

Interview Preparation - 3

Relevel
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Topics to be Covered



Non Tech Interview Questions



Coding Round Interview Questions



Preparation Strategy for DS and Algorithm



Common Preparation Queries

In this class we are going to learn some commonly asked non technical interview questions and then learn how to prepare for data structures and algorithms then queries which many candidates have we have while preparing for interviews.



Non Tech Interview Questions

Here, we will look into some non technical questions asked in the interview, what they actual mean. What is here the interviewer is looking for in a candidate and a sample answer for it.



Non Tech Interview Questions

1. How would you handle a situation where you are working on a project which is about to be released in two days and suddenly you have got a family emergency which has made you choose either one of them.

What is here the interviewer is looking for and what is expected from the interviewee:

Both the choices are critical but the interviewer is not expecting any emotional response where for an employee his or her family comes first and then the job. Rather he expects how responsible you are towards your job. Obviously you would choose to go for the family emergency, which the company expects too but the important point is how you handle this critical requirement which also involves millions of dollars of investment and critical deadline. Read the sample answer for better understanding.



Non Tech Interview Questions

Sample Answer:

In a situation like this, first of all while working on this project I would try to have someone who knows what all I have done in the project, which is basically a shadow who will have a rough idea of all the things which I would have been doing on the project. Before leaving I would make a report which will have all the details of the project, like what all things have been implemented so far, what all things are in progress and what should be done next to complete the project on time. If not the shadow, I would find a suitable peer who has some knowledge on this project and can handle the task while and gone and with whom I can be in touch for any emergency at the time I will be away via calls.

This answer will make an impression to the interviewer that while the candidate has to leave a task for some emergency, he/she respects his work so much that instead of leaving it at a critical point he or she has rather respected the company's value and made efforts to meet the project deadline even while gone.



Non Tech Interview Questions

2. Why are you interested in the IT industry?

What is here the interviewer is looking for and what is expected from the interviewee:

Here, the interviewer wants to know how much the candidate is serious about this work and passionate about working in the IT industry.

Sample Answer:

As we know, to land a job in the IT Industry, it requires degrees from certain domains only and due to my family's economic condition, I wasn't able to pursue my education in those curricula. I always had a keen interest in coding and while working in other industries I took the time to study a computer science aspect and technology and enhance my skills on coding.

Above answer can be suitable for someone who has an interest in starting his or her career in the IT industry and didn't get a chance to start his career in it due to some financial issues.



Coding Round Interview

Let us look at a scenario where you will be given a coding question whose solution you might know or might not but what other cues you should work upon to make yourself stand strong and confident in this time period.



Coding Round Interview

1. How to start a question in interviews?

Things to remember:(1/2)



Always involve your interviewer, don't solve the problem silently. Discussing the approach while trying to solve the problem lets the interviewer know your thought process and how usually you tackle problems.



Interact with him/her like ask more details on the questions to clarify the problem statement like space and time constraints, or upper and lower bound for the input like size of the sample input to expect and so on.



Suppose you know an optimal solution, don't beat around the bush much and start implementing the solution while explaining it on the fly.

Coding Round Interview

1. How to start a question in interviews?

Things to remember:(2/2)



Instead of providing the solution directly to the interviewer to check, do a dry run on your own. It will give you two advantages:



Interviewer will see that you on your own is taking responsibility to understand the code

