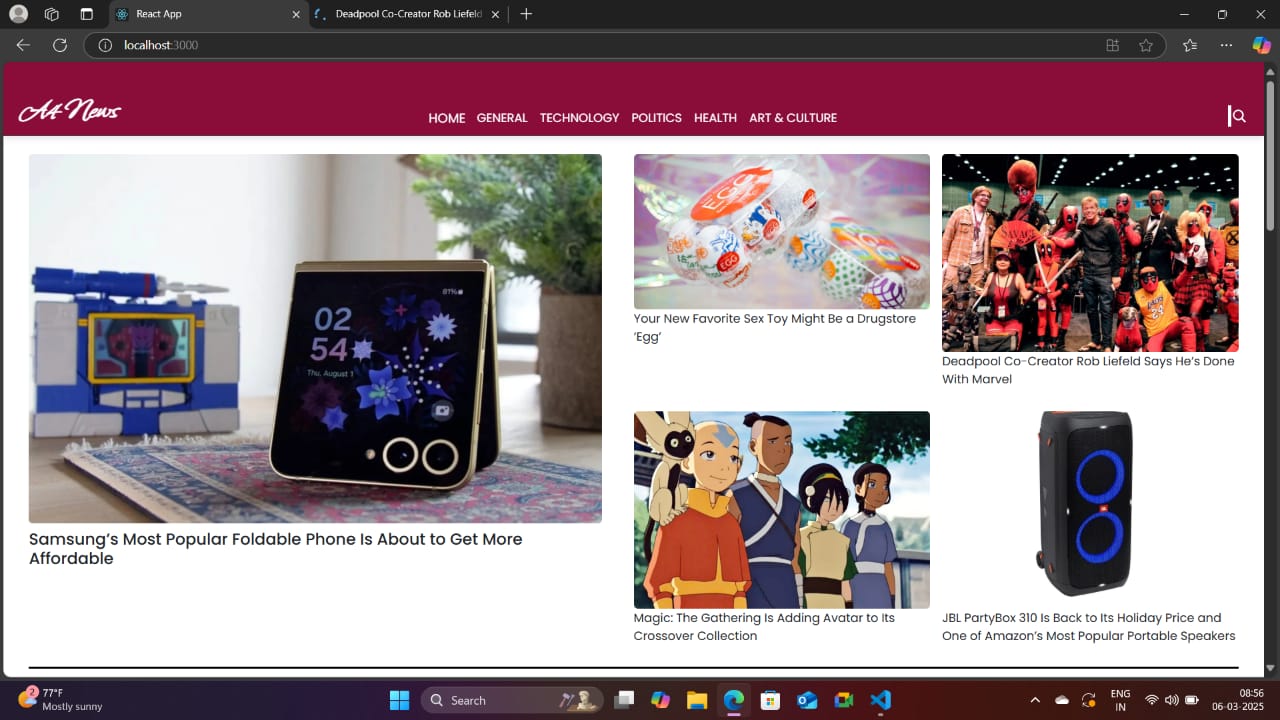
**8. State Management**

* Global State: Managed using Context API.
* Local State: Controlled within individual components.

