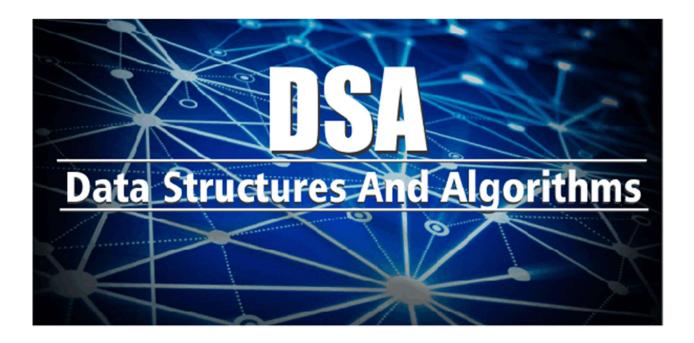# SOS 2021 : Plan of Action
Data Structures and Algorithms

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Projected Timeline of the Project:

- Phase 1: (**18 May – 25 May**)
  - This week will include VS code installation and revision of C++ by solving some basic programming problems on hackerrank. And also include learning following basic topics of DSA:
    - Arrays
    - Sorting – Bubble sort, Insertion Sort
    - Watching Videos 1- 28 of Youtube Course, and solve problems on Hackerrank

- Phase 2: (**26 May – 14 June**)
  - In this phase I'll start with some advanced topics in DSA. And watch videos 29 - 142 of given Youtube channel and solve relevant problems on Hackerank These topics include:
    - String, BIT manipulation
    - Recursion

- Sorting Algorithms – Merge Sort, Count Sort, DNF sort, Wave sort
- Linked Lists
- Stacks
- Binary Tree
- Heaps
- Hashing

15 June : Mid-summer Report Submission and Modified Plan of Action Submission

- Phase 3: (**16 June – 14 July**)
  - This phase include covering last few topics and mostly involve practice solving problems in Hackerrank. These topics would be:
    - Greedy Algorithm
    - Graphs (Main focus)
    - Dynamic Programming
    - Miscellaneous Concepts
    - Problem solving in Hackerrank

15 July : SOS final Report Submission and Video Submission

End Goal

Learn concepts in Data structures and Algorithms and solve atleast 100 problems of DSA on hackerrank.