Logic Building Assignment : 55

1.Write a program which accept matrix from user and display transpose of the matrix.

The transpose of a given matrix is formed by interchanging the rows and columns of a matrix.

Input :

3	2	5	9
4	3	2	2
8	4	1	5
3	9	7	5

Output :

3	4	8	3
2	3	4	9
5	2	1	7
9	2	5	5

```
void Transpose(int Arr[][], int iRow, int iCol)

{

    //Logic

}
```

2. Write a program which accept matrix and reverse the contents of each row.

Input :

3	2	5	9
4	3	2	2
8	4	1	9
3	9	7	5

Output :

9	5	2	3
2	2	3	4
9	1	4	8
5	7	9	3

```
void ReverseRow(int Arr[][], int iRow, int iCol)
{
        //Logic
}
```

3. Write a program which accept matrix and reverse the contents of each column.

Input :

3	2	5	9
4	3	2	2
8	4	1	9
3	9	7	5

Output :

3	9	7	5
8	4	1	9
4	3	2	2
3	2	5	9

```
void ReverseCol(int Arr[][], int iRow, int iCol)
{
       //Logic
}
```

4. Write a program which accept matrix and check whether the matrix is identity matrix or not.

Identity matrix is a square matrix with 1's along the diagonal from upper left to lower right and 0's in all other positions.
If it satisfies the structure as explained before then the matrix is called as identity matrix.

Input :

1	0	0	0
0	1	0	0
0	0	1	0
0	0	0	1

Output :   True

```
BOOL ChkIdentity(int Arr[][], int iRow, int iCol)
{
       //Logic
}
```

5. /Write a program which accept matrix and check whether the matrix is Sparse matrix or not.

Sparse matrix is a matrix with the majority of its elements equal to zero.

Input :

1	0	3	0
0	6	0	0
0	0	1	0
9	0	0	9

Output :   True

BOOL ChkSparse(int Arr[][], int iRow, int iCol)

{

        //Logic

}