```java
import java.util.Scanner;

public class transpose {
    Run | Debug
    public static void main(String ss[]) {
        int i, j;
        System.out.println("ENTER NO OF ROWS AND COLUMNS");
        Scanner sc = new Scanner(System.in);
        int row = sc.nextInt();
        int column = sc.nextInt();
        int array[][] = new int[row][column];

        System.out.println("ENTER MATRIX");
        for (i = 0; i < row; i++) {

            for (j = 0; j < column; j++) {
                System.out.println("enter element a[" + i + "][" + j + "]");

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

            }
        }

        System.out.println("MATRIX ENETERED IS :");
        for (i = 0; i < row; i++) {
            for (j = 0; j < column; j++) {
                System.out.print(array[i][j] + "\t");
            }
            System.out.println(" ");
        }

        System.out.println("MATRIX AFTER TRANSPOSE :");
        for (i = 0; i < column; i++) {
```

```java
        for (i = 0; i < row; i++) {

            for (j = 0; j < column; j++) {
                System.out.println("enter element a[" + i + "][" + j + "]");

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


            }
        }


        System.out.println("MATRIX ENETERED IS :");
        for (i = 0; i < row; i++) {
            for (j = 0; j < column; j++) {
                System.out.print(array[i][j] + "\t");
            }
            System.out.println(" ");
        }


        System.out.println("MATRIX AFTER TRANSPOSE :");
        for (i = 0; i < column; i++) {
            for (j = 0; j < row; j++) {
                System.out.print(array[j][i] + "\t");
            }
            System.out.println(" ");
        }


    }
}
```

```
E:\jdk8\bin\ooj lab>javac transpose.java

E:\jdk8\bin\ooj lab>java transpose
ENTER NO OF ROWS AND COLUMNS
3
4
ENTER MATRIX
enter element a[0][0]
1
enter element a[0][1]
2
enter element a[0][2]
3
enter element a[0][3]
4
enter element a[1][0]
5
enter element a[1][1]
6
enter element a[1][2]
7
enter element a[1][3]
8
enter element a[2][0]
9
enter element a[2][1]
10
enter element a[2][2]
11
enter element a[2][3]
12
MATRIX ENETERED IS :
1       2       3       4
5       6       7       8
9       10      11      12
MATRIX AFTER TRANSPOSE :
1       5       9
2       6       10
3       7       11
4       8       12

E:\jdk8\bin\ooj lab>
```

```java
import java.util.Scanner;

public class circledemo {
    Scanner sc = new Scanner(System.in);
    double r;
    static double area, perimeter;

    void accept() {
        System.out.println("ENTER RADIUS OF CIRCLE");
        r = sc.nextDouble();
    }
    void a() {
        area = (3.14 * r * r);

    }
    void p() {
        perimeter = (2 * 3.14 * r);

    }
    Run | Debug
    public static void main(String[] ss) {

        Scanner sc = new Scanner(System.in);
        circledemo c1 = new circledemo();
        c1.accept();
        c1.a();
        c1.p();
        System.out.println("CALCULATED DETAILS");
        System.out.println("AREA :" + circledemo.area);
        System.out.println("PERIMETER :" + circledemo.perimeter);
    }
}
```

```
E:\jdk8\bin\ooj lab>javac circledemo.java

E:\jdk8\bin\ooj lab>java circledemo
ENTER RADIUS OF CIRCLE
3
CALCULATED DETAILS
AREA :28.259999999999998
PERIMETER :18.84

E:\jdk8\bin\ooj lab>java circledemo
ENTER RADIUS OF CIRCLE
5
CALCULATED DETAILS
AREA :78.5
PERIMETER :31.400000000000002
```

```java
import java.util.Scanner;

class actor {
    int noofmovies;
    int yearsofexp;
    String name;
    int id;
    double avg;
    static String highestavg;
    Scanner sc = new Scanner(System.in);

    void average() {
        avg = (noofmovies / (yearsofexp+0.0));
    }

    void accept() {
        System.out.print("NAME :");
        name = sc.next();
        System.out.print("ID :");
        id = sc.nextInt();
        System.out.print("NO OF MOVIES :");
        noofmovies = sc.nextInt();
        System.out.print("YEARS OF EXPERIENCE :");
        yearsofexp = sc.nextInt();
    }

    void display() {
        System.out.println(
