



VIT[®]
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

SCHOOL OF COMPUTER SCIENCE AND ENGINEERING

Lab Assignment - II, Fall Semester 2022-23

Course Code : BCSE202

Course Name: Data Structures and Algorithms

Last Date : 26-09-22

Note:

Upload the codes along with the snapshots of the output for each.

1 . Write a menu driven program to perform following functions in a singly linked list.

i) Insertion in the beginning of the list

ii) Insertion at the end of the list

iii) Insertion in a particular location of the list

iv) Deletion based on a particular value

v) Deletion based on a particular location

vi) Deleting an element at the beginning

vii) Deleting an element at the end of the list

viii) Search an element

ix) Reverse the list

x) Count the number of even and odd numbers in the list

xi) Display the contents of the list

2 . Write a menu driven program to perform following functions in a doubly linked list.

i) Insertion in the beginning of the list

ii) Insertion at the end of the list

iii) Insertion in a particular location of the list

iv) Deletion based on a particular value

v) Display the contents of the list

3. Write a menu driven program to perform following functions in a circularly singly linked list.

i) Insertion in the beginning of the list

ii) Insertion at the end of the list

iii) Deletion from the beginning of the list

iv) Deletion from the end of the list.

4. Create linked list to enroll the students who wish to participate for a gaming event by taking details like Name, Register No., Age, Phone number. Ensure that no more than five members are there in the list with same age. Perform insertion(), deletion() and display() operations on the Linked List.