**DSA-1 Easy Mock Interview**

| **Description** | DSA 1 Easy mock is for testing if candidate has understood at least basics of programming and can be helped with implementation **Time**: 30 mins |
| --- | --- |
| **Topics** | Input output, Arrays, Searching, Sorting, Hashing, Time and space complexity |
| **Sample questions** | Create an array and iterate over it, printing all the even elements |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-1 Medium Mock Interview**

| **Description** | This mock is for testing if the candidate has understood at least basics of searching / sorting and has implementation skills. **Time**: 45 mins |
| --- | --- |
| **Topics** | Input output, Arrays, Searching, Sorting, Hashing, Time and space complexity |
| **Sample questions** | **Given an array A[], and int K, find the max three elements whose sum N, will create a new value N2 which should be the maximum possible value** |
| **Result** | ***Yes*** : Candidate is able to search / sort an array with techniques like bubble sort, merge sort, quick sort, binary search. He is good with time complexity.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions / write pseudocode. |

**DSA-1 Hard Mock Interview**

| **Description** | This mock is for testing the candidate on ability to do operations like search on it. He / she should be able to find unique elements / duplicate elements in an array. **Time**: 45 mins |
| --- | --- |
| **Topics** | Input output, Arrays, Searching, Sorting, Hashing, Time and space complexity |
| **Sample questions** | **Given an array A, and an element X, find the minimum number of elements required to be added to the current array A so that the median of all the elements of the array A should be X.** |
| **Result** | ***Yes*** :Students are able to work with arrays to find patterns (ex: sum) in an array. He is expert in basic searching and sorting algorithms. ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions / write pseudocode. |

**DSA-1 Challenge Mock Interview**

| **Description** | This mock is for testing the candidate on his programming skills in listed topics, where without reference / bottlenecks he is able to solve high quality problems. **Time**: 45 mins |
| --- | --- |
| **Topics** | Input output, Arrays, Searching, Sorting, Hashing, Time and space complexity |
| **Sample questions** | **Given an array A[] with N elements, some of which are 0. All you have to do is move the zeros to the right of the array, without changing the order of any other elements.** |
| **Result** | ***Yes*** :Should be able to hash basic elements of an array without any functions / libraries. Should be expert in searching / sorting algorithms with time complexity. ***Maybe*** : Student knows the concepts partially, and can improve by himself. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions / write pseudocode. |

**DSA-2 Easy Mock Interview**

| **Description** | DSA 2 - Easy mock is for testing if a candidate is able to implement linkedlist, stack, queue in any given programming language. Knows basics of hash based data structures. **Time**: 45 mins |
| --- | --- |
| **Topics** | String, LinkedLists, Stack, Queue, Hashing. |
| **Sample questions** | **Implementation of LL, stack , queue. Conversion of string to character array and vice-versa.** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-2 Medium Mock Interview**

| **Description** | DSA 2 - Medium mock is for testing if a candidate can delete elements from LL, find duplicates in single directional LL, create circular LL, doubly LL, push, pop in stack , queue, able to deal with maps and sets . **Time**: 45 mins |
| --- | --- |
| **Topics** | String, LinkedLists, Stack, Queue, Hashing. |
| **Sample questions** | **Implementation of any given data structures in any language + One question**  **Example : You are given a stream of integers represented by an array <b>arr[]</b> of size <b>N</b>. Whenever you encounter an element arr[i], you need to increment its <b>first occurrence</b>(on the left side)if present in the stream by 1 and append this element in the array. You don't have to do this when you encounter arr[i] for the first time as it is the only occurrence till then. Finally, you need to print the updated array.** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-2 Hard Mock Interview**

| **Description** | DSA 2 - Hard mock is for testing if a candidate can Create LL , stack , queue operations from scratch. Able to solve hard level topic problems like sliding window. **Time**: 45 mins |
| --- | --- |
| **Topics** | String, LinkedLists, Stack, Queue, Hashing. |
| **Sample questions** | **Implementation of LL, STACK, Queue & their functions by code, traversal , insertion, deletion, finding duplicates, merging two linked lists, merging linked lists in reverse** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-2 Challenge Mock Interview**

