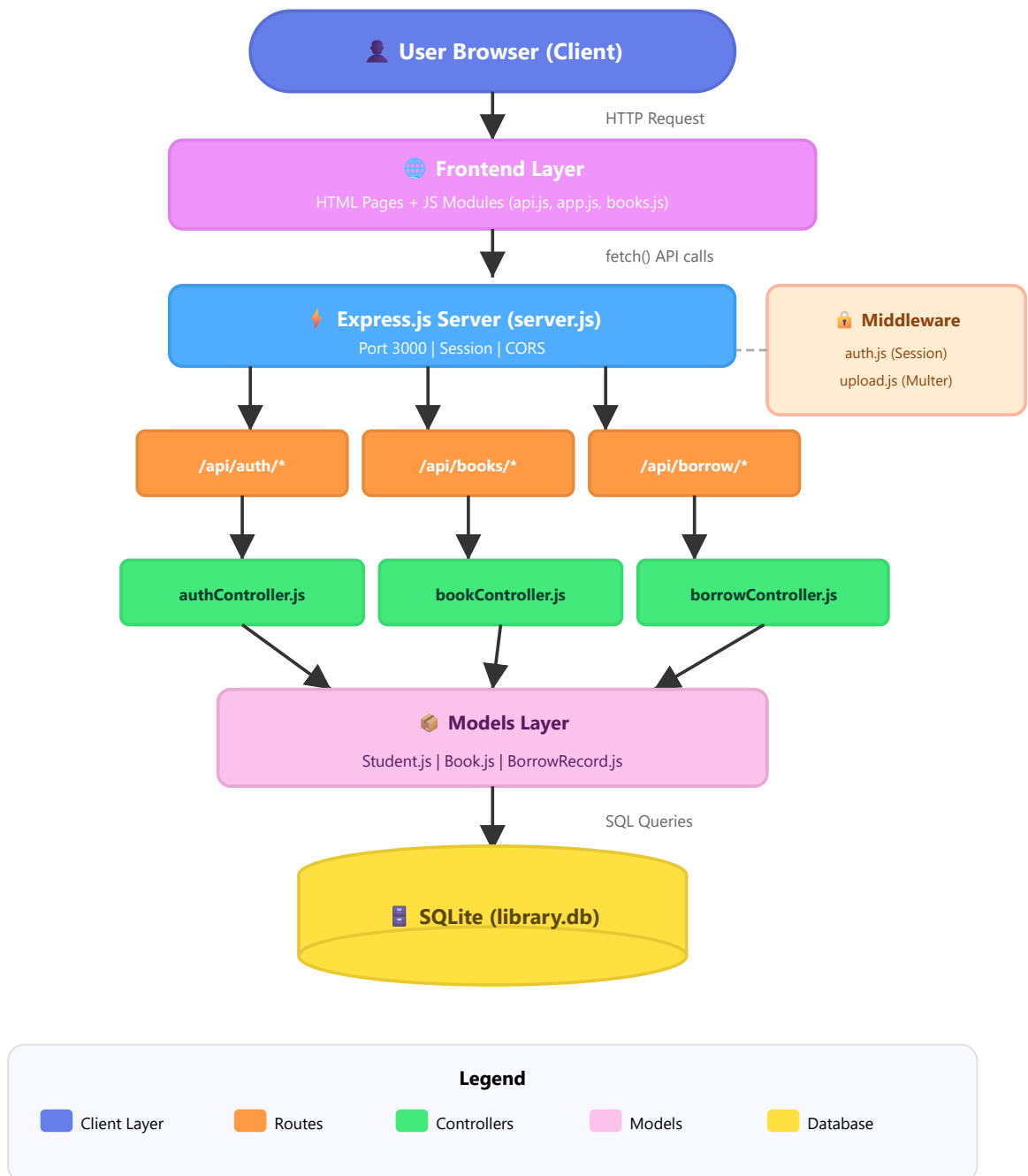




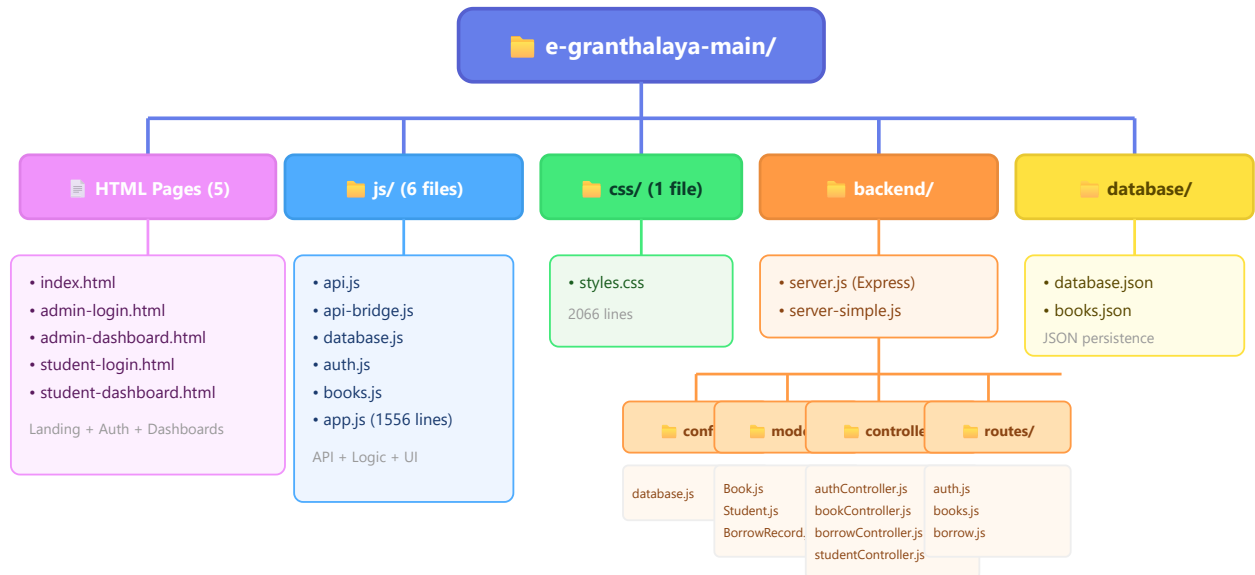
e-Granthalaya — Flowcharts & Diagrams

Project Architecture, Folder Structure & Loop Analysis

