```java
import java.util.*;
class transpose
{
    int a[][],b[][];
    int n,m;
    Scanner sc=new Scanner(System.in);
    transpose(){
    System.out.println("enter the rows anc cols");
    n=sc.nextInt();
    m=sc.nextInt();
    a=new int[n][m];
    b=new int[m][n];
    }
    void accept()
    {
    System.out.println("enter the elements into the matrix");
    for(int i=0;i<n;i++)
    {
        for(int j=0;j<m;j++)
        {
            a[i][j]=sc.nextInt();

        }
    }
    }
    void trans()
    {
        for(int i=0;i<n;i++)
        {
            for(int j=0;j<m;j++)
            {
                b[j][i]=a[i][j];
            }
        }

    }
    void display()
    {
        System.out.println("before transpose");
        for(int i=0;i<n;i++)
        {
            for(int j=0;j<m;j++)
            {
                System.out.print(a[i][j]);
            }
             System.out.println();
        }
        System.out.println("after transpose");
        for(int i=0;i<m;i++)
        {
            for(int j=0;j<n;j++)
            {
                System.out.print(b[i][j]);
            }
            System.out.println();
        }

    }


}

class transposeMain
{
    public static void main(String args[])
    {
        transpose obj=new transpose();
        obj.accept();
        obj.trans();
        obj.display();
    }
}
```

```
[Arvinds-MacBook-Pro:ooj Arvind$ java transposeMain
enter the rows anc cols
2
3
enter the elements into the matrix
1
2
3
4
5
6
before transpose
123
456
after transpose
14
25
36
Arvinds-MacBook-Pro:ooj Arvind$
```

```java
import java.util.*;
class CircleDemo
{
   Double radius,area,perimeter;
   Scanner sc=new Scanner(System.in);
   CircleDemo()
   {
    radius=0.0;
    area=0.0;
    perimeter=0.0;
   }
   void accept()
   {
    System.out.println("enter the radius");
    radius=sc.nextDouble();

   }
   void area()
   {
    area=3.14*radius*radius;
   }
   void perimeter()
   {
    perimeter=2*3.14*radius;
   }
   void display()
   {
    System.out.println("radius:"+radius);
    System.out.println("area:"+area);
    System.out.println("perimeter:"+perimeter);

   }
   public static void main(String args[])
   {
    CircleDemo a=new CircleDemo();
    a.accept();
    a.area();
    a.perimeter();
    a.display();
   }
}
```

```
[Arvinds-MacBook-Pro:ooj Arvind$ java CircleDemo
enter the radius
3,5
radius:3.5
area:38.465
perimeter:21.98
Arvinds-MacBook-Pro:ooj Arvind$
```

```java
import java.util.*;
class Actor
{
    String id,name;
    int no_of_movies,no_of_years_exp;
    double average_performance;
    Scanner sc=new Scanner(System.in);
    void accept()
    {
        System.out.println("enter the id");
        id=sc.next();
        System.out.println("enter the name");
        name=sc.next();
        System.out.println("enter the no of movies acted in");
        no_of_movies=sc.nextInt();
        System.out.println("enter the no of years of experience");
        no_of_years_exp=sc.nextInt();


    }
    void average()
    {
        average_performance=(double)no_of_movies/no_of_years_exp;
    }
    void highest(Actor a[],int size)
    {
        double big=a[0].average_performance;
        int pos=0;
        for(int i=0;i<size;i++)
        {
            if(big<=a[i].average_performance)
            {
                big=a[i].average_performance;
                pos=i;
            }
        }
        System.out.println("the actor with highest average performance is "+a[pos].name);



    }

```

```
class ActorMain
{
    public static void main(String args[])
    {
        Actor a[];
        int n;
        Scanner sc=new Scanner(System.in);
        System.out.println("enter the no of actors");
        n=sc.nextInt();
        a=new Actor[n];
        for(int i=0;i<n;i++)
        {
            System.out.println("Actor "+(i+1));
            a[i]=new Actor();
            a[i].accept();
            a[i].average();
        }
        Actor b=new Actor();
        b.highest(a,n);
    }

}
```

```
Arvinds-MacBook-Pro:ooj Arvind$ java ActorMain
enter the no of actors
4
Actor 1
enter the id
123
enter the name
asf
enter the no of movies acted in
30
enter the no of years of experience
2
Actor 2
enter the id
1234
enter the name
asfd
enter the no of movies acted in
40
enter the no of years of experience
2
Actor 3
enter the id
12345
enter the name
asdfg
enter the no of movies acted in
50
enter the no of years of experience
2
Actor 4
enter the id
123456
enter the name
asdfgh
enter the no of movies acted in
60
enter the no of years of experience
2
the actor with highest average performance is asdfgh
```

```java
import java.util.*;
class sort
{
    static
    {
        System.out.println("enter the elements into array");
    }
    public static void main(String ss[])
    {
        int a[],x;
        x=ss.length;
        System.out.println("no of elements in the array "+ss.length);
        a=new int[x];
        for(int i=0;i<ss.length;i++)
        {
            a[i]=Integer.parseInt(ss[i]);

        }
        for (int i = 0; i < x-1; i++)
            for (int j = 0; j < x-i-1; j++)
                if (a[j] > a[j+1])
                {

                    int temp = a[j];
                    a[j] = a[j+1];
                    a[j+1] = temp;
                }
    System.out.println("before sort:");
    for(int i=0;i<x;i++)
    {

        System.out.print(ss[i]);
    }
     System.out.println();
     System.out.println("after sort:");
    for(int i=0;i<x;i++)
    {

        System.out.print(a[i]);
    }
    System.out.println();
}
```

```
Arvinds-MacBook-Pro:ooj Arvind$ java sort 2 3 4 1 9
enter the elements into array
no of elements in the array 5
before sort:
23419
after sort:
12349Arvinds-MacBook-Pro:ooj Arvind$
```