EAD LAB #7

Task 1

Write a program that take N numbers from user and store in array and calculate average of numbers.

Sample Output

How many numbers you want to Enter : 4

Enter Number 1: 10

Enter Number 2: 8

Enter Number 3: 12

Enter Number 4: 10

Numbers you entered are : 10, 8, 12, 10

Average = 10

Note:

Code for array declaration

```
int[] array = new int[size];
```

Task 2

Write a program to compute Area and perimeter of Rectangle and circle by using following classes.

There will be three classes.

1. **Shape class** (Base Class)

```
public class Shape
 {
     public String name { get; set; }
     public double area { get; set; }
     public double perimeter { get; set;}

     public void display()
     {
         Console.WriteLine("Name: " + name);
         Console.WriteLine("Area: " + area);
         Console.WriteLine("Perimeter: " + perimeter);
     }
 }
```

2. **Rectangle Class**

This class is inherited from Shape class

```
public class Rectangle : Shape
{
  public double length { get; set; }
  public double width { get; set; }

  public void computeArea()
  {
      //Write code to calculate Area
  }
  public void computePerimeter()
  {
      //Write code to calculate Perimeter
  }
}
```

3. Circle Class

```
public class Circle: Shape
{
  public double radius { get; set; }

    public void computeArea()
    {
        //Code to compute Area
    }
    public void computePerimeter()
    {
        //Code to calculate Perimeter
    }
}
```

Note:

Area of circle = 3.14 * R* R (R is radius of circle)

Perimeter of circle = 2* 3.14 *R

To get **input** from user

```
String input = Console.ReadLine();
double value = Convert.ToDouble(input);
```

Use **display()** method to print values of area and perimeter

Sample Output

For Rectangle
Enter length: 5
Enter Width: 6

Name = Rectangle
Area = 30
Perimeter = 22

For Circle
Enter radius: 5

Name = Circle
Area = 78.5
Perimeter = 31.4