Data Structure Lab, B.Tech 2nd Semester

Instructions

1. After completion, you can share the files through the google form, the link will be provided.

2. Deadline to submit is 20th April 2023 till 5pm.

Assignment -2

1. Write a C program that takes an integer array of size n as input from the user and rearranges the elements of the array in such a way that all even numbers appear first, followed by all odd numbers.

    For example, if the input array is {3, 7, 2, 9, 4, 8, 6, 1}, the output array should be {2, 4, 8, 6, 3, 7, 9, 1}.

    Note: You should not use any additional arrays or data structures to solve this problem. Instead, you should rearrange the elements of the existing array in place.

2. Write a C program to find the second largest element in an integer array of size n.

3. Given a square matrix, calculate the absolute difference between the sums of its diagonals.
For example:

1	2	3
4	5	6
9	8	9

Arr=

The left-to-right diagonal = 1+5+9=15. The right-to-left diagonal = 3+5+9=17. Their absolute difference is |15-17|=2

4. Write a C Program to Find Transpose of a Matrix.

Example,

A=

3	4	5
1	6	7

B=A'=

3	1
4	6
5	7