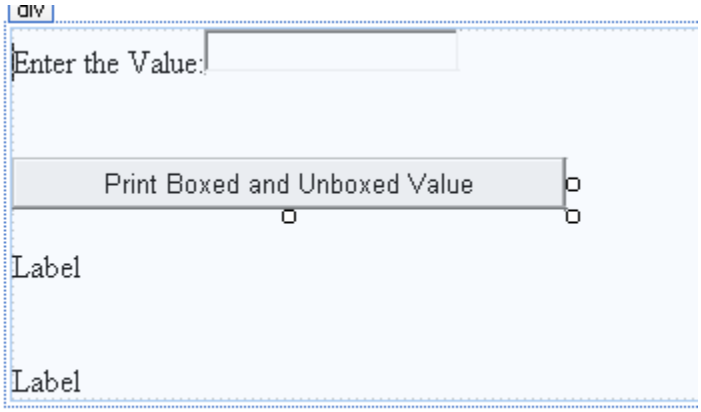
Practical No 02

a) Create an application to print on screen the output of adding, subtracting, multiplying and dividing two numbers entered by the user in C#.

GUI:



Program Code:

.aspx

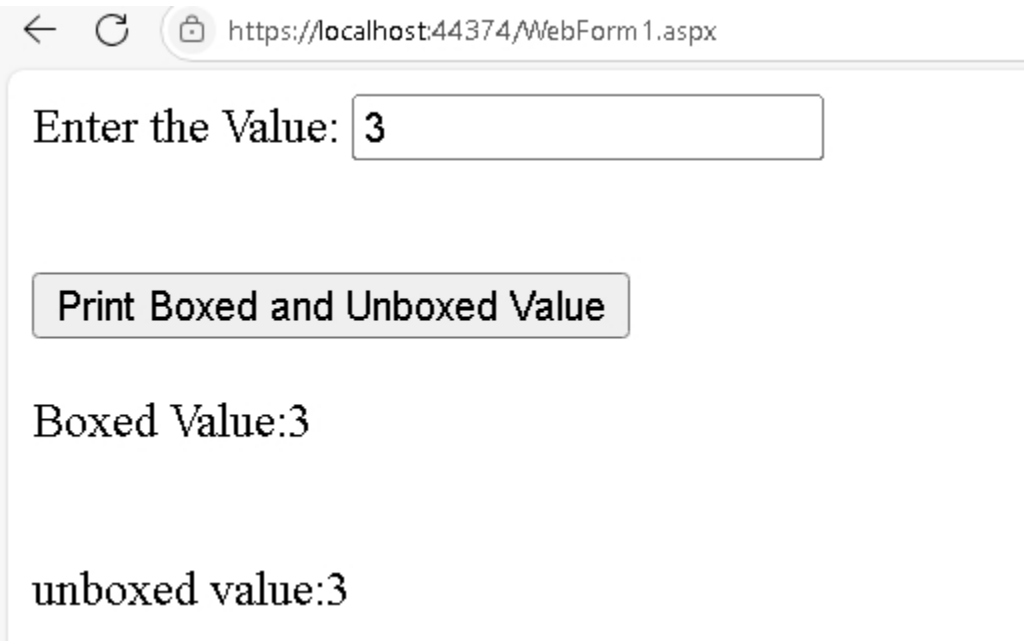
```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <div>
            <asp:Label ID="Label1" runat="server" Text="Enter the Value:"></asp:Label>
            <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
            <br />
            <br />
            <br />
            <asp:Button ID="Button1" runat="server" OnClick="Button1_Click" Text="Print Boxed and Unboxed Value" />
            <br />
            <br />
            <asp:Label ID="Label2" runat="server" Text="Label"></asp:Label>
            <br />
            <br />
```

```
            <br />
            <asp:Label ID="Label3" runat="server" Text="Label"></asp:Label>
            <br />
        </div>
    </form>
</body>
</html>
```

