

University of Engineering & Managem'ent, Kolkata



Department of Computer Science & Engineering

DATA STRUCTURE LAB

Subject Code - CS392

SESSION- 2018 ODD SEM

ASSIGNMENT – V

**Objective – To implement the concept of Doubly Circular
linked list**

Date of Assignment - 29.08.2018

Date of Submission - 05.09.2018

- 5.1 Write a C program to create a Doubly Circular linked list.
- 5.2 Write a C program to display the elements of a Doubly Circular linked list.
- 5.3 Write a C program to search a user given element in a Doubly Circular linked list.
- 5.4 Write a C program to add an element at beginning of a Doubly Circular linked list.
- 5.5 Write a C program to add an element at the end of a Doubly Circular linked list.
- 5.6 Write a C program to add an element at any user given position of a Doubly Circular linked list.
- 5.7 Write a C program to count the number of nodes present in a Doubly Circular linked list.
- 5.8 Write a C program to delete a node at beginning of a Doubly Circular linked list.
- 5.9 Write a C program to delete a node at end of a Doubly Circular linked list.

- 5.10 Write a C program to reverse a Doubly Circular linked list.
- 5.11 Write a C program to implement the concept of a circular Queue (Ring buffer) using singly Doubly Circular linked list.
- 5.12 Write a C program to split Doubly Circular linked list into two equal halves.
- 5.13 Write a C program to implement the following

Create a Doubly circular linked list and store N number of string there.
Traverse the list using a starting node (given).
- 5.14 Write a C program to insert a new value in a sorted Doubly Circular linked list.
- 5.15 Write a C program to implement the josephus problem using Doubly Circular Linked List.
- 5.16 Write a C program to identify the middle element present in a Doubly Circular linked list.
- 5.17 Write a C program to exchange the first and last node of a Doubly Circular linked list and display that.
- 5.18 Write a C program to insert a new node at the middle of a Doubly Circular linked list.
- 5.19 Write a C program to delete a node from the middle of a Doubly Circular linked list.
- 5.20 Write a C program to merge two doubly circular linked lists in sorted order.