n News App Project Documentation

Introduction

Welcome to the News App project. This application provides users with the latest headlines and categorized news, offering a clean and user-friendly experience.

Project Overview

The News App is designed to fetch real-time news articles from a public API and display them in an organized format. The app supports category-based browsing, search functionality, and a responsive interface for both mobile and desktop users.

Architecture

The application follows a modular component-based architecture using React.
- Frontend: React, React Router, Axios
- State Management: React Context / Redux
- Styling: TailwindCSS / CSS Modules
- API: NewsAPI.org or similar

Setup Instructions

1. Clone the repository
git clone cd news-app

2. Install dependencies
npm install

3. Add your API key in .env file:
REACT_APP_NEWS_API_KEY=your_api_key

Folder Structure

news-app/
nnn public/
nnn src/
n nnn components/ n
nnn pages/
n nnn hooks/
n nnn context/
n nnn assets/
n nnn App.js
n nnn index.js
nnn package.json
nnn README.md

Running the Application

Run the development server:
npm start

The app will be available at http://localhost:3000.

Component Documentation

- Navbar: Navigation and category selection
- NewsList: Displays fetched news articles
- NewsCard: Shows individual article preview
- SearchBar: Allows keyword-based search
- Loader: Displays loading animation

State Management

Uses React Context API (or Redux if chosen)
Global state handles:
- Selected category
- Search query
- Loading state
- API response

User Interface

Clean, minimalistic UI
Responsive grid for news cards
Dark and light mode support (optional)

Styling

Implemented using TailwindCSS for consistency and responsiveness.

Testing

Unit tests written using Jest + React Testing Library.
Covers:
- API fetch
- Component rendering
- Search functionality

Demo Video Link

https://drive.google.com/file/d/1XemAwgDt2YYSRSCxayowplMOsOtWSQO8/view?usp=sharing&t=6

Known Issues

- Free News API has request limits

- Some articles may not load images
- No offline mode yet

Future Enhancements

- Add user authentication & bookmarks
- Push notifications for breaking news
- Offline mode with cached articles
- Multi-language support