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## Placement Roadmap

# From B.Tech First year to Final year By Utkarsh Seth

Ques Bhaiyaa, college ke placements kaise hote hai? kaise prepare krna hota hai? Abhi se karenge toh ho jayega kya? Krna toh hai bt kya aur kaise vo nahi pata?

If you're a first-year guy, you can relate with this.

Because this are some most commonly asked questions by freshies.

Ab mere seniors ne mujhe bahut jyada help ki hai.

Now its my turn.

Toh aaj na baithke is chij ko thik se sort krte hai.

So, if you're into your first year, ya fir end of the first year toh dhyan se suno.

Dekho, let's assume ye pura college and uska placement is like a Shooting Game. Ab yaha pe right time pe right chij karoge toh aage bahut jyada aasan hoga.

Toh let's assume ki abhi tum tumhare first year mai ho, and 1st sem khatam hone ko hai ya khatam hogaya hai. Means pura college achhe se dekh liye ho.

Ab college mai aane ke bad pehla phase hota hai ki hum sari chije explore krte hai, kuch settle hone mai time Igta hai and all.

Let's assume abhi tum settle ho, toh abhi sose pehli chij hame krni hai apna Weapon Selection.

Ab Softwares mai sbse important chij hoti hai coding. Toh sbse pehle ab tumhe ek acchi si programming language choose krni hai.

Ab dekho, is chij mai jyada time nahi lagana, kuch log kahenge C++ kro kuch kahenge Java kro.

But bhai dekh, sari programming language ki fundamentals same hoti hai, toh ye matter nahi karega ki konsi se start krna hai, but ha agr tum koi aisi language se start kro, jo likhne mai asan and aisi ho jo tumhe sare concepts sikhaye toh vo jyada beneficial hoga, and mainly ek bar tum koi programming language achhe sikh gaye acche se, toh dusri language sikhna tumhare liye hard part nahi hoga, max to max 1-2 weeks mai tum dusri language sikh skte ho. Toh abhi if you ask me, toh I'll suggest ki tum C se start kro, iske mainly ye reason hai ki ye syntactically aasan hai and ye tumhe sare core concepts sikhayega like memory management with pointers and all. Ab after C tumhe koi Object Oriented Language sikhni hogi toh you can prefer C++ or Java. Yaha pe mai suggest karunga ki go with Java, cause ye tumhe aane wali development journey mai kafi help karegi.

Ab ye toh ho gaya Weapon Selection. Ab tumne Gun toh choose krli, ise chalana bhi sikh liya.

Ab main dusri chij you need to Identify Your Target.

Ab yaha pe mainly tumhare tin targets hai:

- 1. DSA (Data Structures and Algoritms)
- 2. Development
- 3. CS Fundamental Subjects

Ab aisa kyu, toh dekho, jo tum 3rd year mai placement keliye baithoge toh uski process kuch aise hoti hai :

Most of the companies mai first round hota hai

Online Assessment, vaha pe tumhe DSA

Questions + CS Fundamental Subjects ke bare mai pucha jata hai. Agr ye nahi nikla toh tum interview nahi de skte.

Next hota hai Technical Interview Round yaha tumhe DSA + CS Fundamentals + Development ke bare mai pucha jata hai.

Then next hota hai HR round. (iska tension mt lo) kuch net pe se basic hr questions krke jana, toh ye ho jayega.

Ab ye tin targets ho one by one dekhte hai...

Sose pehla target aata hai DSA. Ab jo tum koi language mai acche se comfortable ho jao toh tumhe start krna hai DSA, ye ek subject hai jisme tum various types of Data Structures and algorithms ke bare mai sikhte ho. Ab is ko hume do phases mai krna hai, first phase tumhe sare Data Structures and Algorithms explore krne hai and unke bare mai achhe se padna hai ki what it is? how they work and all.

