Aim: Create a simple window form application for calculator.

Code:

Form1.cs

```
using
            System;
                            using
System.Collections.Generic; using
System.ComponentModel;
using System.Data; using
System.Drawing; using
System.Linq; using
System.Text; using
System. Windows. Forms;
namespace Calculator
{ public partial class Form1 : Form
  { char op;
    int t1, t2;
    public Form1()
       InitializeComponent();
    private void Form1_Load(object sender, EventArgs e) {
    }
    private void button9_Click(object sender, EventArgs e)
    { textBox1.Text += "9";
    private void button1_Click(object sender, EventArgs e)
    { textBox1.Text += "1";
    private void button2_Click(object sender, EventArgs e)
    { textBox1.Text += "2";
    private void button3_Click(object sender, EventArgs e)
    { textBox1.Text += "3";
    private void button4_Click(object sender, EventArgs e)
    { textBox1.Text += "4";
    private void button5_Click(object sender, EventArgs e)
    { textBox1.Text += "5";
```

```
AWT LAB
      private void button6_Click(object sender, EventArgs e)
      { textBox1.Text += "6";
      private void button7_Click(object sender, EventArgs e)
      { textBox1.Text += "7";
      private void button8_Click(object sender, EventArgs e)
      { textBox1.Text += "8";
      private void button10_Click(object sender, EventArgs e)
      { textBox1.Text += "0";
      }
      private void button16_Click(object sender, EventArgs e)
      { textBox1.Text = " ";
      }
      private void button11_Click(object sender, EventArgs e)
      { t1 = Convert.ToInt32(textBox1.Text);
        textBox1.Text = " "; op = '+';
      }
      private void button15_Click(object sender, EventArgs e)
      { t1 = Convert.ToInt32(textBox1.Text);
        textBox1.Text = " "; op = '-';
      private void button14_Click(object sender, EventArgs e)
      { t1 = Convert.ToInt32(textBox1.Text);
        textBox1.Text = " "; op = '*';
      }
      private void button13_Click(object sender, EventArgs e)
      { t1 = Convert.ToInt32(textBox1.Text);
        textBox1.Text = ""; op = '/';
      private void button12_Click(object sender, EventArgs e)
        t2 = Convert.ToInt32(textBox1.Text);
```

textBox1.Text = Convert.ToString(t1) + "+" + Convert.ToString(t2) + "=" + Convert.ToString(t1) + "+" + Convert.ToString(t2) + "=" + Convert.ToString(t3) + "+" + Convert.ToString(t3) + "+ Convert.ToString(t3) + "+ Convert.ToString(t3) + (Convert.ToString(t3) + (Convert.ToString(t

'+':

t2);

switch (op) { case

Output: -

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Aim: Design account class to handle different operations such as open, deposit, withdraw, check balance. Design GUI to demonstrate the use of this class.

Code:

Form1.cs

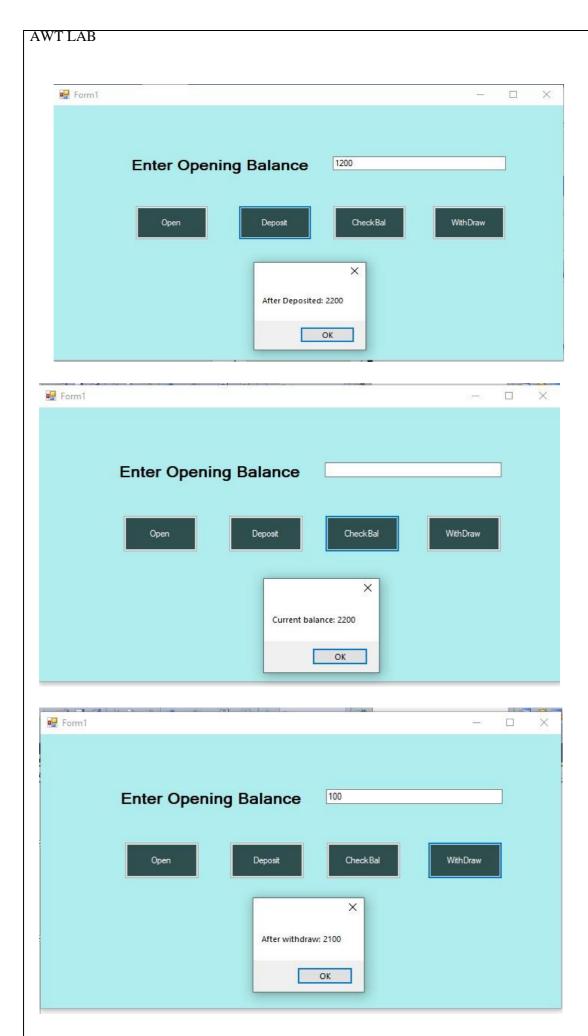
```
using
            System;
                            using
System.Collections.Generic; using
System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System. Windows. Forms;
namespace Bank
{ public partial class Form1 : Form
  { bank bankobj = new bank();
    public Form1()
    {
       InitializeComponent();
    }
    private void label1_Click(object sender, EventArgs e) {
    }
    private void button1_Click(object sender, EventArgs e)
    { deposit. Visible = true;
       checkbal. Visible = true;
       withdraw.Visible =
       true:
       int t1 = Convert.ToInt32(textBox1.Text);
       int b1=bankobj.open(t1);
       MessageBox.Show("Opening balance: "+b1);
       textBox1.Clear();
    private void button4_Click(object sender, EventArgs e)
    { int t2 = Convert.ToInt32(textBox1.Text);
       int dep =bankobj.deposit(t2);
       MessageBox.Show("After Deposited: " + dep);
       textBox1.Clear();
    }
```

```
private void Form1_Load(object sender, EventArgs e) {
       deposit. Visible = false;
       checkbal. Visible = false;
       withdraw. Visible = false;
    }
    private void checkbal_Click(object sender, EventArgs e) {
       int chk = bankobj.check();
       MessageBox.Show("Current balance: " + chk);
       textBox1.Clear();
    private void withdraw_Click(object sender, EventArgs e)
    { int t3 = Convert.ToInt32(textBox1.Text);
       int wd = bankobj.withdraw(t3);
       MessageBox.Show("After withdraw: " + wd);
       textBox1.Clear();
    }
}
```

Bank.cs

```
using System; using
System.Collections.Generic;
using System.Linq; using
System.Text;
namespace Bank
{ class bank
  { public int bal;
     public bank()
     \{ bal = 0; 
     }
    public int open(int openbal)
     { bal +=openbal;
       return bal;
     }
    public int deposit(int depbal)
     { bal += depbal;
       return bal;
```

```
AWT LAB
      public int withdraw(int drawbal)
      { bal -= drawbal;
        return bal;
      public int check() { int
        check = bal; return
        check;
Output:
  Form1
                                                                          X
             Enter Opening Balance
                  Open
   ₽ Form1
                                                                      Enter Opening Balance
                                            1000
                                               Check Bal
                                                              WithDraw
                                 Opening balance: 1000
                                           OK
```



Aim: Create windows form application to take array element form user & display that element on label. Also sort the array element & display the sorted list.

Code:

Form1.cs

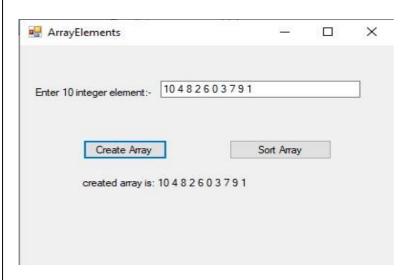
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System. Windows. Forms;
namespace Array
{ public partial class Form1 : Form
  { int[] num;
    public
    Form1()
       InitializeComponent();
    }
    private void button1_Click(object sender, EventArgs e)
    { num = new int[10]; string
       s = textBox1.Text;
       string[] a = s.Split(' ');
       int c = 0;
       foreach (string i in a)
       \{ num[c] = int.Parse(i); \}
         c++;
       } label2.Text = "created array is:"; for
       (int j = 0; j < 10; j++) label2.Text += ""
       + num[j].ToString();
    private void button2_Click(object sender, EventArgs e)
    { for(int i=0;i<num.Length;i++)
       for (int j = 0; j < i; j++)
          { if (num[j] > num[i])
            { int temp = num[j];
             num[j]=num[i];
             num[i]=temp;
```

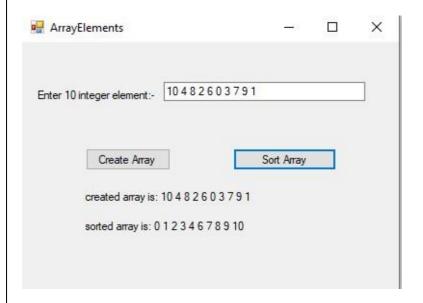
```
} label3.Text = "sorted
array is:";
for (int j = 0; j < 10; j++)
    label3.Text += " " + num[j].ToString();
}

private void label3_Click(object sender, EventArgs e) {
}

}
</pre>
```

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Aim: Create windows form application to demonstrate array of object to display employee details like employee name and age.

Code:

Form1.cs

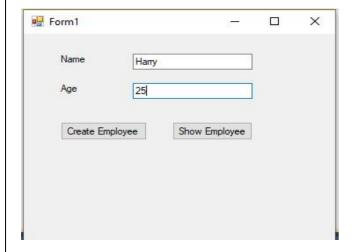
```
using System;
usingSystem.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Ling;
using System.Text;
using System.Windows.Forms;
namespace Employee
{ public partial class Form1 : Form
  { public employee[] em = new employee[3];
    string name; int age; int count = 0; public
    Form1()
       InitializeComponent();
    private void Form1_Load(object sender, EventArgs e) {
    }
    private void button1_Click(object sender, EventArgs e)
        name = textBox1.Text; age
       Convert.ToInt32(textBox2.Text);
       em[count] = new employee(name, age);
                           textBox1.Text="":
       count++:
       textBox2.Text="";
    private void button2_Click(object sender, EventArgs e)
    { for (int i = 0; i < em.Length; i++)
       { label3.Text += "name:" +" "+ em[i].name +" "+ "age:" + em[i].age + "\n";
}
```

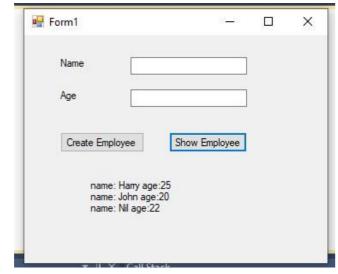
Employee.cs:

```
awt Lab

using System; using
System.Collections.Generic; using
System.Linq; using System.Text;

namespace Employee
{ public class employee
    {
        public string name; public int
        age; public employee(string n,
        int a)
        { name = n;
        age = a;
      }
    }
}
```





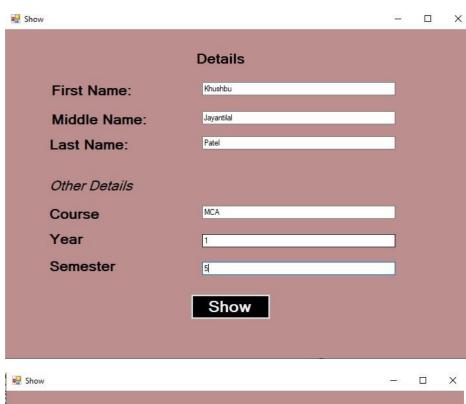
Aim: Design a GUI to demonstrate single inheritance.

Code:

```
Form1.cs
```

```
using
             System;
                            using
System.Collections.Generic; using
System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Ling;
using System. Text;
using System. Windows. Forms;
namespace SingleInheritance
{ public partial class Form1 : Form
  { public Form1()
     {
       InitializeComponent();
     }
    private void button1_Click(object sender, EventArgs e)
     { int t5 = Convert.ToInt32(textBox5.Text);
       int t6 = Convert.ToInt32(textBox6.Text);
       addInfo ai = new addInfo(textBox1.Text,textBox2.Text,textBox3.Text,textBox4.Text,t5,t6);
    label10.Text = ai.processInfo() + ai.processadd(); }
}
addInfo.cs:
using System;
using System.Collections.Generic;
using System.Ling;
using System.Text;
namespace SingleInheritance
{
  class addInfo:basicInfo
  { public string course;
     public int sem, year;
     public addInfo() {
     public addInfo(string afn, string amn, string aln, string cn, int s, int y) {
```

```
AWT LAB
         fn = afn;
         mn = amn;
         ln = aln;
         course = cn;
         sem = s;
         year = y;
      public string processadd() { return "\n" + "Course Name: " + course + "Semester:
      " + sem + "Year: " + year; }
 }
 basicInfo.cs:
 using System;
 using System.Collections.Generic;
 using System.Linq;
 using System.Text;
 namespace SingleInheritance
 { class basicInfo
   { public string fn, ln, mn;
      public basicInfo()
      { }
      public basicInfo(string f, string m, string l) {
        fn = f; ln = l;
        mn = m;
     public string processInfo()
      { return "Welcome " + fn + " "+mn+" "+ln;
   }
 }
```





Aim: Design a GUI to demonstrate runtime polymorphism using abstract class.

Code:

Form1.cs

```
using
            System;
                            using
System.Collections.Generic; using
System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System. Windows. Forms;
namespace Abstract
{ public partial class Form1 : Form
  { public Form1()
    {
       InitializeComponent();
    private void button1_Click(object sender, EventArgs e)
       Rectangle r= new Rectangle(); int t1 =
       Convert.ToInt32(textBox1.Text); int t2
       = Convert.ToInt32(textBox2.Text);
       r.set(t1, t2);
       int
                             Convert.ToInt32(r.Area());
              result
       MessageBox.Show("Area of Rectangle: "+result); }
  }
}
```

Rectangle.cs:

```
using System;
using System.Collections.Generic;
using System.Linq; using
System.Text;

namespace Abstract
{ class Rectangle:Shape
      { public override int Area()
            { return length * breadth;
            }
        }
}
```

Shape.cs:

using

```
System.Collections.Generic; using
System.Linq; using System.Text;

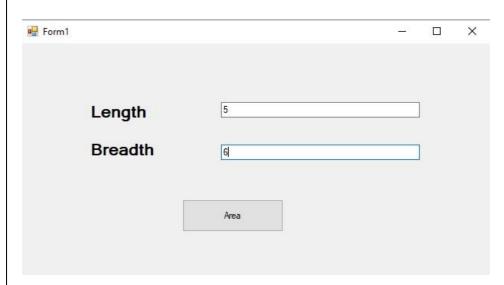
namespace Abstract
{ abstract class Shape
      { public int length, breadth; public
            void set(int a = 0, int b = 0) {
                 length = a;
                 breadth = b;
            }

            public abstract int Area();
        }
}
```

System;

using

Output:



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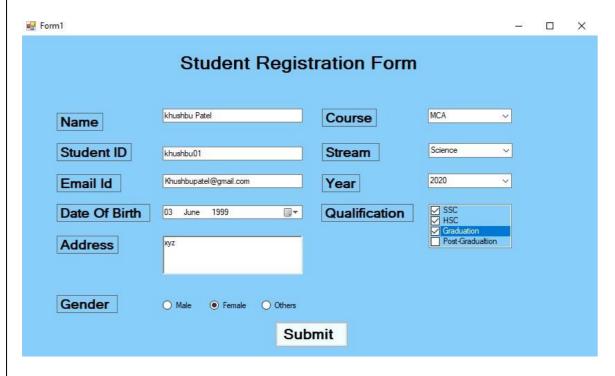


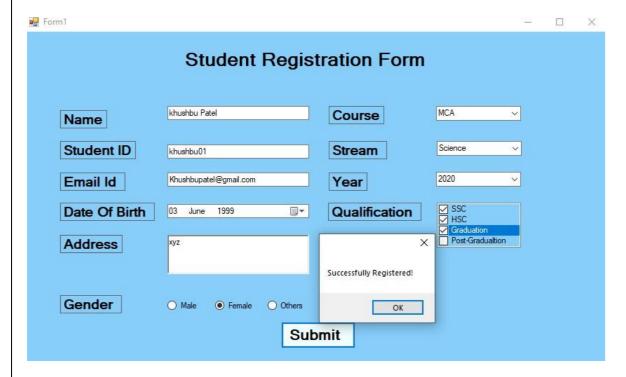
Aim: Design ASP.net Web Application Registration form of using web server controllers.

Code:

Form1.cs

```
using
            System;
                            using
System.Collections.Generic; using
System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System. Windows. Forms;
namespace Registration
{ public partial class Form1 : Form
  { public Form1()
    {
       InitializeComponent();
     } private void label1_Click(object sender,
EventArgs e) {
    }
    private void Form1_Load(object sender, EventArgs e) {
    }
    private void label2_Click(object sender, EventArgs e) {
    private void button1_Click(object sender, EventArgs e)
       MessageBox.Show("Successfully Registered!"); }
}
```





Aim: Create ASP.NET program based on validation control.

Code:

Register.aspx

```
Inherits="Registration" %>
 <!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"</p>
 "http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
 <a href="http://www.w3.org/1999/xhtml">
       <head runat="server">
             <title>Untitled Page</title>
             </head>
 <body>
 <form id="form1" runat="server">
 <div style="height: 529px; width: 831px">
  <br/>>
       <center>
       <asp:Label ID="Label1" runat="server" Text="Registration" Font-Size="20pt"></asp:Label>
       </center>
  <br/>
  <br/>>
       <asp:Label ID="Label2" runat="server" Font-Size="18pt" Text="Name: "></asp:Label>
       <asp:TextBox ID="TextBox1" runat="server" ontextchanged="TextBox1 TextChanged"
       Width="382px">
       </asp:TextBox>
       <asp:RequiredFieldValidator1D="RequiredFieldValidator1" runat="server"
       ControlToValidate="TextBox1" ErrorMessage="Please enter name!">
       </asp:RequiredFieldValidator>
   <br/>>
   <br/>
       <asp:Label ID="Label3" runat="server" Font-Size="18pt" Text="Address: "></asp:Label>
       <asp:TextBox ID="TextBox2" runat="server" ontextchanged="TextBox2_TextChanged"</pre>
       Width="382px" Height="53px" Rows="3" TextMode="MultiLine"> </asp:TextBox>
       <asp:RequiredFieldValidator ID="RequiredFieldValidator2" runat="server"
       ControlToValidate="TextBox2" ErrorMessage="Please enter address">
       </asp:RequiredFieldValidator>
   <br/>hr />
    <br />
       <asp:Label ID="Label4" runat="server" Font-Size="18pt" Text="Phone: "></asp:Label>
             
       <asp:TextBox ID="TextBox3" runat="server" ontextchanged="TextBox3_TextChanged"
NAME: Patel Arun Ramjanak
                                                                               ROLL NO:21
```

```
Width="382px" MaxLength="10"></asp:TextBox>
      <asp:RequiredFieldValidator ID="RequiredFieldValidator4" runat="server"
      ControlToValidate="TextBox3" ErrorMessage="Please enter phone number!">
      </asp:RequiredFieldValidator>
   <br/>>
    <hr />
      <asp:Label ID="Label5" runat="server" Font-Size="18pt" Text="Age: "></asp:Label>
       <asp:TextBox ID="TextBox4" runat="server" ontextchanged="TextBox4_TextChanged"</pre>
      Width="382px"></asp:TextBox>
      <asp:RangeValidator ID="RangeValidator2" runat="server"
      ControlToValidate="TextBox4" ErrorMessage="Please enter age between 18-60"
      MaximumValue="60" MinimumValue="18" Type="Integer"></asp:RangeValidator>
    <br />
    <br/>>
     <asp:Label ID="Label6" runat="server" Font-Size="18pt" Text="Email: "></asp:Label>
     <asp:TextBox ID="TextBox5" runat="server" ontextchanged="TextBox5_TextChanged"</pre>
      Width="382px"></asp:TextBox>
      <asp:RegularExpressionValidator1" runat="server"
      ControlToValidate="TextBox5" ErrorMessage="Please enter correct email id!"
      ValidationExpression="\w+([-+.']\w+)*@\w+([-.]\w+)*\.\w+([-.]\w+)*">
      </asp:RegularExpressionValidator>
   <br/>>
   <br/>br />
      <asp:Label ID="Label7" runat="server" Font-Size="18pt" Text="Password: "></asp:Label>
       <asp:TextBox ID="TextBox6" runat="server" ontextchanged="TextBox6_TextChanged"
      Width="382px" TextMode="Password"></asp:TextBox>
      <asp:RequiredFieldValidator ID="RequiredFieldValidator3" runat="server"
      ControlToValidate="TextBox1" ErrorMessage="Please enter password!">
      </asp:RequiredFieldValidator>
  <br/>>
  <br/>>
      <asp:Label ID="Label8" runat="server" Font-Size="18pt" Text="Re-Password: "></asp:Label>
      <asp:TextBox ID="TextBox7" runat="server" ontextchanged="TextBox1_TextChanged"</pre>
      Width="347px" TextMode="Password"></asp:TextBox>
      <asp:CompareValidator ID="CompareValidator1" runat="server" ControlToCompare="TextBox6"
      ControlToValidate="TextBox7" ErrorMessage="Password not matching!">
      </asp:CompareValidator>
  <br/>>
  <br/>>
      <asp:Button ID="Button1" runat="server" Text="Submit" Font-Size="18pt" />
  <br/>
<br/>>
</div>
```

WT LAB		
Output	:	
< → G	① localhost:2659/Validation/Registration.aspx	
	Registration	
Name:		Please enter name!
Address:		Please enter address
Phone:	1234	Please enter phone number!
Age:		
Email:	5	Please enter age between 18-60
	5	Please enter correct email id!
Password:		Please enter password!
Re-Passwo	ord:	Password not matching!
Submit		
$\leftarrow \ \rightarrow \ \mathtt{G}$	① localhost:2659/Validation/Registration.aspx	
	Registration	
	Registration	
Name:	khushbu	
	<u>virar</u> (west)	
Address:		
Phone:	1234567890	
Age:	56	
Email:	khushbu@gmail.com	
Password:		
Re-Passwo		
	ord.	
Submit		

Aim: Create ASP.NET program using master page & themes and skins.

Code:

SkinFile:



Default skin template. The following skins are provided as examples only.

1.Named control skin. The SkinId should be uniquely defined because duplicate SkinId's per control type are not allowed in the same theme.

