Week-6

Extra programs

1.
```
import java.util.Scanner;
class matrix
{
public static void main(String args[])
{
Scanner sc=new Scanner(System.in);
int i, j, m, n;
System.out.println("Enter the number of rows and columns in the matrix");
m=sc.nextInt();
n=sc.nextInt();
int mat[][] = new int[m][n];
int tmat[][] =new int[n][m];
for(i=0; i<m; i++)
{
for(j=0; j<n; j++)
{
System.out.println("Enter the number in "+(i+1)+" row & "+(j+1)+" column");
mat[i][j]=sc.nextInt();
tmat[j][i] = mat[i][j];
}
}
System.out.println("The transpose of the given matrix is:");
for(i=0; i<n; i++)
{
for(j=0; j<m; j++)
{
System.out.print(tmat[i][j]+" ");
}
System.out.println();
}
}
```

```
import java.util.Scanner;
class matrix
{
  public static void main(String args[])
  {
    Scanner sc=new Scanner(System.in);
    int i,j,m,n;
    System.out.println("Enter the number of rows and coulmns in the matrix");
    m=sc.nextInt();
    n=sc.nextInt();
    int mat[][]=new int[m][n];
    int tmat[][]=new int[n][m];
    for(i=0;i<m;i++)
    {
      for(j=0;j<n;j++)
      {
        System.out.println("Enter the number in "+(i+1)+" row and "+(j+1)+" column");
        mat[i][j]=sc.nextInt();
        tmat[j][i]=mat[i][j];
      }
    }
    System.out.println("The transpose of the given matrix is:");
    for(i=0;i<n;i++)
    {
      for(j=0;j<m;j++)
      {
        System.out.print(tmat[i][j]+" ");
      }
      System.out.println();
```

```
  }
 }
}
```

```
C:\Users\Adithi\Desktop\java_prgs>java matrix
Enter the number of rows and coulmns in the matrix
3
4
Enter the number in 1 row and 1 column
2
Enter the number in 1 row and 2 column
4
Enter the number in 1 row and 3 column
3
Enter the number in 1 row and 4 column
5
Enter the number in 2 row and 1 column
2
Enter the number in 2 row and 2 column
4
Enter the number in 2 row and 3 column
7
Enter the number in 2 row and 4 column
6
Enter the number in 3 row and 1 column
5
Enter the number in 3 row and 2 column
4
Enter the number in 3 row and 3 column
9
Enter the number in 3 row and 4 column
0
The transpose of the given matrix is:
2 2 5
4 4 4
3 7 9
5 6 0

C:\Users\Adithi\Desktop\java_prgs>
```