| **Description** | DSA 2 - Challenge mock is for testing candidate’s expertise on given data structures. **Time**: 45 mins |
| --- | --- |
| **Topics** | String, LinkedLists, Stack, Queue, Hashing. |
| **Sample questions** | **Solve any leetcode medium / hard level problem on LinkedList , Stack / Queue** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-3 Easy Mock Interview**

| **Description** | DSA 3 - Easy mock is for testing if a candidate knows basics of recursion. **Time**: 45 mins |
| --- | --- |
| **Topics** | Recursion, Dynamic Programming. |
| **Sample questions** | **Able to solve fibonacci, factorial problems using recursion** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-3 Medium Mock Interview**

| **Description** | DSA 3 - Medium mock is for testing if a candidate is able to traverse string, arrays using recursion, and know the basics of dynamic programming. **Time**: 45 mins |
| --- | --- |
| **Topics** | **Recursion**, Dynamic Programming. |
| **Sample questions** | **Find out permutation of string, array, able to generate subsequence, supersequence, knapsack problem** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also implementation is strong.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-3 Hard Mock Interview**

| **Description** | DSA 3 - Medium mock is for testing candidates on good quality questions of dynamic programming. The candidate should at least be able to break down problems and come to solutions , even though implementation is weak.. **Time**: 45 mins |
| --- | --- |
| **Topics** | Dynamic Programming. |
| **Sample questions** | **Pickup easy/ medium level leetcode dp problems. The student should be able to atleast breakdown the problem and create logic around the solution  Ex : Matrix Chain Multiplication** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also implementation is strong.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA-3 Challenge Mock Interview**

| **Description** | DSA 3 - Medium mock + Compulsory Execution. **Time**: 45 mins |
| --- | --- |
| **Topics** | Dynamic Programming. |
| **Sample questions** | **Hard Leetcode Dynamic Programming problems with proper code.** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also implementation is strong.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions partially & also can code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA- 4 Easy Mock Interview**

| **Description** | DSA 4 - Easy mock is for testing if a candidate knows basics of trees and graphs. **Time**: 45 mins |
| --- | --- |
| **Topics** | Trees, Graphs. |
| **Sample questions** | **Able to implement trees and graphs in any given programming language, with traversal** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA- 4 Medium Mock Interview**

| **Description** | This mock is for testing if a candidate is aware of cyclic graphs, topological sorting, MST , backtracking, shortest path |
| --- | --- |
| **Topics** | Trees, Graphs. |
| **Sample questions** | **Find duplicates in a cyclic graph.** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA- 4 Hard Mock Interview**

| **Description** | This mock is to check coding Implementation check on trees and graphs. **Time** : 1 Hour. |
| --- | --- |
| **Topics** | Trees, Graphs. |
| **Sample questions** | **Candidate is able to implement graphs based medium leetcode problems in his choice of programming language. Ex: https://leetcode.com/problems/all-paths-from-source-to-target/** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & are also able to implement it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |

**DSA- 4 Challenge Mock Interview**

| **Description** | This mock is for testing if a candidate is aware of cyclic graphs, topological sorting, MST , backtracking, shortest path |
| --- | --- |
| **Topics** | Trees, Graphs. |
| **Sample questions** | **Candidate is able to implement graphs based on hard leetcode problems in his choice of programming language. Ex: https://leetcode.com/problems/cracking-the-safe/** |
| **Result** | ***Yes*** : Students have a good understanding of given concepts theoretically & also code some of it.  ***Maybe*** : Student knows the concepts but is not very clear. He can answer some questions & others partially & also cannot code properly.  ***No*** : Students have very poor understanding/ cannot even comprehend solutions. |