1. Project Architecture Flowchart



2. Folder & File Structure Diagram



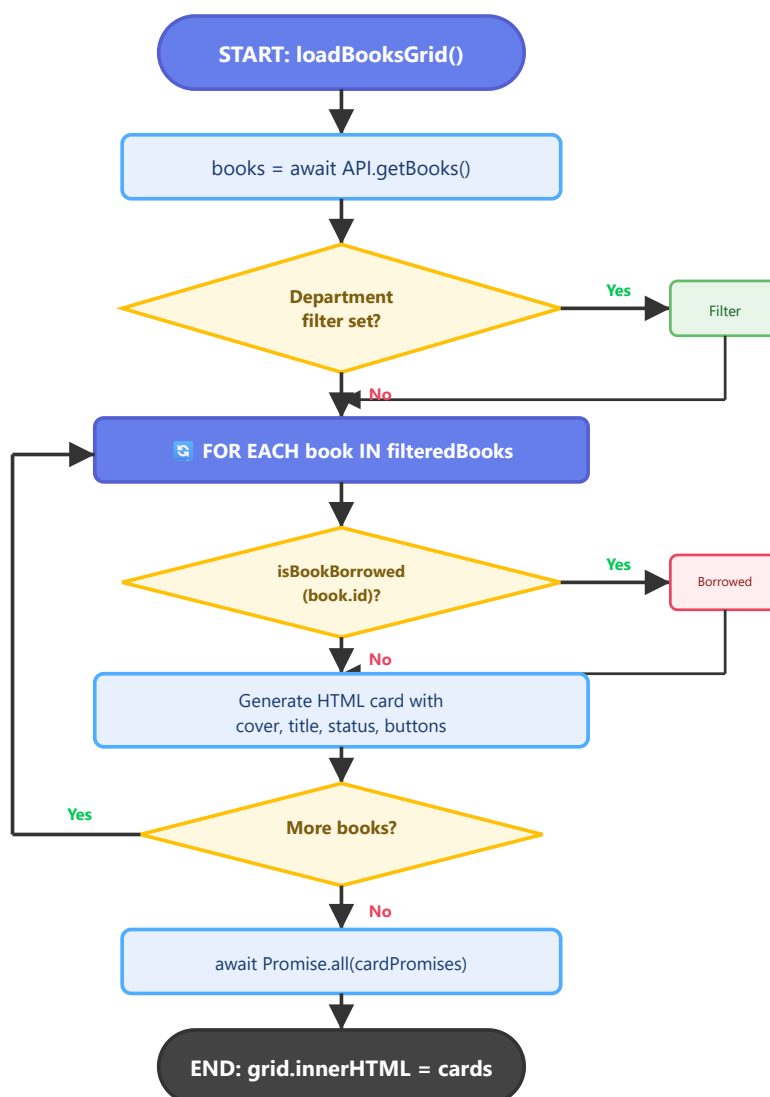
 **Total: 37 Files | ~7,100 Lines of Code | ~350KB**

