Project Description

I developed a robust, maintainable, and high-performance client-side web application with a strong emphasis on mobile usability, efficient state management, and optimized initial load performance. Below is an overview of the technical requirements and implementation details that I completed as part of this project.

Key Technical Requirements

- **Client-Side Data Persistence:**
  I managed comments and favorites by leveraging local storage and IndexedDB.
- **State Management:**
  I employed Redux Toolkit to ensure efficient state management throughout the application.
- **Accessibility & Security:**
  I ensured that the application complies with accessibility standards and securely manages API keys.

Project Overview

I developed a web application that interfaces with the Unsplash API to search and display images. The key features of the project include:

1. **Search & Pagination:**
   I implemented functionality to display images based on user-entered keywords, complete with pagination support.
2. **Random Keyword Display:**
   I set up a system to display images based on a random keyword when no search term is provided.
3. **Detailed Image View:**
   I created a dedicated view for each image, allowing users to explore images in detail.
4. **Comment Feature:**
   I enabled users to comment on images, with all comment data stored on the client side.
5. **Favorite Images:**
   I implemented a feature that lets users save images as favorites, with the data stored locally.

Technology Stack

- **React**
- **TypeScript**
- **Redux Toolkit**
- **Vite**
- **SCSS** (ensuring responsive, mobile-first design)

Additional Requirements

1. **Code Organization & Documentation:**
   I organized the codebase using reusable components, appropriate design patterns, and thorough inline code documentation.
2. **Version Control & CI/CD:**
   I employed Git with structured commit messages and configured GitHub Actions for CI/CD, enabling deployment on GitHub Pages.
3. **Responsive & Accessible UI:**
   I prioritized mobile-first design by implementing media queries and ensuring the application is fully accessible.
4. **Error Handling & Resilience:**
   I integrated robust error handling for both API calls and local storage operations to ensure resilience.
5. **Deployment & Documentation:**
   I provided a comprehensive README that includes setup instructions, usage guidelines, deployment procedures, and an architectural overview.

Project Tasks

- I outlined the project's architecture, including component structure, state management, and routing strategy.
- I ensured meaningful Git commit messages and followed best practices for code documentation.
- I addressed additional concerns such as API error handling and caching strategies.