EXPERIMENT-8: 2D Arrays & Searching

Objective: To understand the concept of 2D Arrays and searching techniques.

List of Lab Activities:

Write algorithm and C program, compile, execute and test the code using Linux C compiler with suitable test cases.

1. Find the sum of rows and columns of matrix of given order.
2. Count how many even numbers are there in a given integer array. [Hint: Linear Search]
3. Store 'n' integers in an array in ascending or descending order. Search for a number with binary search technique.

List of Practice Activities:

Write algorithm and C program, compile, execute and test the code using Linux C compiler with suitable test cases.

1. Find the Transpose of a matrix.
2. Find the product of two matrices using pointers.
3. Find if the given matrix of order is a Sparse matrix or not. [Assume that a matrix can become a sparse matrix if more than half the total number of its elements have the value zero]
4. Find out the largest and smallest number in a given array. [Hint: Linear Search]
5. Store 'n' integers in an array in ascending or descending order. Find the number of comparisons made while searching for a number when using linear and binary search technique.