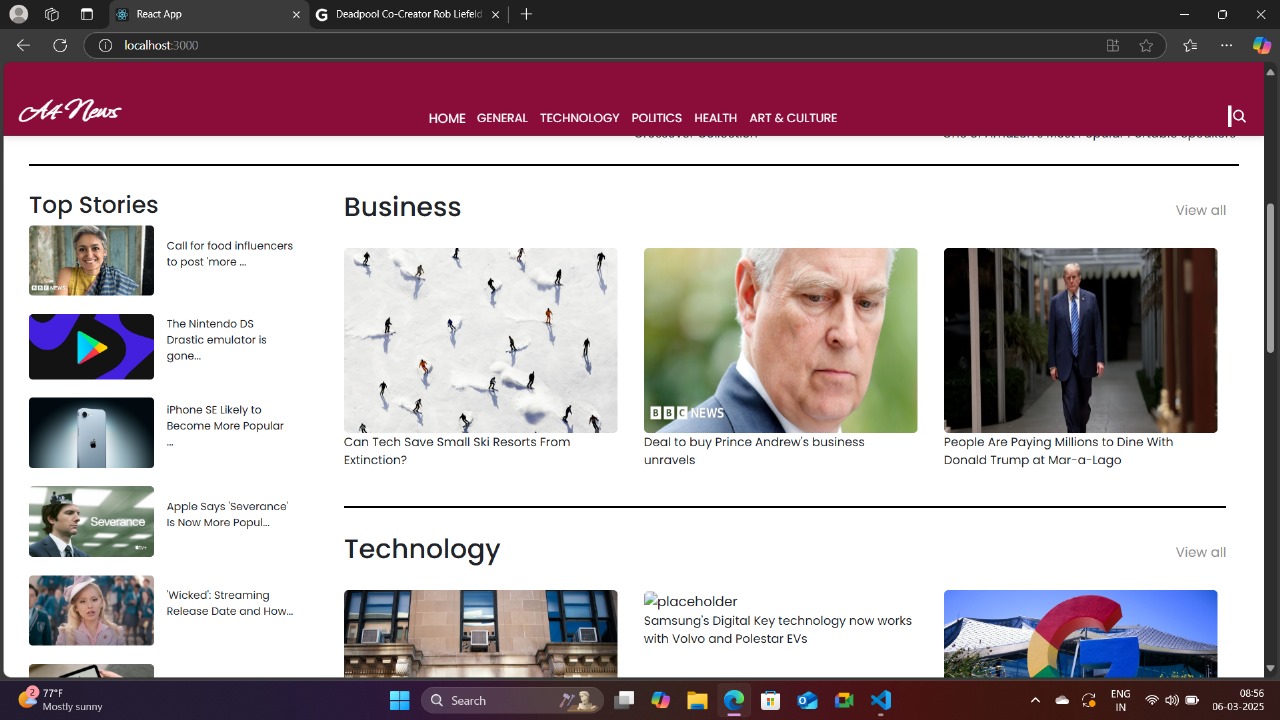
**9. User Interface**

Screenshots:

* Hero section showcasing trending news



* Category search results page.



**10. Styling**

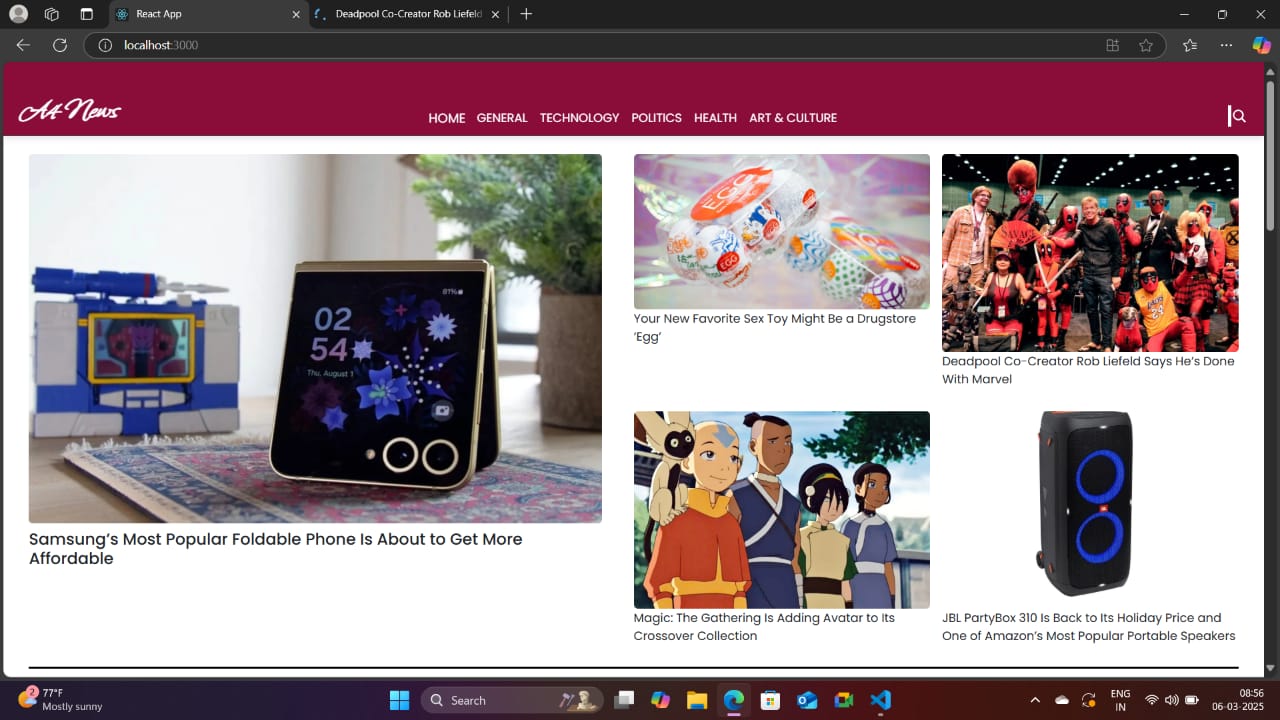
* Bootstrap/Tailwind CSS used for UI design.
* React Icons for visual elements.