5 HTML | 6 JS | 1 CSS | 2 Servers | 3 Models | 4 Controllers | 4 Routes | 2 JSON

3. Loop Flowcharts

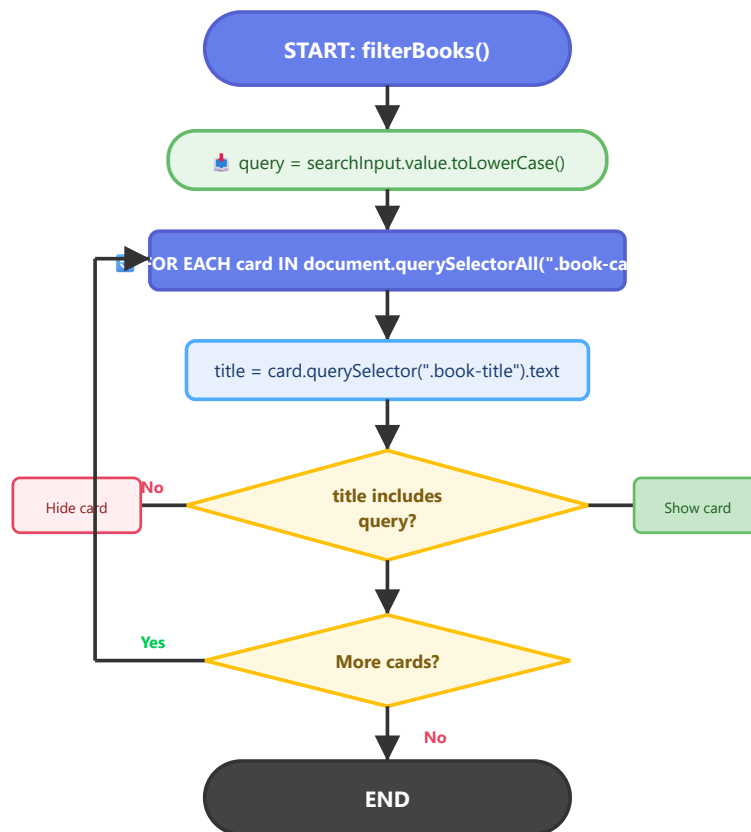
3.1 loadBooksGrid() — Book Rendering Loop

File: js/app.js | **Loop Type:** FOR EACH with Promise.all()