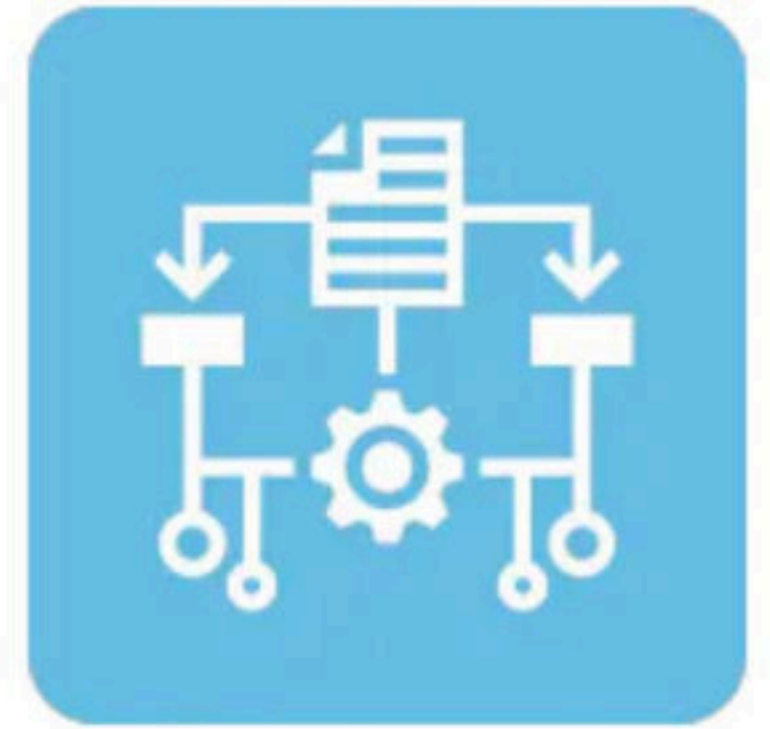


You can also find any error which you missed out the first time and doing this you are sure about your solution now.

Preparation Strategy for DS and Algorithm:

Data Structure and algorithm is one of the most important topics while preparing for an interview. It has so much impact that nowadays many companies take a separate round only on this topic to understand how good and good a candidate is on Data Structures and Algorithms. This clearly suggests that this cannot be avoided.

Now the question comes how to prepare for this. This is really important to understand that DSA is not a day or a week thing to cover and become expert on it, it is something which comes with daily practice and proper strategy. It is not a good idea to learn something and directly jump onto LeetCode or GeeksForGeeks and start solving questions.



Preparation Strategy for DS and Algorithm:

This will only make you feel low and demotivate you from the preparation when you can't figure out the problem. Even worse is when you give up and adopt an attitude to check the solution after struggling for 20 - 30 minutes. This will not help your brain to train well and try to solve problems on your own, you will find this attitude getting reflected in each problem, for thinking only for 20 minutes you will automatically go and look for a solution every time.

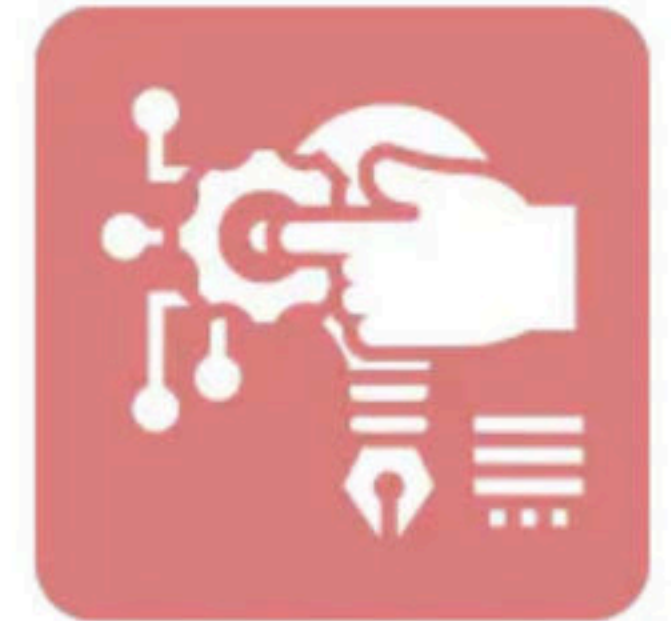
Well these things should be avoided as it's not a correct way to learn. This attitude will make it difficult to solve questions in an interview where time and resources are both limited. It is totally acceptable to get stuck in a problem for a day or two, this is how you will make your brain work and actually find a solution on its own. Slowly and gradually you will observe that this duration to figure out the solution will decrease and then you will observe the actual result.



Preparation Strategy for DS and Algorithm:

To make this journey of learning DSA a smooth ride, we should plan our preparation in two phases. In the first phase we should understand all concepts like Time complexity, Array, Sorting, Map, Linked list and so on. All the concepts are listed below.

