

Data structures Lab exercises

BCA/BSc(Comp Sc)

LAB -1

1. Create a LINKED list to enter **some numbers** and display the content of the linked list
2. Create a linked list with each node having a **character string** as the data item. List all the strings.(tip: Use **strcpy()** to assign the string to the Data variable in the list node.)

LAB-2

1. Write a menu driven program in C to create an **ORDERED linked list** with the following options. a)Insert a number b) Display the list of numbers c) Search for a given data item. D) Delete a given number.
2. Write a menu driven program in C to create an **ORDERED linked list** with character string as a data item with the following options : a) Insert a string b) Display the string c) Search for a given string. d) Delete a given string
(tip: Use **strcpy()** to assign the string to the Data variable in the list node and **strcmp()** while searching for a given string.)

LAB-3

1. Write a menu driven program to show the working of a **DOUBLY LINKED LIST** with options: a) To enter a number b) Display the content of the list in forward and backward by moving the forward and backward arrow. c) To delete a given data item. d) Exit
2. Write a menu program in C to show the working of a **QUEUE** with options: a) Enqueue b) Dequeue c) Exit
3. Write a menu program in C to show the working of a **CIRCULAR QUEUE**.

LAB-4

1. Write a menu driven program in C to show the working of a Binary Search Tree with options: a) Insert a number b) **INORDER** traversal b) **PREORDER** traversal c) **POSTORDER** traversal. d) Display only **LEAF NODES** e) **Search** for a given data item f) EXIT