

# **DSA RESOURCES**

## **Syllabus**

### **Basic Topics:**

- 1) Arrays, Strings, Basic Math
- 2) Searching and Sorting
- 3) Sliding Window, Two Pointers
- 4) Linked List, Binary Trees
- 5) Stacks, Heaps, Queue
- 6) Bit Manipulation

### **Important Topics (frequently asked):**

- 7) Trees
- 8) Graphs
- 9) Dynamic Programming
- 10) Binary search (binary search on answer)

### **Rare Topics:**

- 11) Segment tree
- 12) Tries

## **Resources**

10-week plan

- [https://drive.google.com/drive/folders/1FJx6MUxMu-zWmxZoioSzu577zO\\_qW22](https://drive.google.com/drive/folders/1FJx6MUxMu-zWmxZoioSzu577zO_qW22)
- Contains problems on various difficulty levels, on all topics.

Cses Handbook (Competitive Programming Guide)

- <https://cses.fi/book/book.pdf> Beginner-friendly explanations to various topics
- <https://cses.fi/problemset/> Contains practice problems from the above book.

Striver CP Sheet

- <https://takeuforward.org/interview-experience/strivers-cp-sheet>

Neetcode

- <https://neetcode.io/> Consists of video tutorials for many Leetcode problems

## **Extra Resources**

DSA Sheet

- <https://drive.google.com/file/d/1j9yiZRq1znuOd8bxKtlr--DufD8nAfSe/view?usp=sharing> Compressed version of important Leetcode problems

### Cracking the coding interview

- <https://drive.google.com/file/d/1ottTiydQ8Du9dcOuMmbC3fHmBrd8PqID/view?usp=sharing>
- The document provides valuable tips for preparing effectively for a DSA interview.

### OT questions of some companies in the previous years

- <https://codeforces.com/group/S8BjHjc2Nm/contests>

### Codeforces Practice Problems (Rating-wise filtered)

- <https://c2-ladders-juol.onrender.com/>

### STL Resources

- <https://www.youtube.com/playlist?list=PLk6CEY9XxSIA-xo3HRYC3M0Aitzdut7AA>
- [https://drive.google.com/file/d/1c8vV-\\_cYMt-tz9vilbjK6i9skPRh3f\\_R/view?usp=sharing](https://drive.google.com/file/d/1c8vV-_cYMt-tz9vilbjK6i9skPRh3f_R/view?usp=sharing)

## **General Tips For Preparation**

- Practice more medium and hard-level problems. Solving only easy problems will not significantly improve your problem-solving skills.
- Participate in more contests on platforms like LeetCode, CodeChef, and Codeforces. Competing in a timed environment will enhance your performance during Online Tests for companies.
- Spend up to 1 hour on a tough problem. If you're stuck, read the editorial or hints line by line and then reattempt the problem instead of reading the full solution directly.
- Maintain a ratio of problems solved on LeetCode as easy:medium:hard = 1:2:1
- During a DSA interview, ensure you properly convey your thought process to the interviewer and follow all the hints to reach the solution.

## **Online Contests Schedule:**

Leetcode <https://leetcode.com/>

- Weekly contests on every Sunday 8:00 am - 9:30 am
- Biweekly contests (twice a month) 8:00 pm - 9:30 pm

Geeksforgeeks <https://www.geeksforgeeks.org/>

- Weekly contest on every Sunday 7:00 pm - 8:30 pm

Other CP Platforms to explore:

- Atcoder <https://atcoder.jp/> Saturday 5 pm - 7:30 pm
- CodeChef <https://www.codechef.com/> Wednesday 8:00 pm - 10:00 pm
- Codeforces <https://codeforces.com/> Weekly one or two contests 8:05 pm - 10:05 pm