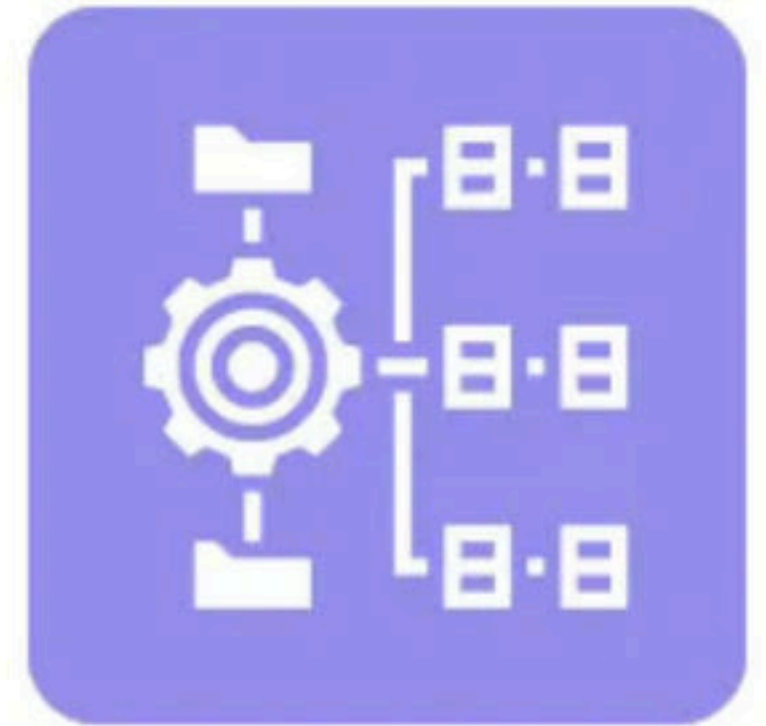
- Time Complexity
- Arrays
- Sorting
- Searching
- Map
- LL
- Stack
- Queue
- Graph
- String



Preparation Strategy for DS and Algorithm:

Now when you learn a new data structure say linked list, apart from theory learn implement all kinds of linked list on our own, these are:

1. Linked List
 2. Double Linked List
 3. Circular Linked List
 4. Memory Linked List
- While implementing, create common CRUD operations i.e., read data from the data structure (here, linked list), add, delete and update any data in the linked list.
 - Following that learn the traversal and reversal, i.e., to travel through elements in the DS in both start and reverse manner.



Preparation Strategy for DS and Algorithm:

Let's take an example of question pattern on linked list:

1. Loop based Question
2. Reversing in group
3. Mathematical Operation
4. Restructuring
5. Sorting based questions

Once you are done with different kinds of data structures, it is time to get handy with different types of algorithms.

Algorithm:

- Backtracking
- Recursion
- Divide and Conquer
- Greedy
- Bit Manipulation
- Dynamic Programming



Preparation Strategy for DS and Algorithm:

- This completes our preparation for phase 1. In phase 2, this is where we get our hands dirty and dive into solving problems. Problems on LeetCode and GeeksForGeeks are combination of more than one concepts, this is why it is important to practice all the data structures first and then dive into solving problems no when we start solving problems we should not jump directly to difficult questions we should have a slow learning curve where we start from easy problems and slowly and gradually increase the difficulty level of the this.
- So in this way we can complete our phase two of learning data structures and algorithms.



Common Preparation Queries

Let us look at some common queries we stumble upon while preparing for the interview. It is not something asked in the interview but question which we have in our mind and look for a satisfactory answer for it.



Common Preparation Queries

1. **How to look for big companies like Google, Microsoft and Facebook when you are not from a computer science background.**

This is not a special case, many candidates face this problem at the beginning of their journey in the IT Industry. When companies recruit for freshers they majorly look for candidates with CS background and from upper tier colleges, which give them a safe choice of recruiting persons suitable for the job. But this happens only at the time of recruiting freshers. Interviewees for hiring experienced candidates do not care much about the candidate's college and degree. At that time they are more interested in what kind of work the candidate has done in his IT career and how much grasp he or she has on DSA and computer networks. The best thing to do in such a situation is to start gradually. Work in a small company, get the experience, and practice Data Structure and Algorithms and Computer Network. Once you have all these, you can move to better and bigger companies like Google, Microsoft and Flipkart.



Common Preparation Queries

2. When being unemployed and having covered part 1 for preparation, should I wait and prepare and should I apply for the jobs?

