

# Data Structure:

In this Data Structure course, we will include all topics of Data Structure such as Array, Pointer, Structure, Linked List, Stack, Queue, Graph, Searching & Sorting techniques. And also, you will learn basic algorithms such as searching and sorting techniques on different data structures and examine the efficiency of these algorithms.

## Syllabus:

### Module 1: Basic Concepts

1. Introduction
2. Algorithm
3. Asymptotic Analysis

### Module 2: Array

6. DS Array

### Module 3: Linked List

8. Linked List
9. Doubly Linked List

### Module 4: Stack

12. Stack
13. Array Implementation

### Module 5: Queue

15. Queue
16. Array Representation

### Module 6: Tree

19. Binary Tree
20. Binary Search Tree
21. AVL Tree

### Module 7: Graph

24. Graph
25. Graph Implementation
26. BFS Algorithm

4. Pointer
5. Structure

7. 2D Array

10. Circular Linked List
11. Circular Doubly List

14. Linked List Implementation

17. Linked List Representation
18. Circular Queue

22. B Tree
23. B+ Tree

27. DFS Algorithm
28. Spanning Tree

## Module 8: Searching

29. Linear Search

30. Binary Search

## Module 9: Sorting

31. Bubble Sort

32. Bucket Sort

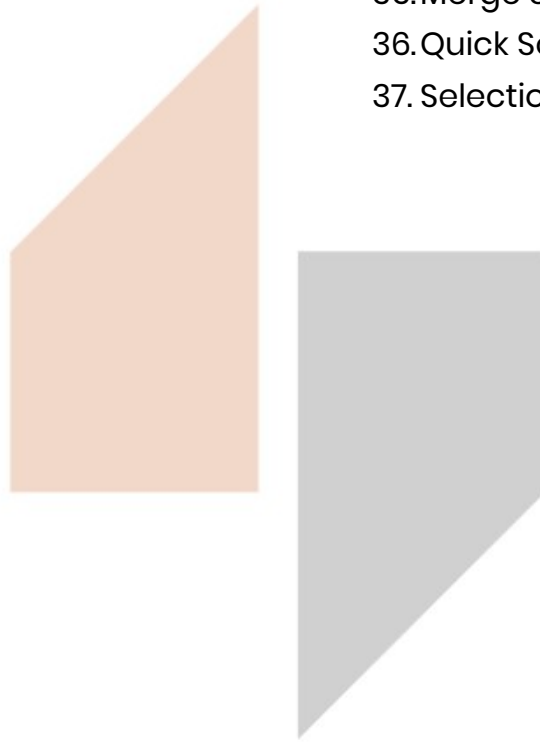
33. Heap Sort

34. Insertion Sort

35. Merge Sort

36. Quick Sort

37. Selection Sort



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