**FRONT-END DEVELOPMENT with React.js**

**Project Documentation**

**1.Introduction** :

* **PROJECT TITLE:** INSIGHT STREAM: Navigate the News Landscape.
* **TEAM ID:** NM2025TMID43198
* **TEAM SIZE:** 4
* **TEAM LEADER:** DHEVADHARSHINI V
* **ROLE:** CODING AND DEVELOPMENT
* **TEAM MEMBER:**AKALYA K A
* **ROLE:** CODING AND DEVELOPMENT
* **TEAM MEMBER:** DHARUNIKASRI K
* **ROLE:** CODING AND DEVELOPMENT
* **TEAM MEMBER:** DHEVIPRIYA P
* **ROLE:** CODING AND DEVELOPMENT

**2. Prologue:**

* Insight Stream is a modern web application designed to help users explore, filter, and engage with news across multiple categories, offering a personalized and intuitive experience. It aims to empower users to make informed decisions by streamlining news discovery and consumption.

**3. Project Overview:**

**Purpose:**

* To provide users a streamlined platform for exploring and engaging with news from diverse sources.
* To offer personalized recommendations and bookmarking for deeper engagement.

**Features:**

* Personalized news feed
* Category-based navigation
* Search and filter functionality
* Bookmarking of articles
* Theming options (light/dark)

**4. Technical Architecture:**

**Front-end:**

* Built using frameworks such as React.js or Vue.js for seamless user interaction.
* Routing managed with React Router for smooth navigation between pages.

**Back-end:**

* API client designed to fetch news via external APIs (e.g., NewsAPI, Rapid API).
* Context API used for global state management including bookmarks, theme settings, and search data.

**Component Structure:**

* Reusable components for displaying articles, categories, bookmarks, and search results.

**5. Setup Instructions**

1. Clone the project repository**.**

2. Install dependencies via npm or yarn.

*text*

*cd insightstream-news-app*

*npm install*

3. Set up environment variables (API keys, etc.).

4. Start the development server.

*text*

*npm start*

**6. Folder and Component Structure:**

* /src
* components: Header.js, NewsList.js, NewsCard.js, NewsDetails.js, Footer.js
* pages: Home.js, Categories.js, Bookmarks.js
* assets: images, icons, styles
* utils: api.js, helpers.js, constants.js
* App.js, index.js

**7. State Management:**

* Global State: Manages bookmarks, theme preferences, and user search queries (Context API).
* Local State: Handles search inputs, pagination, and UI features using React's use State hook

**8. User Interface and Styling:**

* Home page with live headlines.
* Category and search results pages.
* Bookmarks view.
* Theming: Customizable light/dark mode toggle for accessibility and comfort.

**9. Testing Strategy:**

* Unit and integration testing for components.
* API endpoint testing, including error handling, especially for bookmarks and news fetching

**10. Empathy Mapping and Ideation:**

* The development team utilized empathy mapping to understand user needs and motivations, ensuring that InsightStream addresses the true challenges of navigating digital news, including misinformation and user engagement
* This document outlines a robust and flexible approach for implementing "InsightStream: Navigating the News Landscape", suitable for student projects or scalable production environments.