.aspx.cs

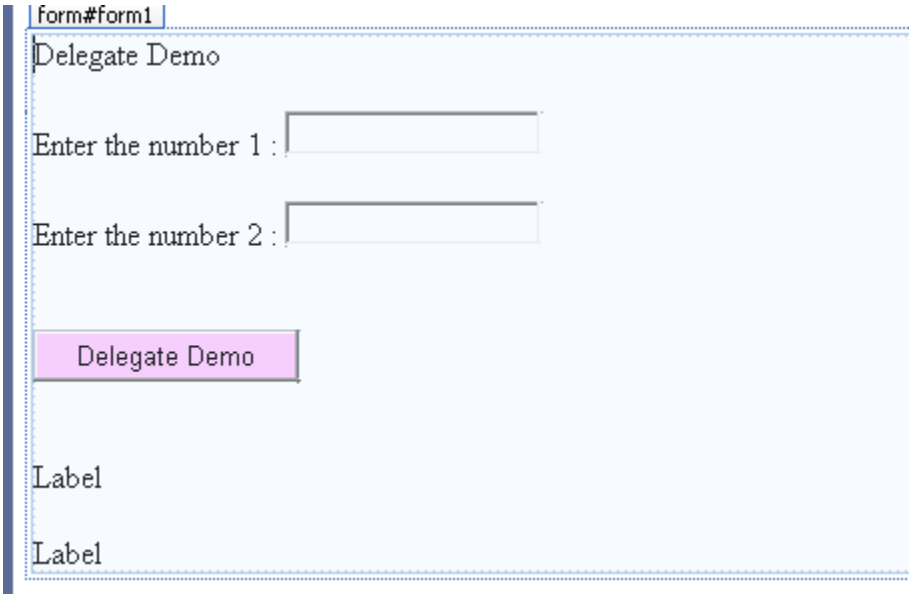
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace _52_54_2a
{
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {

        }

        protected void Button1_Click(object sender, EventArgs e)
        {
            int valueType = Convert.ToInt32(TextBox1.Text);
            object boxed = valueType;
            Label2.Text = "Boxed Value:" + boxed;
            int unboxed = (int)boxed;
            Label3.Text = "unboxed value:" + unboxed;

        }
    }
}
```

Output:



b) Create a simple application to perform addition and subtraction using delegate.

GUI:



Program Code:

.asps

<!DOCTYPE html>

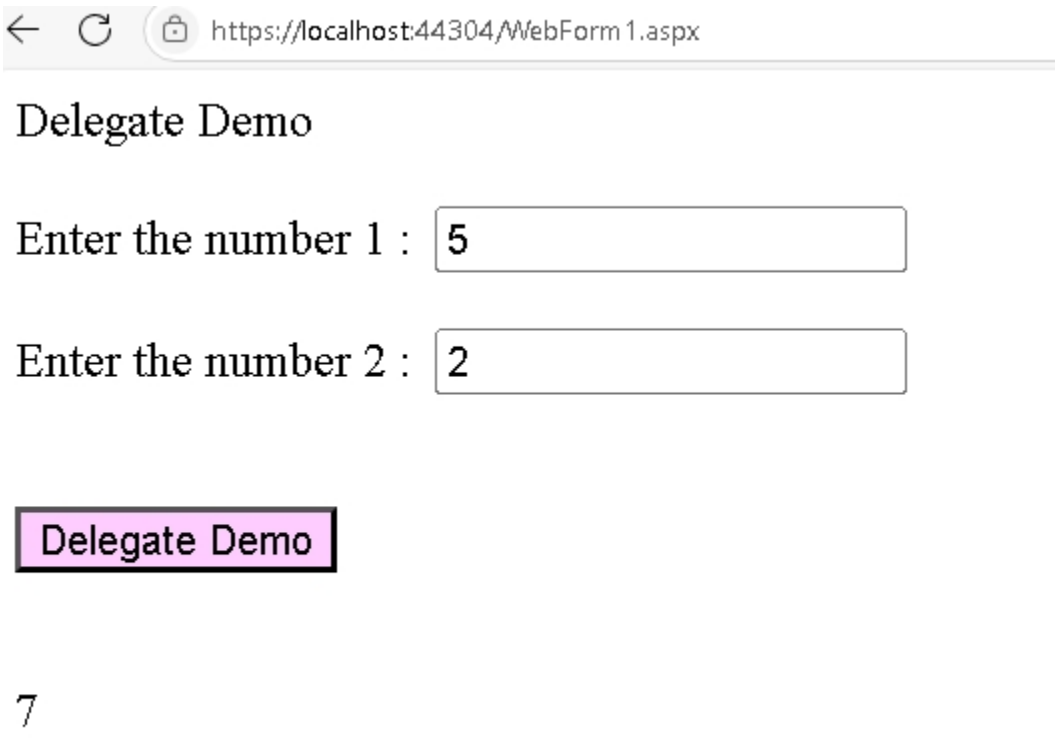
```
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
   <title></title>
</head>
<body>
   <form id="form1" runat="server">
      Delegate Demo<br />
      <br />
      <asp:Label ID="Label1" runat="server" BackColor="White" Text="Enter the number 1
:"></asp:Label>
 <asp:TextBox ID="TextBox1" runat="server"></asp:TextBox>
      <br />
      <br />
      <asp:Label ID="Label2" runat="server" Text="Enter the number 2 :"></asp:Label>
 <asp:TextBox ID="TextBox2" runat="server"></asp:TextBox>
      <br />
      <br />
      <br />
      <asp:Button ID="Button1" runat="server" BackColor="#FFCCFF" OnClick="Button1_Click"
Text="Delegate Demo" />
      <br />
      <br />
      <br />
      <asp:Label ID="Label3" runat="server" Text="Label"></asp:Label>
      <br />
      <br />
      <asp:Label ID="Label4" runat="server" Text="Label"></asp:Label>
   </form>
</body>
</html>
```

.asps.cs

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Reflection.Emit;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace _5254_2b
{
```