                "Name:"+name + "          " +"Id:"+ id + "         " +"Avg:"+ avg + "              " +"No of movies:"+
                noofmovies + "                " +"Experience:"+ yearsofexp);
    }
}
```

```java
                                    noofmovies + "              " +"Experience:"+ yearsofexp);
        }

    }

    class actormain {
        Run | Debug
        public static void main(String ss[]) {
            int n;
            Scanner sc = new Scanner(System.in);
            System.out.println("ENTER NO OF ACTORS DETAILS YOU WANT TO ENTER");
            n = sc.nextInt();
            actor a1[] = new actor[n];

            for (int i = 0; i < n; i++) {
                System.out.println("---------------------------------");
                System.out.println("ENTER ACTOR :" + (i + 1));
                a1[i] = new actor();
                a1[i].accept();
                a1[i].average();
            }

            System.out.println("\n*********************");
            System.out.println(" S.NO  |   NAME   |   ID   |   AVERAGE  |   NO.MOVIES  |  YEARS ");
            System.out.println("_____");
            for (int i = 0; i < n; i++) {
                System.out.print("     " + (i + 1) + ")   ");
                a1[i].display();
                System.out.println("_____");
            }

            double l = 0;
            int index = 0;
```

```java
        System.out.println("_____");
        for (int i = 0; i < n; i++) {
            System.out.print("     " + (i + 1) + ")   ");
            a1[i].display();
            System.out.println("_____");
        }

        double l = 0;
        int index = 0;
        for (int i = 0; i < a1.length; i++) {
            if (a1[i].avg > l) {
                l = a1[i].avg;
                actor.highestavg = a1[i].name;
                index = i + 1;
            }
        }

        System.out.println("\n*************\n");
        System.out.println("HIGHEST AVERAGE AMOUNG ALL ACTOR IS:");
        System.out.println("|" + index + "TH MEMBER IN TABLE " + "\n|AND AVERAGE IS :" + l);
        System.out.println("|ACTOR NAME :" + actor.highestavg);
        System.out.println("\n*************");

    }
}
```

```
Command Prompt                                                    —  □  ✕

E:\jdk8\bin\ooj lab>javac actormain.java

E:\jdk8\bin\ooj lab>java actormain
ENTER NO OF ACTORS DETAILS YOU WANT TO ENTER
3
-----------------------------------
ENTER ACTOR :1
NAME :aaaa
ID :123
NO OF MOVIES :5
YEARS OF EXPERIENCE :3
-----------------------------------
ENTER ACTOR :2
NAME :bbbb
ID :124
NO OF MOVIES :68
YEARS OF EXPERIENCE :47
-----------------------------------
ENTER ACTOR :3
NAME :cccc
ID :125
NO OF MOVIES :45
YEARS OF EXPERIENCE :30

***********************
 S.NO  |   NAME   |   ID   |   AVERAGE  |   NO.MOVIES  |  YEARS
_____
    1)    Name:aaaa        Id:123      Avg:1.6666666666666667        No of movies:5              Experience:3
_____
    2)    Name:bbbb        Id:124      Avg:1.446808510638298         No of movies:68             Experience:47
_____
    3)    Name:cccc        Id:125      Avg:1.5         No of movies:45         Experience:30
_____

*************

HIGHEST AVERAGE AMOUNG ALL ACTOR IS:
|1TH MEMBER IN TABLE
|AND AVERAGE IS :1.6666666666666667
|ACTOR NAME :aaaa

*************
```

```java
class CmdD{
    Run | Debug
    public static void main(String ss[]){
        double[] ssa = new double[ss.length];
        for(int i = 0;i<ss.length;i++){
            ssa[i] = Double.parseDouble(ss[i]);
        }
        for(int i=0;i<ss.length;i++){
            for(int j=i;j<ssa.length;j++){
                if(ssa[i]>ssa[j]){
                    double temp = ssa[i];
                    ssa[i] = ssa[j];
                    ssa[j] = temp;
                }

            }
        }


        for(int i=0;i<ss.length;i++){
          System.out.println(ssa[i] + " ");

        }


    }
}
```

```
E:\jdk8\bin\ooj lab>javac CmdD.java

E:\jdk8\bin\ooj lab>java CmdD 12 34.5 1.3 5.7
1.3
5.7
12.0
34.5

E:\jdk8\bin\ooj lab>java CmdD 12 34.5 1.3 5.7 5.6 1.31 1.27 34.4
1.27
1.3
1.31
5.6
5.7
12.0
34.4
34.5
```