

1. Write a C Program to implement Stack ADT Using arrays and linked lists?
2. Write a C Program to implement Queue ADT Using arrays and linked lists?
3. Write a c Program to convert infix expression to postfix expression?
4. Write a C Program to implement List ADT?
5. Write a C Program to implement Sparse Matrices?
6. Write a C Program to traverse Binary tree?
7. Write a C Program to implement priority queues using arrays?
8. Write a C++ program to implement the search algorithms of the graph: Depth first search and Breadth first search.
9. Write a C program to find the connected components of the graph.
10. Write a C program to implement the spanning tree algorithms Kruskal's, Prim's.
11. Write a C program to implement insertion sort algorithm
12. Write a C program to implement quick sort algorithm
13. Write a C program to implement merge sort algorithm
14. Write a C program to implement heap sort algorithm
15. Write a C Program to implement Static Hashing.
16. Write a C Program to implement Dynamic Hashing
17. Write a C Program to implement AVL Trees.
18. Write a C Program to implement RED Black Trees.
19. Write a C Program to implement Splay Trees.

## Text Books:

1. Fundamentals of Data structures in C 2<sup>nd</sup> edition HOROWITZ , SAHNI, ANDERSON-FREED.

