**Phase 1: Research**

**The goal of this phase was to decide the tools and architecture for building a synchronized Notes App.**

**Frontend: React was chosen for its dynamic UI and component structure.**

**Backend: Node.js with Express for handling RESTful APIs.**

**Communication: Axios handles HTTP requests; REST API endpoints (GET, POST, DELETE) support full CRUD.**

**State Management: React hooks (useState, useEffect) manage frontend state.**

**CORS Handling: cors middleware enables communication between frontend and backend on different ports.**

**Optimistic UI: UI updates immediately on user actions, improving responsiveness.**

**✅ Output: A clear tech stack and synchronization strategy were defined.**