**11. Testing**

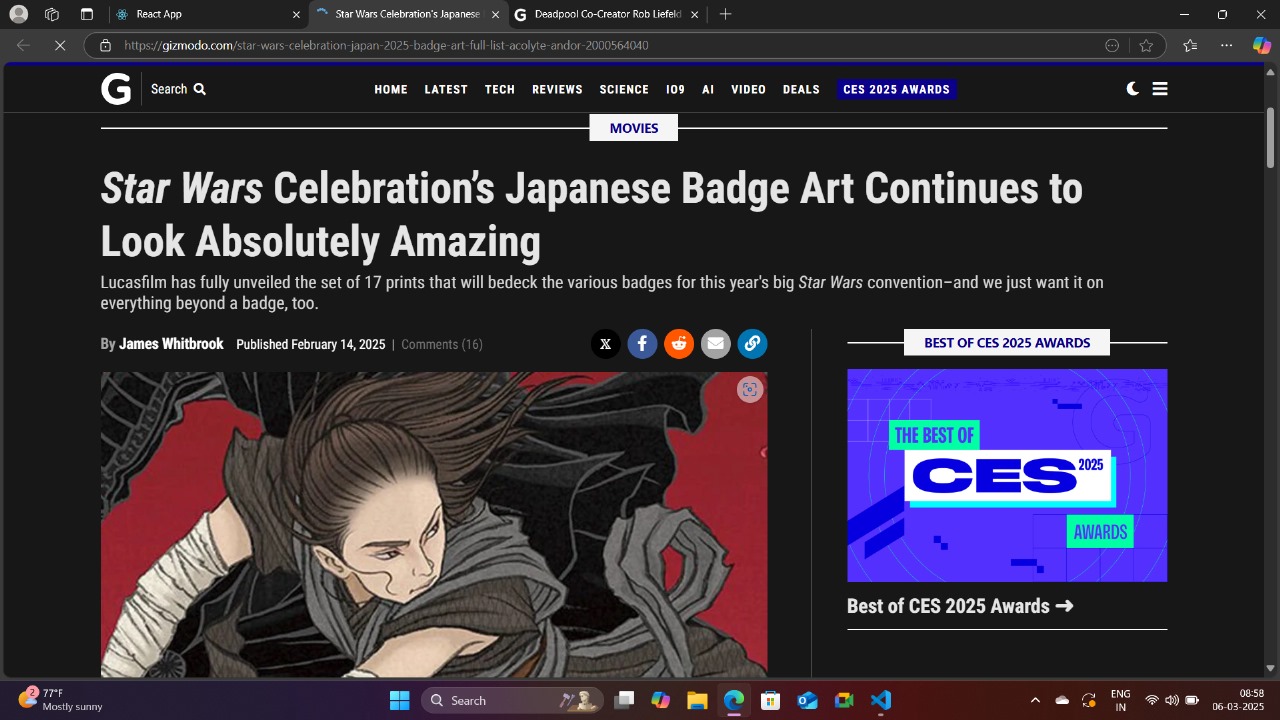
* Jest & React Testing Library used for unit and integration testing.

