Assignment No. – [   ]
Using Two Dimensional Array (Matrix)

Write a program in 'C' to perform the following tasks:

1. Read and display a two dimensional array, where the number of rows and columns are given as input by the user.

2. Read a matrix and find the sum and product of all elements present in it.

3. Find sum of all elements of each row of a matrix.

4. Check if two given matrices are identical or not.

5. Replace all even numbers with 'E' and odd numbers with 'O' present in a matrix.

6. Read a matrix and replace all its diagonal elements as zero.

7. Read a matrix and find its transpose.

8. Test whether a square matrix is symmetrical or not (i.e. transpose and the matrix is equal or not).

9. Find the maximum and minimum element present in a matrix.

10. Print the diagonal elements of a square matrix and find their sum.

11. Add 4 to the diagonal elements and subtract 2 from other elements present in a matrix.

12. Replace upper half of a square matrix to zero

13. Add two matrices. (Initially check the condition whether the matrix addition is possible or not).

14. Multiply two square matrices.

15. Enter only 0 and 1 in a matrix and find the row with the maximum number of 1s.

16. Search an element from a matrix and display its position where it is present.