## Introduction to Data Structures

Week 1: Ready with the basics

- Day 1: Understand the significance of Data Structures and Algorithms (DSA).
- Day 2: Dive into arrays, their properties, and operations.
- Day 3: Explore linked lists, their types, and implementations.
- Day 4: Grasp the concepts of stacks and queues, along with their applications.
- Day 5: Get familiar with trees, including tree traversal techniques and binary trees.
- Day 6: Deepen your knowledge about binary search trees (BST) and their operations.
- Day 7: Learn the fundamentals of heaps, such as min-heaps and max-heaps.

Week 2: Advanced Data Structures and Sorting Algorithms

- Day 8: Study advanced trees like AVL trees and Red-Black trees.
- Day 9: Delve into hash tables and various collision resolution techniques.
- Day 10: Explore the world of graphs, graph representations, and basic graph algorithms.
- Day 11: Learn sorting algorithms (Bubble Sort, Insertion Sort, Selection Sort).
- Day 12: Master advanced sorting algorithms (Merge Sort, Ouick Sort).
- Day 13: Discover searching algorithms (Linear Search, Binary Search).
- Day 14: Apply your knowledge by implementing these data structures and algorithms.

Week 3: Algorithm Design and Problem Solving

- Day 15: Grasp dynamic programming and its core concepts.
- Day 16: Understand the magic of greedy algorithms and where to apply them.
- Day 17: Hone your problem-solving skills with practice on platforms like LeetCode and HackerRank.
- Day 18: Tackle more challenging problems, and analyze time and space complexities.
- Day 19: Continue solving complex problems, refining your skills.
- Day 20: Review what you've learned and address any weak areas.
- Day 21: Recap your journey, take mock tests, and prepare for coding interviews.

Solving problems regularly, reviewing concepts, and seeking help when needed will significantly improve your understanding and problem-solving abilities.

Toh lets assume ki abhi tumhare 1st year khatam ho chuka hai, your into your 3rd sem, ya fir ye kehlo ki 3rd sem bhi aadha ho chuka hai.

Ab jo tum apna pehla target identify krliye toh ab tumhe krni hai Firing Practice. Ye kaise karoge, toh dekho. DSA ke bohat sare questions hote hai, bohat sare aise online platforms hai jaise ki - Online Platforms:

**GFG** 

#### HackerRank

https://www.hackerrank.com/domains/data-structures Leetcode etc.

https://leetcode.com/problemset/

inpe tumhe DSA ke bohat se questions milenge jo difficulty wise hoge, konsi companies mai puche jate hai us hisab se hoge and all. Ab tumhe kya krna hai difficulty wise, mtlb pehle easy then medium and then hard is hisab se inhe solve krna hai.

Aur dekho bhai, to be honest, ye chij tumko continue krni hai jb tk tumhari job nahi lg jati. Yaha pe sbse important chij hai Consistency.

Toh dekho ab DSA toh ho gaya, ab next TARGET hai CS Fundamental Subjects jaise ki -

## Fundamental Subjects:

Database management system

https://youtube.com/playlist?

list=PLmXKhU9FNesR1rSES7oLdJaNFgmuiOSYV&si=2Vdp8kDXvnNA3Vrq

Operating System

https://voutube.com/playlist?

list=PLV8vIYTIdSnZ67NOObdXE0gFirzPrNKHp&si=l1Jt6IFOv1TWK\_9a\_

#### **OOPS**

https://youtube.com/playlist?

tist=PL9gnSGHSqcno1G3XjUbwzXHL8\_EttOuKk&si=sBNehlyYgJ\_Cd5yN

## Computer Networks

https://youtube.com/playlist?

list=PLmXKhU9FNesSjFbXSZGF8JF 4LVwwofCd&si=64e9k2DFIlnCnfgH

Ye basic subjects tumhe college mai bhi sikhaye jayenge, toh jb ye college mai chl rahe ho, usi time pe inhe achhe se pdh lena. (Malum hai college mai kuch nahi smjh aata, but bhai usi time pe atleast topic ka nam toh smjhega na, toh use YouTube pe dalke pad lena).

