## Project Documentation – Insight Stream: Navigate the News Landscape

## Introduction

Project Title: Insight Stream – Navigate the News Landscape  
  
Team Members:  
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Project Overview:

- Purpose: A React-based web application for exploring and navigating news articles from multiple categories and sources in real-time.  
- Goals:  
 - Deliver a clean, responsive, and intuitive news browsing UI.  
 - Allow filtering, searching, and personalization.  
 - Ensure smooth navigation with React Router.

## Architecture

Component Structure:  
- App.js – Root component with router setup.  
- Header – Navigation bar with links to Home, Categories, Preferences.  
- Footer – App footer with credits/info.  
- NewsFeed – Displays a list/grid of articles.  
- ArticleCard – Reusable card for each article.  
- SearchBar – Handles user input for search queries.  
- CategoryFilter – Filter articles by category.  
- Preferences – UI for saving user interests (frontend state only).  
  
State Management:  
- Global State: Managed with React Context API (user preferences, active category).  
- Local State: useState hooks for search queries, loading states, and UI toggles.  
  
Setup Instructions

Prerequisites  
- Node.js   
- npm   
  
Installation:  
cd code  
npm install  
npm start

## Running the Application

Frontend (React):  
cd code  
npm start

## Component Documentation

Key Components:  
- NewsFeed → Displays fetched articles. Props: category, searchQuery.  
- ArticleCard → Shows article details (title, image, description). Props: article.  
- SearchBar → Manages user input for search. Props: onSearch.  
- CategoryFilter → Renders category list for filtering. Props: onCategoryChange.  
  
Reusable Components:  
- Button  
- Loader (for API loading states)  
- Modal (for Preferences/settings UI)

## State Management

Global State (Context API):  
- User Preferences (selected categories, themes)  
- Active Category  
  
Local State (useState):  
- Search input  
- Loading states  
- Modal visibility

## User Interface

- Home Page: Displays trending/latest news.  
- Category Page: News filtered by category.  
- Article Page: Expanded article details.  
- Preferences Page: User-selected categories and settings.

## Styling

- Framework: CSS  
- Theming: Light/Dark mode toggle  
  
**Screenshots or demo**

Demo is attached.

**Issues**

No issues found.

## Future Enhancements

- Infinite scroll / lazy loading for news feed.  
- Offline mode with cached articles.  
- Bookmark/favorite functionality for users.  
- Multi-language UI support.