Codess_™ •Cafe

DSA 101 + Technical Interview Tips



Timeline

Crucial Months

- May, June, July, August

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Targets to hit before placement season

- Getting good grip on DSA
- Strengthening CS Core fundamentals
- Mock Interviews



Beginners

Free/Cheap courses to learn basic programming

- 1. Cpp:
 - https://www.udemy.com/course/cpp-data-structures-algorithms-prateek-nar ang/
- 2. Java: https://www.pepcoding.com/resources/
- 3. Python:
 - https://youtube.com/playlist?list=PLSzsOkUDsvdvGZ2fXGizY_Iz9j8-ZlLqh



Intermediate

SDE sheets to practice basic concepts along with tutorials

- 1. <u>Striver Sheet</u>
- 2. Love Babbar Sheet



Resources for practicing questions

- 1. Interviewbit
- 2. Leetcode for structured problem solving
- 3. LeetCode biweekly and Weekly Contests
- 4. Codechef / CodeForces Contests



DSA Book for reference

- 1. Coding Interview Questions By Narasimha Karumanchi
- 2. Topic wise resources DSA Resources



Core CS Resources

COMPUTER NETWORKS

Youtube- https://youtube.com/playlist?list=PLxCzCOWd7aiGFBD2-2joCpWOLUrDLvVV_

DBMS

Youtube-

https://www.youtube.com/playlist?list=PLmXKhU9FNesR1rSES7oLdJaNFgmuj0SYV Notes- https://lecturenotes.in/l/ap01095536

OOPS Object Oriented Programming (1).pdf

• Operating System

Youtube-https://youtube.com/playlist?list=PLmXKhU9FNesSFvj6gASuWmQd23Ul5omtD Drive- Operating System Notes.pdf GFG- https://www.geeksforgeeks.org/operating-systems/



Flow of interview

- Introduction about yourself- keep it short and crisp
- DSA questions make sure to ask about constraints
- time and space complexity
- move from brute force to optimised code
- CS Fundamentals
- HR type questions, behavioural- mostly revolves around you, time management, teamwork and strategic planning
- Question for interviewer Prepare 1-2 questions in advance by researching about the company.



Interview prep material

https://leetcode.com/problem-list/top-interview-questions/

https://leetcode.com/problem-list/top-100-liked-questions/



Questions Related to Projects

https://www.coursera.org/articles/project-management-interview-questions

Projects could be mainly on- for technical domain

- Web Development
- Android Development
- Blockchain and Web 3
- Al/ ML domain

•Cafe

Note

- Revise thoroughly the tech stacks
- Remember the Schema
- Be prepared for open ended questions
- Might discuss about scalability
- Don't fake things



Behavioral Questions

- If you are a good fit to the company
- Time management tactics
- Teamwork and coordination among peers
- Hypothetical Questions about some situation and impact
- Leadership related stuffs
- Based on company's values

Behavioural Questions list-

https://novoresume.com/career-blog/behavioral-interview-questions



Pre Interview Prep

- Give Mock interviews on Pramp and Interviewbit
- Research a bit about the company
- Do read the resume beforehand
- Practice for Behavioural questions
- Read interview experience on GFG/ Leetcode (recent ones)
- If you use standard libraries in code, make sure to know its complexities and implementation



During Interview

- Ask clarifying questions
- Ensure you have understood the question correctly
- Create 2-3 sample test cases on your own and verify the above point
- Start with brute force and then optimize
- Ask for hints if stuck
- Start with brute force and optimize
- Do not change the input types eg: try working with the data in the format it is given.



