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St.MOTHER THERESA ENGINEERING COLLEGE

COMPUTER SCIENCE ENGINEERING

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Completed the project named as

Phase 2

FRONT END TECHNOLOGY
Blog Site with Comment Section

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Phase 2 — Solution Design & Architecture

- **Tech Stack Selection:**
  - **Frontend**: ReactJS, TailwindCSS / CSS Modules
  - **State Management**: React Hooks (useState, useEffect), Context API
  - **Backend (Future)**: Node.js + Express (for REST APIs)
  - **Database (Future)**: MongoDB / Firebase

UI Structure / API Schema Design:

- **UI Components**:
  - ChatApp (root)
  - Sidebar (users list)
  - ChatWindow (messages area)
  - MessageInput (text input + send button)
  - MessageBubble (individual message)

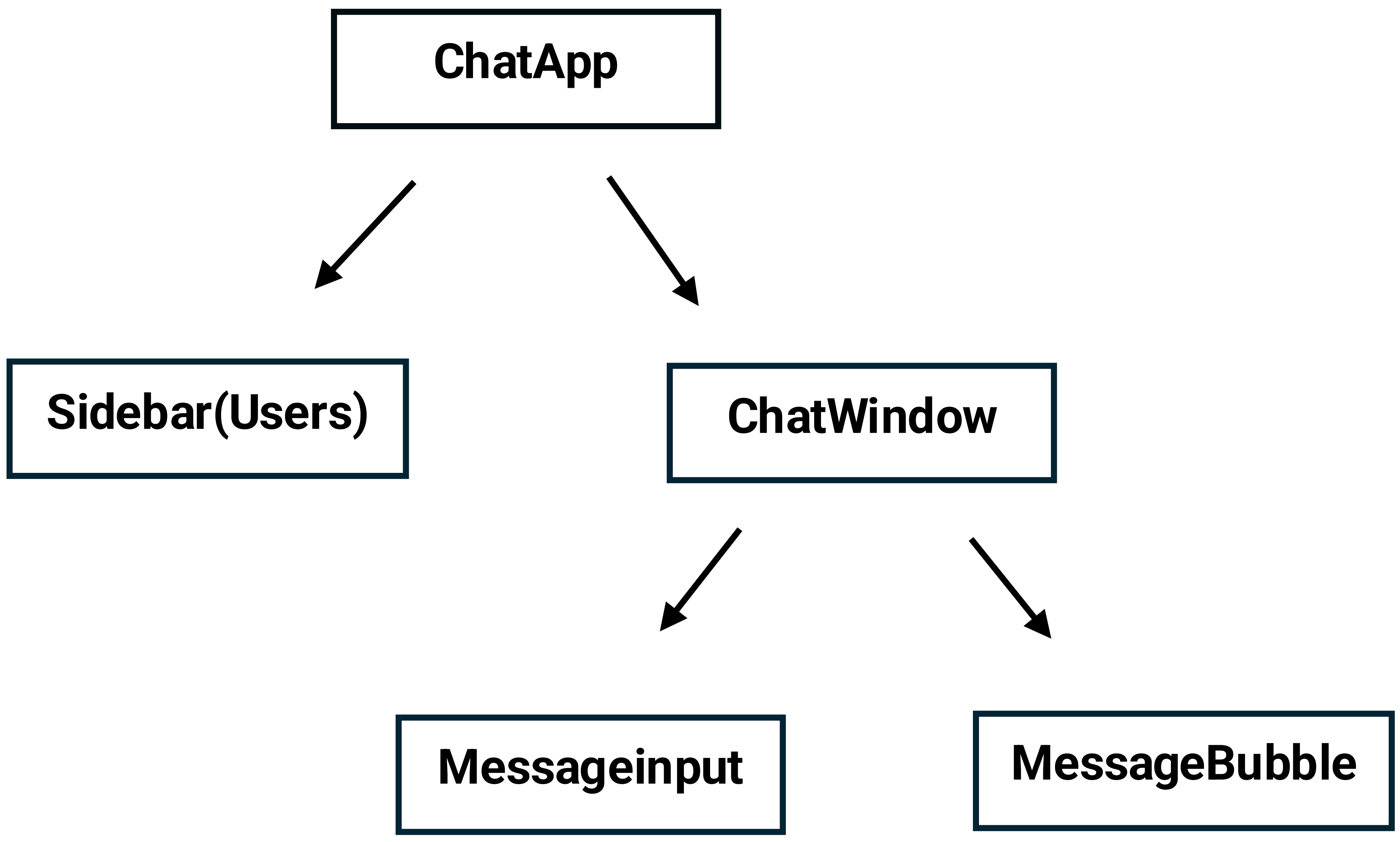
API Schema (future):

```
{
  "messageId": "123",
  "sender": "User1",
  "text": "Hello!",
  "timestamp": "2025-09-13T12:00:00Z"
}
```

