

## Subash's 23-Day DSA + Project Preparation Plan (July 8 – July 31)

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### Daily Time Split

- **DSA Learning + Practice:** 2 to 2.5 hours/day
  - **Job Portal Project:** 1 to 1.5 hours/day
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### Week 1: July 8 – 14

**Goal:** DSA Foundations + Project Backend Modules

Day	DSA Focus	Project Focus
D1 (Today)	Arrays Basics + 3 problems	Setup email service (Spring Boot + JavaMail)
D2	Arrays Advanced (Kadane's, Prefix)	Job Posting Module – Controller + Service
D3	Strings (reverse, palin, freq map)	Apply Job Feature – Entity + API
D4	HashMap/HashSet (Freq, Anagrams)	Add Swagger + Improve Validation
D5	Two Pointers + Sliding Window	Add Email sending flow on Apply Job
D6	Binary Search (intro + 2 problems)	Flyway migration setup
D7	Binary Search (advanced + problems)	Unit test for User + JobService

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### Week 2: July 15 – 21

**Goal:** Data Structures & Key Patterns + Final Project Integration

Day	DSA Focus	Project Focus
D8	Recursion (factorial, subsets)	Integration Testing + Postman Testing
D9	Backtracking (N-Queen/Subsets II)	Exception Handling + Global Error Controller
D10	Linked List (reverse, cycle detect)	Project README + GitHub push
D11	Stack/Queue (next greater, validate)	CI/CD Prep (optional if time permits)
D12	Trees (DFS/BFS + level traversal)	Final Testing + Polish Codebase
D13	Trees (Height, LCA)	Buffer day: Wrap any pending modules
D14	Heaps (Top K, Priority Queue logic)	Resume update with Project section

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### Week 3: July 22 – 28

**Goal:** Graphs + Greedy + Mock Prep Begins

Day	DSA Focus	Project Focus
D15	Graphs (BFS, DFS)	Project Deployment Notes
D16	Graphs (Cycle, Topo Sort)	Start basic system design notes
D17	Greedy (Interval, Jump Game)	System Design: Job Portal (LLD)
D18	Basic DP (Fibo, Climb stairs)	System Design: Auth, Email
D19	Knapsack-style DP	Project Pitch Prep (resume + verbal)
D20	10 Mixed DSA Problems	Polish code + remove logs
D21	Mock Interview Simulation	Final Revision & Note Cleanup

### **Final 3 Days (July 29 – 31)**

Day	Focus
D22	Mock Interview 2 + Resume DSA Section Polishing
D23	System Design (URL Shortener, Rate Limiter – basic LLD)
D24	Final Dry Run – DSA + System Design + STAR stories

### **Final Outcome**

- 65–80 DSA problems solved
- Mastered 10+ high-yield DSA topics
- Job Portal Project complete with Spring Boot + PostgreSQL
- Resume-ready with mock prep + system design basics
- Confident to attend product-based company interviews