During Interview

- Be vocal. Your thought process matters
- Start writing code only when you get the green signal from interviewer
- While writing code, keep explaining it
- Do not beat around the bush if you don't know the answer.
- Always mention TC and SC at the end irrespective of whether the interviewer has asked for it or not
- Always ask questions at the end



Finding Opportunities

- Be active on LinkedIn and add people from companies you wish to join
- Follow people who posts about jobs on linkedin like Arsh goyal & Kushal
 Vijay
- Regularly check Linkedin jobs, telegram job groups and company websites
- Mentro Platform where jobs are posted
- Unstop Platform with competitions for job opportunities



Referrals

- Referrals increase the chances to get interviews
- Good linkedin profile is important (details) (Sample profile), connections
- Template to reach out to the point message
 - Intro(1-2 lines), achievements(2-3), link of role, hoping to hear back , thanks, resume
 - (Very less people reply)
- Reach out to college seniors first



IMP NOTE

Whenever you are sharing your resume with anyone for review/referral ensure that you are

sending them a

have view permissions.

and not a PDF copy. Also ensure that they



Pro Tip

Have a folder on your local to track the versions of your resume and keep a note of which version are you sending to which company



Applying to international opportunities

- Why to apply: less competition, easier interviews, international exposure
- Where (eligibility): visa requirements
 - Can't apply directly in US, Australia
 - o Can UK, Singapore, Germany, Japan
- How: MAANG or other top companies websites
- Even many startups provide such exposure and opportunities
- PPP (purchasing power parity): do make sure compensation is good enough against the expenses there
- Do research about process/interviews



Indirect Job Opportunities

- What are they programs, hackathons, scholarships-
- (Google STEP, DESIS Ascend, Adobe WIT, Facebook Hacker cup, Microsoft Engage)
- Be actively involved, performance matters
- Be curious, ask a lot of questions



- C++ free course from basics to advanced DSA by Aman Dhattarwal (Apna college):
 https://www.youtube.com/playlist?list=PLfqMhTWNBTe0b2nM6JHVCnAkhQRGiZMSJ
- DSA One course (free) by Anuj Bhaiya (using Java/C++):
 https://www.youtube.com/playlist?list=PLUcsbZa0qzu3yNzzAxgvSgRobdUUJvz7p
- DSA in Java from basics from Apna college (free):
 https://www.youtube.com/playlist?list=PLfqMhTWNBTe3LtFWcvwpqTkUSlB32kJop
- Technical mock interviews from Keerti Purswani, especially for first-time interviewees: https://www.youtube.com/playlist?list=PLliXPok7Zonn3pcQp2TzNYnlKq1jPoLM8



- Top OOPs interview questions (for revision):
 https://www.interviewbit.com/oops-interview-questions/
- Top OS interview questions (for revision):
 https://www.interviewbit.com/operating-system-interview-questions/

https://www.geeksforgeeks.org/commonly-asked-operating-systems-interview-questions/

 Top DBMS and SQL interview questions (for revision): https://www.interviewbit.com/dbms-interview-questions/

https://www.interviewbit.com/sql-interview-questions/



- Top Computer Networks interview questions (for revision): https://www.interviewbit.com/networking-interview-questions/
 - https://www.geeksforgeeks.org/top-50-computer-networking-interview-questions-and-answers/
- Space and time complexity of C++ STL containers along with their implementation, candidates often ignore that and that causes issues during interviews:

https://www-geeksforgeeks-org.cdn.ampproject.org/v/s/www.geeksforgeeks.org/a nalysis-of-time-and-space-complexity-of-stl-containers/amp/?usqp=mq331AQKK AFQArABIIACAw%3D%3D&_js_v=a6&_gsa=1#referrer=https%3A%2F %2Fwww.google.com&csi=0&share=https%3A%2F%2Fwww.geeksforgeeks.

org%2Fanalysis-of-time-and-space-complexity-of-stl-containers%2F



- 1) Java collections framework in one video by Anuj Bhaiya (prerequisite: Java basics): https://www.youtube.com/watch?v=rzA7UJ-hQn4
- UNIX and Shell programming https://www.sanfoundry.com/1000-unix-questions-answers/



System Design (Extra)

- Gaurav Sen:
 - https://www.youtube.com/watch?v=xpDnVSmNFX0&list=PLMCXHnjXn Tnvo6alSjVkgxV-VH6EPvvoX
- Keerti Purswani:

https://www.youtube.com/watch?v=T6n5PCYLSr0&list=PLliXPok7ZonnZd99TE0Zzn1MZlE4u08GW



Thank You!!

Rock the placement season ahead girl;)