**Assignments list**

1. Write a C program to accept list of cities and search a given city using Linear Search. Use stepcnt, swapcnt, compcnt in your program to calculate time complexity and at end display the 3 counts.
2. Write a C Program to find Depth First Search of the graph. Print the Adjacency Matrix, In-degree and Out-degree of the graph.

3) Write a C Program to find Breadth First Search of the graph. Print the Adjacency Matrix, In-degree and Out-degree of the graph.

4) Write a C Program to Create Binary Search Tree using Linked List with the following options:

1) Create

2) Insert

3) Preorder

4) Inorder

5) Postorder

6) Exit

5) Write a C program to create a dynamic stack with push, pop and display options.

6) Write a C Program to Create doubly linked list with the following options:

1) Insert

2) Insert at beginning

3) delete random location

4) display

5) Exit

7) Write a C program to create a dynamic queue with enqueue, dequeue and display options.

8) Write a C Program to Create Singly linked list with the following options:

1) Insert

2) Insert at beginning

3) delete random location

4) display

5) Exit

9) Write a C program to create a static queue with enqueue, dequeue and display options.

10) Write a C Program to Create circular linked list with the following options:

1) Insert

2) Insert at beginning

3) delete random location

4) display

5) Exit

11) Write a C program to create circular queue with all appropriate options.

12) Write a C program to find Union and Intersection of two Linked Lists.

13) Write a C program to convert infix expression to postfix expression using stack.

14) Write a C program to print reverse string using stack.

15) Write a C Program to create queue using array.

16) Write a C Program to create stack using array.

17) Write a C Program to create BST using array with all possible operations.

18) Write a C program to create graph with following options:

1) Adjacency List

2) Depth First Search

3) Exit

19) Write a C program to create Circular Doubly Linked List with all possible operations.

20) Write a C program to check whether the string is palindrome or not using dynamic stack.

21)Write a C program to sort the given array using Quick sort method.

22) Write a C program to sort the given array using Mergesort method.

23) Write a C program to sort the given array using Insertion sort method.

24) Write a C program to sort the given array using Bubble sort method.

25) Write a C program to sort the given array using Counting sort method.

26) Write a C program to perform Polynomial Addition with all validations.

27) Write a C program to perform Polynomial Multiplication with all validations.