WEEK 6(ONLY PRACTISE PROBLEMS WERE GIVEN)

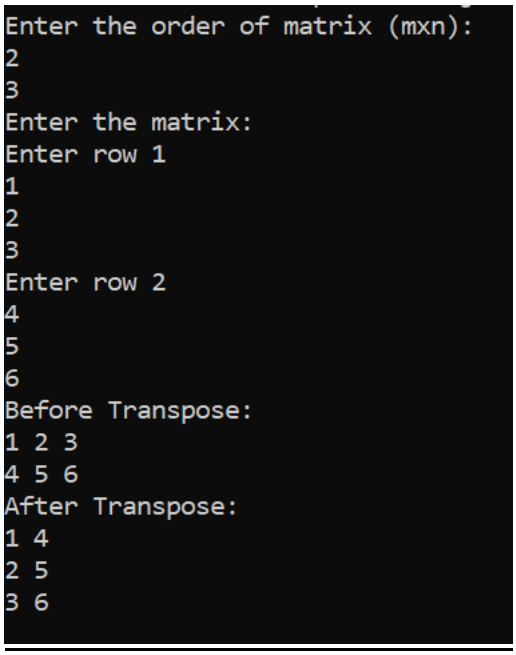
MATRIX TRANSPOSE:

CODE

```
import java.util.Scanner;

public class MatrixTrans

{

	public static void main(String args[])

	{

		int i,j,m,n;

		Scanner sc=new Scanner(System.in);

		System.out.println("Enter the order of matrix (mxn):");

		m=sc.nextInt();

		n=sc.nextInt();

		int[][]a=new int[m][n];


		System.out.println("Enter the matrix:");

		for(i=0;i<m;i++)

		{

			System.out.println("Enter row "+(i+1));

			for(j=0;j<n;j++)

			{

				a[i][j]=sc.nextInt();


			}

		}
```

```
        System.out.println("Before Transpose:");
        for(i=0;i<m;i++)
        {
            for(j=0;j<n;j++)
            {
                System.out.print(a[i][j]+" ");
            }
            System.out.println("");
        }

        System.out.println("After Transpose:");
        for(i=0;i<n;i++)
        {
            for(j=0;j<m;j++)
            {
                System.out.print(a[j][i]+" ");
            }
            System.out.println("");
        }

    }
}
```

OUTPUT



CIRCLE:

```
import java.util.Scanner;

class CircleDemo

{

	double radius;

	double area;

	double circum;

	void getData()

	{

		System.out.println("Enter radius:");

		Scanner sc=new Scanner(System.in);

		radius=sc.nextDouble();

	}

	void calc_area()

	{
```

```
        area=3.14*radius*radius;
    }
    void calc_circum()
    {
        circum=2*3.14*radius;
    }
    void display()
    {
        System.out.println("Radius : "+radius+"\nArea : "+area+"\nCircumference : "+circum);
    }


    public static void main(String args[])
    {
        CircleDemo ob=new CircleDemo();
        ob.getData();
        ob.calc_area();
        ob.calc_circum();
        ob.display();
    }
}
```

OUTPUT

```
C:\Users\misaf\Desktop\OOJ-LAB>java CircleMain
Enter radius:
10
Radius : 10.0
Area : 314.0
Circumference : 62.800000000000004
```

ACTOR:

CODE

```
import java.util.Scanner;
class Actor
{
	int id;
	String name;
	int nmovies;
	int nexp;
	float avg;
	static float highavg;
	void getData()
	{
		System.out.println("Enter the id of actor:");
		Scanner sc=new Scanner(System.in);
		id=sc.nextInt();
		System.out.println("Enter name :");
		name=sc.next();
		System.out.println("Enter number of movies:");
		nmovies=sc.nextInt();
		System.out.println("Enter years of experience");
		nexp=sc.nextInt();
	}
	void calc()
	{
```

```
            avg=nmovies/nexp;
        }


}
public class ActorMain
{
        public static void main(String args[])
        {
                Scanner sc=new Scanner(System.in);
                System.out.println("Enter the number of actors:");
                int n,i;
                int p=-1;
                n=sc.nextInt();
                Actor[] obj=new Actor[n];
                Actor.highavg=0;
                for(i=0;i<n;i++)
                {
                        obj[i]=new Actor();
                        System.out.println("Enter details of actor"+(i+1));
                        obj[i].getData();
                        obj[i].calc();
                        if(obj[i].avg>Actor.highavg)
                        {
                                Actor.highavg=obj[i].avg;
                                p=i;
                        }
```

```
            }

            System.out.println("Actor with the highest average is "+obj[p].name+" with the average of : "+obj[p].avg);

      }

}
```

OUTPUT

```
C:\Users\misaf\Desktop\OOJ-LAB>java ActorMain
Enter the number of actors:
2
Enter details of actor1
Enter the id of actor:
1
Enter name :
jake
Enter number of movies:
10
Enter years of experience
3
Enter details of actor2
Enter the id of actor:
2
Enter name :
john
Enter number of movies:
30
Enter years of experience
25
Actor with the highest average is jake with the average of : 3.0
```

COMMAN LINE ARRAY:

CODE

```
import java.io.*;

public class CmdArray

{

      public static void main(String a[])

      {

            int n=a.length;
```

```
double[] b=new double[n];
int i,j;
for(i=0;i<n;i++)
{
	b[i]=Double.parseDouble(a[i]);
}
System.out.println("The array is :");
for(i=0;i<n;i++)
{
	System.out.print(b[i]+" ");
}
System.out.println("");
double[] c=new double[n];
double temp;
for(i=0;i<n;i++)
{
	for(j=i;j<n;j++)
	{
		if(b[i]>b[j])
		{
			temp=b[i];
			b[i]=b[j];
			b[j]=temp;
		}
	}
}
```

```
            System.out.println("Sorted array:");
            for(i=0;i<n;i++)
            {
                System.out.print(b[i]+" ");
            }

    }
}
```

OUTPUT