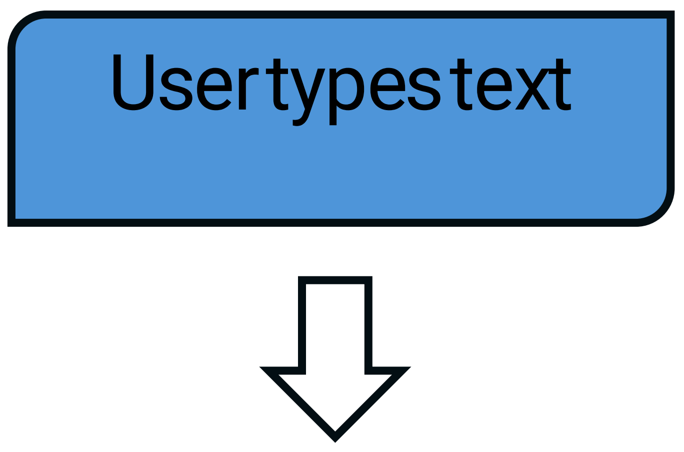
Data Handling Approach:

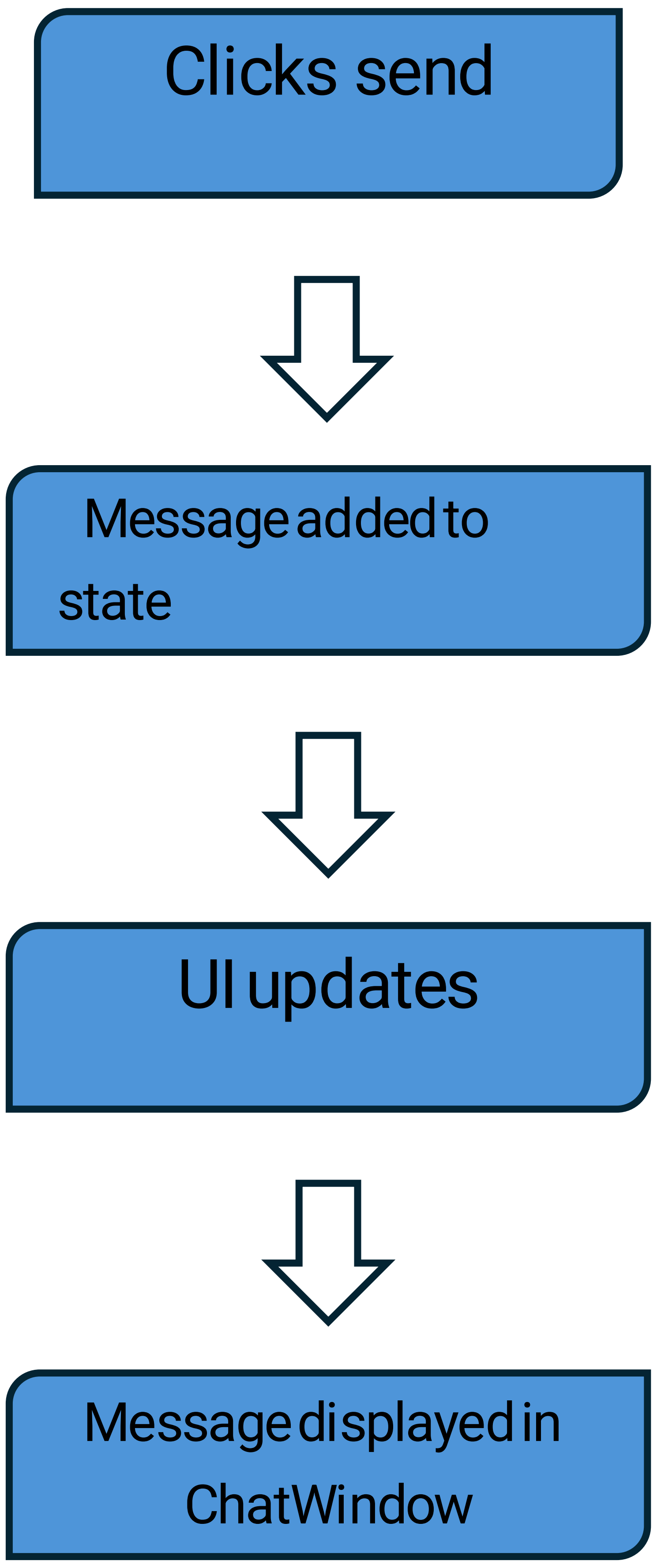
- Store messages in local React state (array of objects).
- On new message → update state → re-render chat window.
- Future: integrate with backend API.

Component / Module Diagram:



Basic Flow Diagram:




Clicks send
Message added to state
UI updates
Message displayed in ChatWindow