

Academic Year 2024-25 | Semester-2

**List of Extra Practical** 

**Subject:** 2305CS201 – Data Structure Faculty: Prof. Nidhi K. Chitroda

LAB	PRACTICAL
1.	Given an array <b>arr[]</b> of n integers and a <b>target</b> value, the task is to find whether there is a pair of elements in the array whose sum is equal to <b>target</b> .
2.	Given an array arr[] of n integers where arr[i] represents the number of chocolates in ith packet. Each packet can have a variable number of chocolates. There are m students, the task is to distribute chocolate packets such that:  • Each student gets exactly one packet.  • The difference between the maximum and minimum number of chocolates in the packets given to the students is minimized.
3.	Given a matrix <b>mat[][] of</b> size <b>m x n</b> , the task is to print all elements of the matrix in spiral form.
	Matrix: $1 \rightarrow 2 \rightarrow 3 \rightarrow 4$ $5 \rightarrow 6 \rightarrow 7  8$ $9  10 \leftarrow 11  12$ $13 \leftarrow 14 \leftarrow 15 \leftarrow 16$ Output: 1, 2, 3, 4, 8, 12, 16, 15, 14, 13, 9, 5, 6, 7, 11, 10
4.	Implement a Stack using Queues.
5.	Check balanced parenthesis using stack.
6.	Implement a Queue using Stacks.
7.	Reverse a Queue using Recursion.
8.	Convert singly linked list into circular linked list
9.	Find Middle of the singly Linked List.
10.	Check if a Doubly Linked List is Palindrome.