

SOC Mid-term Report

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Leetcode ID - <https://leetcode.com/u/AyushVIAW/>

Code360 - <https://www.naukri.com/code360/profile/82172daf-a67f-4d0f-a489-08841843b4af>

Week 1:

- Basics of All languages C++, python and Java, including syntaxes, logic and algorithms.
- Moving further with C++ for the course ahead, I learned about various things.
- Flowcharts, pseudocode of question given, deep understanding of variables, loops, conditions, questions based on patterns, bitwise operators, switch statements and functions.
- Then firstly solved the problems attached with each video and within the videos
- Further solved various leetcode problems of all the topics learnt and gained a deeper understanding in algorithms.
- Learnt about real world scenarios in coding problems and implemented algorithms accordingly.

Week 2:

- After gaining a basic understanding of basic concepts, I started with some complex datatypes – Arrays.
- Gained a detailed understanding of arrays and usage, solved the Leetcode problems again.
- Moving on with Time and Space complexity.
- Learnt algorithms like Binary Search and solved questions related to it.
- Solved all types of questions spread over 3 detailed videos on Question solving.
- Some famous problems like Book allocation problem and Aggressive Cow problem.

Week 3:

- Basics of All languages C++, python and Java, including syntaxes, logic and algorithms.
- Moving further with C++ for the course ahead, I learned about various things.
- Flowcharts, pseudocode of question given, deep understanding of variables, loops, conditions, questions based on patterns, bitwise operators, switch statements and functions.
- Further solved various leetcode problems of all the topics learnt and gained a deeper understanding of algorithms.
- Learnt about real world scenarios in coding problems and implemented algorithms accordingly.

Week 4:

- Concepts of 2D arrays, char and strings and basic Math for DSA.
- Pointers and Double Pointers.
- Dynamic Memory allocation and scope of variables.
- Solved Questions from the videos related to these topics.

Week 5:

- Recursion and recursion in binary search.
- Merge Sort, Quick Sort
- Contests.