

(NOTE: Try to complete all the questions mentioned in pdf shared)

Topics which need to be covered for Coding:

1. Arrays
2. Strings
3. LinkedList
4. Stack and Queues
5. Searching + Sorting
6. Heaps and Hashing
7. Trees
8. Recursion + BackTracking
9. Dynamic Programming
10. Greedy
11. Graphs

### **1. Arrays (Do 30-40 questions) (4-days)**

Imp topics for arrays are:

- a. Sliding Window

<https://leetcode.com/problems/find-all-anagrams-in-a-string/discuss/92007/sliding-window-algorithm-template-to-solve-all-the-leetcode-substring-search-problem>

<https://leetcode.com/discuss/general-discussion/657507/sliding-window-for-beginners-problems-template-sample-solutions/>

- b. Two pointer

<https://leetcode.com/list/xlem03mm/>

- c. Mathematical Questions

### **2. Strings (Do 15-20 questions) (2-days)**

For string try to do interviewbit and after that if want more for practice can opt for this <https://leetcode.com/list/xvhhh89c/>

### **3. LinkedList (Do 10-15 questions) (2-days)**

Solve all question mentioned in pdf and later Can complete the following questions given in list (Some might be repetitive):

<https://leetcode.com/list/xlerlepr/>

<https://leetcode.com/list/xler4hke/>

#### 4. Stacks and Queues (Do 15-20 questions) (3 days)

Complete the questions mentioned in pdf and if you think you are weak in that topic can solve other questions from InterviewBit.

If you feel weak in the stack topic can watch the following video in 2x speed:

[https://youtube.com/playlist?list=PL\\_z\\_8CaSLPWdeOezg68SKkeLN4-T\\_jNHd](https://youtube.com/playlist?list=PL_z_8CaSLPWdeOezg68SKkeLN4-T_jNHd)

Useful links:

<https://leetcode.com/problems/sum-of-subarray-minimums/discuss/178876/stack-solution-with-very-detailed-explanation-step-by-step>

<https://leetcode.com/problems/shortest-subarray-with-sum-at-least-k/discuss/204290/Monotonic-Queue-Summary>

#### 5. Searching and Sorting (Do 15-20 questions) (4 days)

Need to know all sorting algos very clearly with their time complexity, especially Merge Sort and Quick sort algos very clearly

**Binary Search is MOST IMP concept.**

Refer this resources:

<https://leetcode.com/problems/binary-search/discuss/423162/Binary-Search-101-The-Ultimate-Binary-Search-Handbook>

<https://leetcode.com/discuss/general-discussion/691825/binary-search-for-beginners-problems-patterns-sample-solutions>

Solve all this questions in given list: <https://leetcode.com/list/xcrx4mxm/>

Only if you feel you are not able to solve the binary search questions after going through the mentioned resources can watch this video in 2x speed:

[https://youtube.com/playlist?list=PL\\_z\\_8CaSLPWeYfhtuKHj-9MpYb6XQJ\\_f2](https://youtube.com/playlist?list=PL_z_8CaSLPWeYfhtuKHj-9MpYb6XQJ_f2)

#### 6. Heaps and Hashing(Do 10 questions) (2 days)

Practice it from InterviewBit.

(<https://www.interviewbit.com/courses/programming/topics/hashing/>)

If you are not confident can watch this in 2x speed:

[https://youtube.com/playlist?list=PL\\_z\\_8CaSLPWdtY9W22VjnPxG30CXN](https://youtube.com/playlist?list=PL_z_8CaSLPWdtY9W22VjnPxG30CXN)

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## **7. Trees (4th July) (Do 20-25 questions) (4-days)**

Complete all questions from the given pdf.

Still if you think you need practice can solve more questions from interviewBit.

## **8. Recursion and Backtracking (8th July)(Do 15-18 questions) (4 days)**

Watch the video and gain understanding of the concepts, it will help you in dynamic programming.