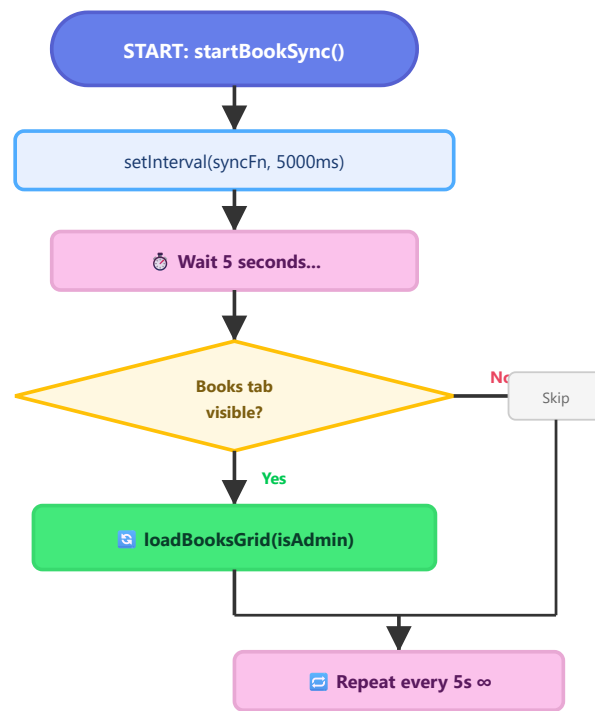
3.2 filterBooks() — Search Filter Loop

File: js/app.js | **Loop Type:** FOR EACH (DOM iteration)



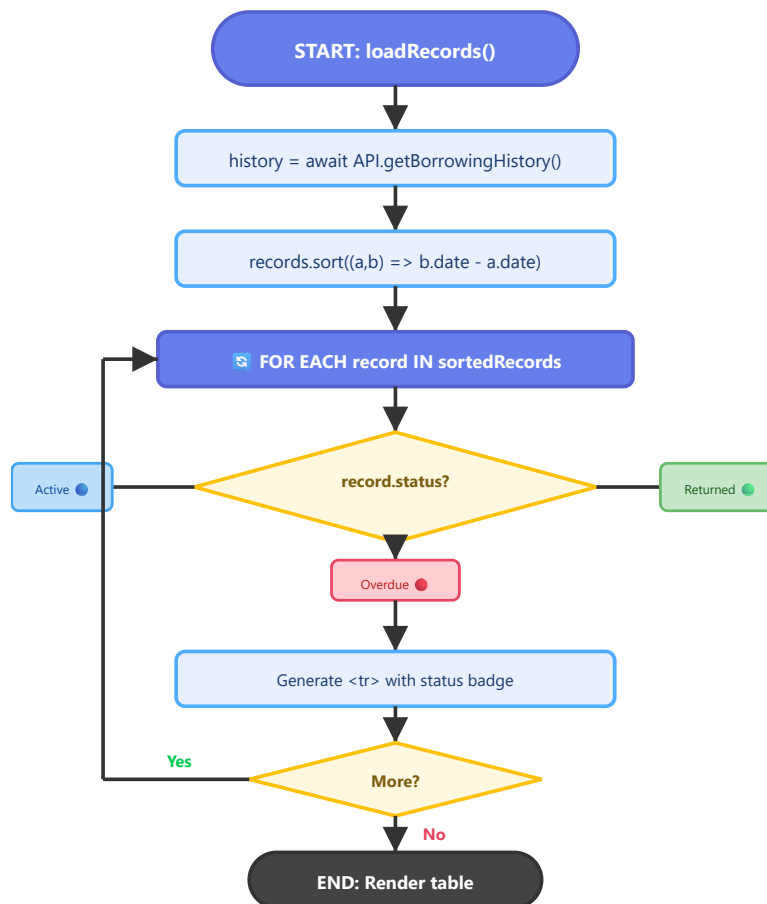
3.3 Auto-Sync Loop (api-bridge.js)

File: js/api-bridge.js | **Loop Type:** setInterval (every 5 seconds)



3.4 loadBorrowingRecords() — Table Rendering Loop

File: js/app.js | **Loop Type:** forEach + sort



3.5 IndexedDB Schema Creation Loop

File: js/database.js | **Loop Type:** Sequential store creation in onupgradeneeded