Ab dhyan se suno, tisra important target hai Development.

Ab ye hai kya? Toh bhai dekh, hum ye sb kr kyu rahe hai, toh bhai Software Engineer banne keliye , but ye software engineers krte kya hai?

Softwares banate hal.. Toh sose important chil.

DSA ke questions solve krne se sirf logic banega, software nahi..

Koi bhi software means ya toh hum koi Desktop Application bana rahe honge, ya fir koi Web Application, ya fir koi Android Application. Isme aati hai baki chije jaise ki Frontend, Backend.

Toh yaha pe ab tumhe firse, nayi guns choose krni hogi, tumhe decide krna hoga ki tumhe kya development krna sikhna hai, tumhe web sikhna hai, ya fir app sikhna hai, ya fir kuch aur.

Ye decide hone ke bad simply, net pe search kro, bohat se resources available hai, YouTube pe bhi bohat achhe achhe log padha rahe hai.

Pr bhaiya ye developement ko krna hai ab ? Toh bhai ise bhi tumhe parallely time dena hoga, tum ise start kr skte ho 2nd year mai. And see hume

3rd year mai jyada development nahi krni hai, hume bs 2nd year mai achhe achhe project banane hai and resume mai dalne hai. 3rd year mai hum sirf DSA practice kr rahe hoge.

Ab smjh lo ye sb hogaya, now your in your start of 3rd Year. Ab hame karna hai Profile Building.

Ab tumhe firing krni aagayi targets malum hai, but ab tumhe logo ko batana bhi toh hai ki mujhe kya kya aata hai. toh isliye hum krenge Profile Building , isme hum ek accha sa

Resume banayenge jisme ab tk ki sari skills, projects and achievements hogi, mere profile mai mera resume featured

Ab finally, start hota hai, The WAR Time.

Ab Third Year mai companies aayegi internships keliye, maine jaise bataye vaise rounds honge, ab agr tumhari abhi tk ki DSA practice (Firing practice) achhi hai, toh 1st round toh aaram se niklega, tumhara CS Fundamentals ka knowledge achha hai also tumhare projects ache hai, tumhe development ka knowledge accha hai toh Technical Round bhi niklega.

And that's it guys...

## Ab addtionally kuch aise chije suno jo tumhe nahi krni hai, jo mistakes maine ki hai.

1. Maine DSA pe km and Development pe jyada focus kiya tha. Ye mt

krna, see at last agr Online Assessment hi nhi nikla toh tumhare development ka kuch fayda nahi. Dono ko apne apne weightage ke hisab se krna hai. Tumhare pas jb achhe projects bn jaye, toh development ko bs kro. DSA ya fir Problem Solving tumhe logic building sikhayga, and vo companies mai iyada important hoti hai.

### 2. Mai jyada consistent nahi tha.

See, Consistency is the Key, ye faltu mai nhi kehte. See may be tumhare questions pehle pehle solve na ho, fir bhi baithe raho, try kro, solutions dekho, but kuch dino bad, you will get to know ki yr ho raha hai, dheere dheere sb aa raha hai. and that's important.

And that's all. Mujhe bohat sare juniors ye same question puchte hai, isliye abhi thoda time deke achhe se explain kiya, fir bhi aur kuch doubt ho, toh yr DM krdo. Mujhe bhi mere seniors ne help ki thi, and now its my turn. Toh I am always open for help guys.

And one more, yaha pe aur ek question aata hai, ki bhai mere college mai companies hi nahi aati :)

Toh ye article thoda bada hoga, iske liye alg se kuch post vagaira karunga. Bt filhal skills ko build krne pe dhyan do, ek bar vo hogaya toh companies khud tumhe dhundegi.

Thank you! Best wishes all of you, keep shining and enjoy! 😊 🙌