[https://youtube.com/playlist?list=PL\\_z\\_8CaSLPWeT1ffjilmo0sYTcnLzo-wY](https://youtube.com/playlist?list=PL_z_8CaSLPWeT1ffjilmo0sYTcnLzo-wY)

Good article to read:

[https://leetcode.com/problems/permutations/discuss/18239/A-general-approach-to-backtracking-questions-in-Java-\(Subsets-Permutations-Combination-Sum-Palindrome-Partitioning\)](https://leetcode.com/problems/permutations/discuss/18239/A-general-approach-to-backtracking-questions-in-Java-(Subsets-Permutations-Combination-Sum-Palindrome-Partitioning))

Solve this: <https://leetcode.com/list/xlere2g3/>

## **9. Dynamic Programming (12th July)(Solve as much as you can!) (3 days)**

Do watch all the videos can do 2x speed, but also try to solve it on your own.

[https://www.youtube.com/playlist?list=PL\\_z\\_8CaSLPWekqhdCPmFohncHwz8TY2Go](https://www.youtube.com/playlist?list=PL_z_8CaSLPWekqhdCPmFohncHwz8TY2Go)

[https://www.youtube.com/playlist?list=PL\\_z\\_8CaSLPWfxJPz2-YKqL9gXWdgrhvdn](https://www.youtube.com/playlist?list=PL_z_8CaSLPWfxJPz2-YKqL9gXWdgrhvdn)

If you have time and feel confident for other topics, please go through this wonderful articles:

<https://leetcode.com/discuss/general-discussion/662866/dp-for-beginners-problems-patterns-sample-solutions>

<https://leetcode.com/discuss/general-discussion/458695/dynamic-programming-patterns>

<https://leetcode.com/discuss/general-discussion/651719/how-to-solve-dp-string-template-and-4-steps-to-be-followed>

<https://leetcode.com/discuss/general-discussion/1000929/solved-all-dynamic-programming-dp-problems-in-7-months>

#### **10. Greedy(16th July ) (5-10 questions) (1-day)**

Complete all the questions from interviewbit.

Good articles to follow:

<https://leetcode.com/discuss/general-discussion/1061059/ABCs-of-Greedy>

Can solve some questions from each category:

<https://leetcode.com/discuss/general-discussion/669996/greedy-for-beginners-problems-sample-solutions>

#### **11. Graphs(17th ) (Solve as much as you can!) (4-days)**

Can watch this graph series to start with at 2x speed:

<https://www.youtube.com/playlist?list=PLgUwDviBlf0rGEWe64KWas0Nryn7SCRWw>

Excellent series on graphs:

<https://www.hackerearth.com/practice/algorithms/graphs/graph-representation/tutorial/>

**Some useful links:**

<https://leetcode.com/discuss/general-discussion/655708/graph-for-beginners-problems-pattern-sample-solutions/>

<https://leetcode.com/discuss/general-discussion/969327/graph-algorithms-one-place-dijkstra-bellman-ford-floyd-warshall-prims-kruskals-dsu>

## 12. Miscellaneous(--)

**TOUCH THIS SECTION ONLY WHEN YOU COMPLETE ALL THE ABOVE MENTIONED TOPICS**

### A. Tries:

<https://leetcode.com/discuss/general-discussion/680706/article-on-trie-general-template-and-list-of-problems>

<https://leetcode.com/discuss/general-discussion/1066206/introduction-to-trie>

### B. Bit Manipulation:

<https://leetcode.com/discuss/general-discussion/1073221/All-about-Bitwise-Operations-Beginner-Intermediate>

<https://leetcode.com/problems/sum-of-two-integers/discuss/84278/A-summary%3A-how-to-use-bit-manipulation-to-solve-problems-easily-and-efficiently>

### C. System Design:

<https://leetcode.com/discuss/career/229177/My-System-Design-Template>

<https://youtube.com/playlist?list=PLMCXHnjXnTnvo6alSjVkgxV-VH6EPyvoX>

## 13. Technical Subjects:

**(26th July)**

OOPS should be done first. Can refer to my notes which were shared.

OS should be done next.

Now it boils down to your choice of subject mentioned in resume.

Useful link:

<https://leetcode.com/discuss/interview-question/762059/Most-important-subjective-topics-for-technical-interview>

## 14. Other:

<https://techinterviewhandbook.org/algorithms/algorithms-introduction/>

Can Prepare company specific questions:

<https://www.geeksforgeeks.org/must-coding-questions-company-wise/>