At this stage of your preparation it will be wise to start looking for jobs and appear for the interviews for companies like startups and service based companies. These companies usually do not look for a high level understanding of all the technologies and are more willing to give a chance to candidates who are interested and have good enough knowledge on DSA. Try to proceed with phase 2 after joining a company, this will not only give a chance to learn about IT industry work life and solve real time customers issues but also a positive feeling that comes with being employed. The preparation pressure is quite relieved and now you can focus more on your learning and preparation.



Common Preparation Queries

3. While learning DSA should I learn more than one language or stick to only one, if so which should it be?

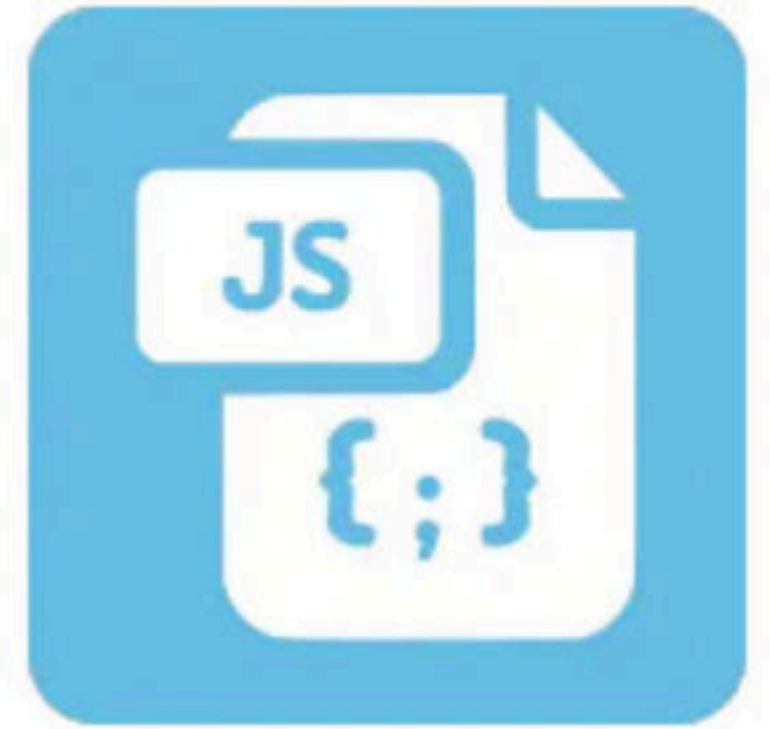
It will be a good practice to stick to one programming language while learning Data Structure and Algorithm. Firstly, it will help you understand that language in depth while learning different types of Data Structure and algorithms and secondly, knowledge of multiple languages is what companies on interview are fond of. Try to learn DSA using a JVM based language like Java, Scala or any other, mostly because they are good server side scripting language and preferred by many big companies and also because these language gives a better foundation for your learning after which it's really easy to explore into other languages which are just the time away you need to understand their syntax.



Common Preparation Queries

4. If you have been working on one language, say JS for a company for almost 3 years and more, then how should I make a switch to a JVM based language like Java?

Suppose you have been working on JavaScript or any other language in which you are in practice for more than two years in any company and now you want to switch to a JVM based language like Java one way to start this is to try learning the syntax if you are aware of different kinds of data structures algorithms in your previous used language it will not be much of a pain to start into different language like Java the only difference which will be here is the syntax and its usage and slowly and gradually while learning and data structures in this language you will be able to get handy to it easily.



Common Preparation Queries

5. What do you do when we feel anxiety a day before the interview?

It is natural to feel anxious a day or two before your interview. The best thing you can do is to try to be prepared for it by doing mock interviews. You can have a group of friends where you can help out each other to prepare for the interview. You can ask your mentor to help you practice mock interviews or you can also practice in front of the mirror. By any means you will get to know where you are missing things or what your weak spots are, this will also help you speak up more confidently and reduce stammering.



Common Preparation Queries

6. When the interview asks you a question you don't know?

It will not always be the case where the candidate will be knowing answers of all the questions, in fact using these kinds of questions the interviewer tries to know if the candidate is willing to attempt the question when he/she does not know the answer. The best thing to do here is to try to understand the question thoroughly and ask more details about the questions. These will not only help you to get to the solution but will also show how you tackle unseen problems which you are going to face in your day to day life at work.



Thank You