FAQ Accordion Component - Documentation

**Overview**

The **FAQ Accordion Component** provides an interactive way to display frequently asked questions. Users can expand or collapse each question to view or hide the answer. Only **one question can be open at a time** for a clean and structured UI.

**Features**

✅ **Expandable & Collapsible Questions** – Users can click to expand/collapse an answer.  
✅ **Single Active Question** – When a new question is clicked, the previously opened question closes.  
✅ **Mock Data Integration** – Uses a local JSON dataset (faqs.json).  
✅ **Smooth Transitions** – Animations for a better user experience.  
✅ **Responsive Design** – Mobile-friendly and adaptable UI.

**Technology Stack**

* **React (Vite)** – Fast and modern frontend framework.
* **React Hooks** (useState) – For managing open/close state.
* **JSON Data** – FAQs stored in faqs.json.
* **CSS Animations** – For smooth transitions.

**Installation & Setup**

1. **Clone the Repository**
2. **Install Dependencies**
3. npm install
4. **Run the Application**
5. npm run dev
6. **Open in Browser**

**Project Structure**

/src

│── components

│ ├── Accordion.js # Main Accordion Component

│ ├── AccordionItem.js # Individual FAQ Item Component

│── data

│ ├── faqs.json # FAQ Data

│── App.js # Main Application File

│── styles.css # Styling for Accordion

**Functionality**

**User Interaction**

* **Clicking a Question**: Expands the answer.
* **Clicking Another Question**: Closes the previous one and opens the new one.
* **Clicking an Open Question**: Collapses it.

**UI Behavior**

* Displays a **list of FAQ questions**.
* Each question is clickable to reveal the answer.
* Uses **CSS animations** for a smooth UI experience.

**State Management**

* openId – Stores the **ID of the currently open FAQ**.
* toggleFAQ(id) – Toggles between opening and closing FAQs.

**Test Cases**

**✅ Test Case 1: User clicks on a question.**

**Expected Output:**

* The answer expands under the selected question.

**✅ Test Case 2: User clicks on another question.**

**Expected Output:**

* The previously open answer collapses.
* The newly clicked question expands.

**✅ Test Case 3: User clicks on an already open question.**

**Expected Output:**

* The answer collapses, hiding the text.

**Constraints & Best Practices**

⚡ **Use useState** to track the open question.  
⚡ **Use .map()** to dynamically generate FAQ items.  
⚡ **Ensure only one question is open at a time.**  
⚡ **Apply CSS animations** for smooth transitions.  
⚡ **Use a properly formatted JSON file (faqs.json).**

**Future Enhancements**

✨ **Fetch FAQs from an API** instead of using a static JSON file.  
✨ **Add search functionality** to filter FAQs dynamically.  
✨ **Expand multiple FAQs simultaneously** (optional setting).  
✨ **Keyboard Accessibility** – Enable arrow keys for navigation.

**Conclusion**

The **FAQ Accordion Component** is an efficient and user-friendly solution for organizing frequently asked questions. It ensures **better readability, structured content, and enhanced user experience**.