

Week 1

- **Day - 1:** Analysis of Algorithm : Best, Average and Worst Case, Notation, Time and Space Complexity.
- **Day - 2, 3, 4:** List in Python: Average & Mean of list, slicing, reverse and rotation of List.
- **Day - 5, 6:** Hashing : Hashing function, collision, chaining, set and dictionary in python.
- **Day – 7:** Recursion : Applications, Tower of Hanoi, josephus problem and practice available problems.

Week 2

- **Day-1, 2:** Searching : Linear & Binary search, count Occurrence and Recursive binary Search.
- **Day 3 & 4:** Sorting : Bubble, Selection, Merge, Insertion, and Quick Sort with their analysis.
- **Day 5 & 6:** Linked List : Introduction, Application, Traversal, Search, Deletion, Sorting and Reverse of linked list.
- **Day - 7:** Circular Linked List : Advantages and Disadvantages, Traversal, Insertion and Deletion. Attempt Contest 1.

Week 3

- **Day - 1 :** Doubly Linked List : Advantages & Disadvantages, Insertion, and Deletion.
- **Day – 2, 3:** Stack : Applications, Implementation, Infix, Prefix, & Postfix evaluation.
- **Day – 5, 6:** Queue : Applications, Implementation, and practice available problems
- **Day – 7:** Attempt contest 2

Week 4

- **Day-1, 2, 3:** Tree : Introduction, Application, Searching and practice available problems.
- **Day – 4, 5, 6:** Binary Search Tree : Introduction, Application, Searching and practice available problems.

- **Day- 7:** Attempt Contest 3.

Week 5

- **Day 1, 2 :** Heap : Introduction, Implementation, Sorting and Build Heap.
- **Day 3, 4, 5:** Graph : Introduction, Representation, Application of DFS and BFS, solve available practice problems.
- **Day 6:** Attempt contest 4
- **Day 7 onwards:** Practise Must do interview questions for Data Structures and Algorithms.

Note 1: This is a recommended plan to complete the course, but it is the complete discretion of the candidates to choose their way of completion of the course depending on the availability and efficiency of the course.

Note 2: Also while solving tracks it is advisable to complete the Contests simultaneously.