**12. Screenshots or Demo**

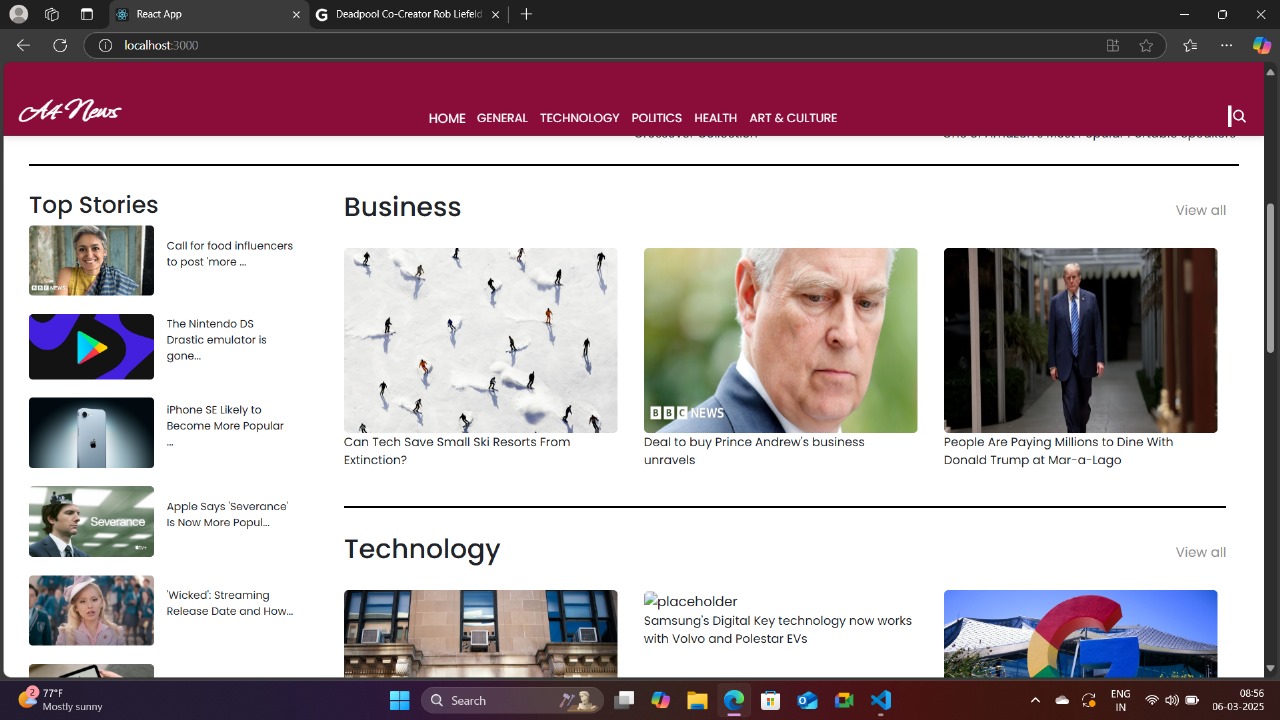
* **Hero component**

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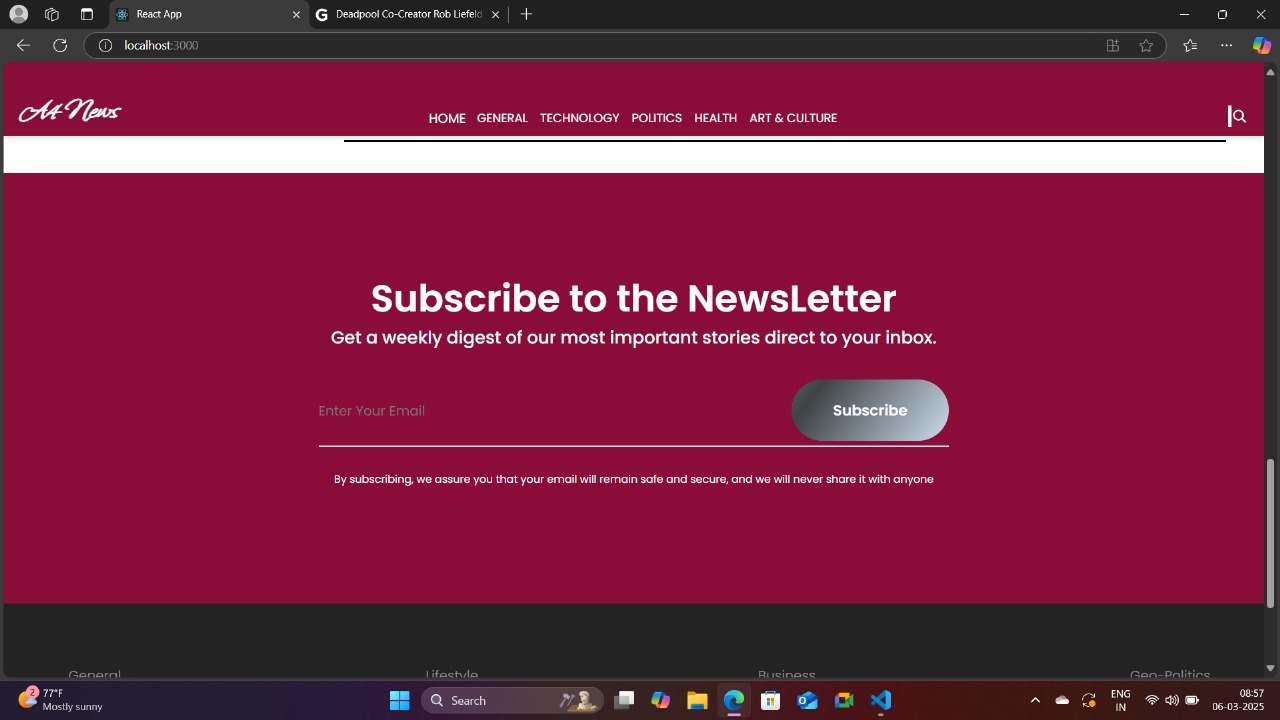
* **Redirected component:**

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* **Category component**

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* **News Letter:**

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Live Demo:

<https://drive.google.com/file/d/1MN-gX1HM8RnPp85DJV44f6AdlGcUO9yV/view?usp=drive_link>

**13. Known Issues**

* Some API calls may have rate limits.
* UI improvements needed for better mobile responsiveness.

**14. Future Enhancements**

* User Authentication
* Push Notifications
* Dark Mode

**15. Code Repository**

Use the source code link: [https://drive.google.com/file/d/1MXxIYN5fDLYYec4SVnw9-L3ZNd-z3rhg/view?usp=drive\_link](https://drive.google.com/file/d/1MXxIYN5fDLYYec4SVnw9-L3ZNd-z3rhg/view?usp=drive_link%20)

Thank you!