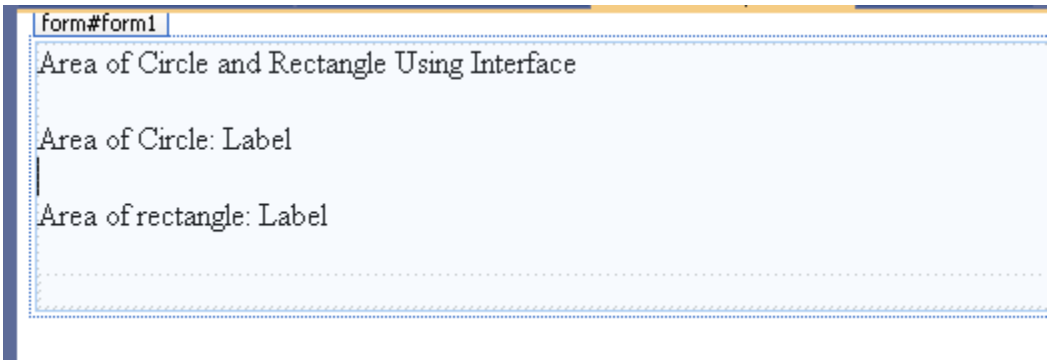
```
public delegate int MathOperation(int a, int b);
public partial class WebForm1 : System.Web.UI.Page
{
        int Add(int a, int b)
        {
            return a + b;
        }
        int Subtract(int a, int b)
        {
            return a - b;
        }



    protected void Button1_Click(object sender, EventArgs e)
    {
    int x = Convert.ToInt32(TextBox1.Text);
    int y = Convert.ToInt32(TextBox2.Text);

    MathOperation add = new MathOperation(Add);
    MathOperation subtract = new MathOperation(Subtract);

    Label3.Text = add(x, y).ToString();
    Label4.Text = subtract(x, y).ToString();
}
}
}
```

Output:



c) Create a simple application to demonstrate use of the concept of interfaces.

GUI:



Program Code:
.asps

```
<!DOCTYPE html>

<html xmlns="http://www.w3.org/1999/xhtml">
```

```
<head runat="server">
    <title></title>
</head>
<body>
    <form id="form1" runat="server">
        <asp:Label ID="Label1" runat="server" Text="Area of Circle and Rectangle Using Interface"></asp:Label>
        <br />
        <br />
        <asp:Label ID="Label2" runat="server" Text="Area of Circle: "></asp:Label>
        <asp:Label ID="Label4" runat="server" Text="Label"></asp:Label>
        <br />
        <br />
        <asp:Label ID="Label3" runat="server" Text="Area of rectangle: "></asp:Label>
        <asp:Label ID="Label5" runat="server" Text="Label"></asp:Label>
        <br />
        <div>
        </div>
    </form>
    <p>
         </p>
</body>
</html>
```

.**asps.cs**

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;

namespace _5220_2c
{
    interface Area
    {
        double show(double s, double t);
    }
    class Rect : Area
    {
        public double show (double s, double t)
        {
            return s * t;
```

```
        }
    }
    class Circle : Area
    {
        public double show(double s, double t)
        {
            return (3.14 * s * s);
        }
    }
    public partial class WebForm1 : System.Web.UI.Page
    {
        protected void Page_Load(object sender, EventArgs e)
        {
            Rect r1 = new Rect();
            double x = r1.show(3, 4);
            Circle c1 = new Circle();
            double y = c1.show(3, 4);
            Label4.Text = x.ToString();
            Label5.Text = y.ToString();
        }
    }
}
```

Output: