**Frontend Development with React.js**

**Project Documentation**

**Introduction**

**Project Title:** Insight

**Team Members:**

Hakilan-Team Leader

Harisakthi-Team Member

Gugan kumar-Team Member

Arif-Team Member

**Project Overview**

**Purpose:**  
The project is a news-oriented web application that displays top stories, categorized articles, and newsletters.

**Features:**

* Home page with hero section and latest articles
* Navigation bar and footer
* Category-based browsing of news articles
* Newsletter subscription form
* Responsive UI built with React and Bootstrap

**Architecture**

**Component Structure:**

* **NavbarComponent** – Main navigation bar
* **Hero** – Hero banner section
* **TopStories** – Displays top news stories
* **HomeArticles** – Shows articles on the home page
* **NewsLetter** – Subscription form for newsletters
* **Footer** – Footer with links and info

**State Management:**

* Implemented using **React Context API** (via GeneralContext.jsx) for global state handling.

**Routing:**

* Uses **react-router-dom** for navigation.
* Pages include:
  + **Home.jsx**
  + **NewsPage.jsx**
  + **CategoryPage.jsx**

**Setup Instructions**

**Prerequisites:**

* Node.js
* npm

**Installation:**

git clone <repository-url>

cd news-app

npm install

**Environment Variables:**  
[Add if applicable – e.g., API keys]

**Folder Structure**

* **src/components/** → Reusable UI components (Navbar, Hero, Footer, etc.)
* **src/pages/** → Page-level components (Home, NewsPage, CategoryPage)
* **src/context/** → Global state management (GeneralContext.jsx)
* **src/styles/** → Styling files
* **public/** → Static assets

**Running the Application**

npm start

Runs the frontend locally at http://localhost:3000.

**Component Documentation**

**Key Components:**

* NavbarComponent.jsx → Navigation bar
* Hero.jsx → Hero section
* TopStories.jsx → Shows trending stories
* HomeArticles.jsx → Articles for homepage
* NewsLetter.jsx → Newsletter subscription form
* Footer.jsx → Footer section

**Reusable Components:**

* Navbar, Footer, Newsletter (can be reused across pages).

**State Management**

**Global State:**

* GeneralContext.jsx manages shared data across pages.

**Local State:**

* Components manage UI-specific state with React hooks (useState, useEffect).

**User Interface**

* Responsive design with Bootstrap and custom CSS.
* Icons via react-icons.

**Styling**

**CSS Frameworks/Libraries:**

* **Bootstrap / React-Bootstrap**
* Custom styles in src/styles

**Theming:**

* Default Bootstrap theming + custom overrides.

**Testing**

**Testing Strategy:**

* Unit and integration testing with **Jest** and **React Testing Library**.

**Code Coverage:**

* [Not configured / Add details if coverage tools are set up].

**Screenshots or Demo**

[Add screenshots or a deployed link]

**Known Issues**

* [Add any known issues here]

**Future Enhancements**

* Dark mode / theming support
* Improved animations
* More categories & filters
* API integration for dynamic news feeds