Paths to Learn

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DSA -> System Design -> Resume Java, DBMS

DSA :
Coding Decoded, Algorithms Made Easy

- Design Patterns,
- C++, Modern C++
- UML
- OOPS
  - OOPS CheatSheet
- Solid Design Principle
- System Design :
  - System Design Playlist

DSA/Coding :

- Grind 75 Questions : https://www.techinterviewhandbook.org/grind75
- Amazon Final Interview Questions : https://leetcode.com/discuss/interview-question/488887/Amazon-Final-Interview-Questions-or-SDE1
- Blind 75, Grind 75, Grind 169, Neetcode 150 and SQL 45 : https://leetcode.com/discuss/general-discussion/3691891/Leetcode-Lists-for-Blind-75-Grind-75-Grind-169-Neetcode-150-and-SQL-45
- Top 10 DS Interview Questions : https://www.crio.do/blog/data-structures-interview-questions/
- DSA Beginner : https://github.com/SagarKumar04/December-2021-Beginner-DSA
- A2Z DSA Sheet : https://github.com/ManishK4514/Strivers-A2Z-DSA-Sheet/tree/main
- Low Level Design of Splitwise : https://leetcode.com/discuss/study-guide/2154270/low-level-design-of-splitwise

Java Backend Development (References) :

- Backend Developer Roadmap
- Core Java LinkedIn Path
- Java Collections Frameworks

- Twitter : Java Backend Development
- 1) Core Java (Done)
  - Java Programming Tutorial (YouTube Playlist)
  - Github : Java Tutorial for Beginners Crash Course
- 2) JDBC
- 3) MySQL
- 4) JSP + Servlet (-> Maven -> Design Pattern)
- 5.1) Core Spring Framework
- 5.2) spring REST & spring DATA
- 5.3) Spring Security
- 6) Hibernate Framework
- 7) Spring Boot
- 8.1) Learn to Use AWS & Deploy Java Apps
- 8.2) Learn Basic Docker
- 8.3) Learn Basic Kubernetes
- 8.4) Deploy Spring Boot App on Kubernetes

Topic wise patterns on Leetcode:

- Strings : https://leetcode.com/discuss/study-guide/1333049/Collections-of-string-questions-pattern-for-upcoming-placement-2021
- Dynamic Programming (DP) : https://leetcode.com/discuss/general-discussion/662866/dp-for-beginners-problems-patterns-sample-solutions
- Binary Search : https://leetcode.com/discuss/general-discussion/691825/Binary-Search-for-Beginners-Problems-or-Patterns-or-Sample-solutions
- Greedy : https://leetcode.com/discuss/general-discussion/669996/greedy-for-beginners-problems-sample-solutions
- Graph : https://leetcode.com/discuss/general-discussion/655708/graph-for-beginners-problems-pattern-sample-solutions/
- DP for Beginners [Problems | Patterns | Sample Solutions] : https://leetcode.com/discuss/general-discussion/662866/Dynamic-Programming-for-Practice-Problems-Patterns-and-Sample-Solutions

Coding / Problem Solving Tricks

If input array is sorted then
- Binary search
- Two pointers

If asked for all permutations/subsets then
- Backtracking

If given a tree/graph then
- DFS
- BFS

If given a linked list then
- Two pointers

If recursion is banned then
- Stack

If must solve in-place then
- Swap corresponding values
- Store one or more different values in the same pointer

If asked for maximum/minmum subarray/subset/options then
- Dynamic programming

If asked for top/least K items then
- Heap
- QuickSelect

If asked for common strings then
- Map
- Trie

Else

- Map/Set for O(1) time & O(n) space
- Sort input for O(nlogn) time and O(1) space