```
<asp:GridView runat="server" SkinId="gridviewSkin" BackColor="White" > 
  <AlternatingRowStyle BackColor="Blue" /> 
  </asp:GridView>
```

2.Default skin. The SkinId is not defined. Only one default control skin per control type is allowed in the same theme.

```
<asp:Image runat="server" ImageUrl="~/images/image1.jpg" />
--%>
```

<asp:Button runat="server" BackColor="#08260f" ForeColor="White" font-size="18px" font-name="Times New Roman"/>

<asp:Label runat="server" Backcolor="White" ForeColor="Black" font-size="20px" font-name="Times New Roman"/>

Style.css:

```
body
{ background-color:#d5f5dc; font-
family:Times New Roman;
font-size:14px;
}
.footer
{ background-color:Lime;
 height:50px;
 position:relative;
 top:450px;
 margin:0px 0px 10px;
 padding:5px;
 color:Black;
}
```

MasterPage.master:

```
<% @ Master Language="C#" AutoEventWireup="true" CodeFile="MasterPage.master.cs"</p>
Inherits="MasterPage" %>
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Transitional//EN"</p>
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-transitional.dtd">
<a href="http://www.w3.org/1999/xhtml">
<head runat="server">
  <title></title>
  k href="App_Themes/Theme1/Style.css" rel="stylesheet" type="text/css" />
  <asp:ContentPlaceHolder id="head" runat="server">
  </asp:ContentPlaceHolder>
</head>
<body>
  <form id="form1" runat="server">
  <div class="wrapper">
    <div class="menu">
    ul>
      <a href="home.aspx">Home Page</a>
      <a href="category.aspx">Category</a>
      <a href="about.aspx">About Us</a>
    </div>
  <div class="content">
    <asp:ContentPlaceHolder id="ContentPlaceHolder1" runat="server">
    </asp:ContentPlaceHolder>
  </div>
  <div class="footer">
  <center><h1>Copyright @viva.com</h1></center>
  </div>
  </div>
  </form>
</body>
</html>
```

MasterPage2.master:

```
<%@ Master Language="C#" MasterPageFile="~/MasterPage.master" AutoEventWireup="true" CodeFile="MasterPage2.master.cs" Inherits="MasterPage2" %>
<asp:Content ID="Content1" ContentPlaceHolderID="head" Runat="Server"> </asp:Content> <asp:Content ID="Content2" ContentPlaceHolderID="ContentPlaceHolder1" Runat="Server"> This is a nested master page!
</asp:Content>
```

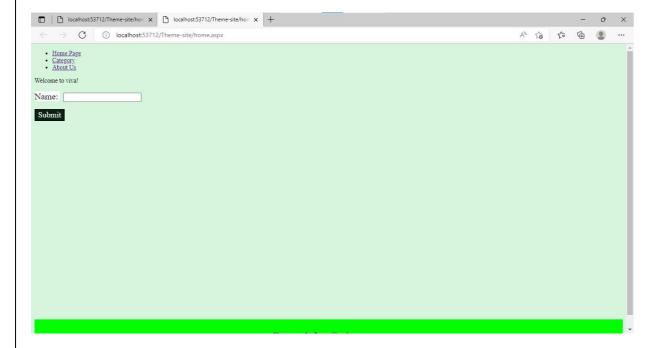
Home.aspx:

About.aspx:

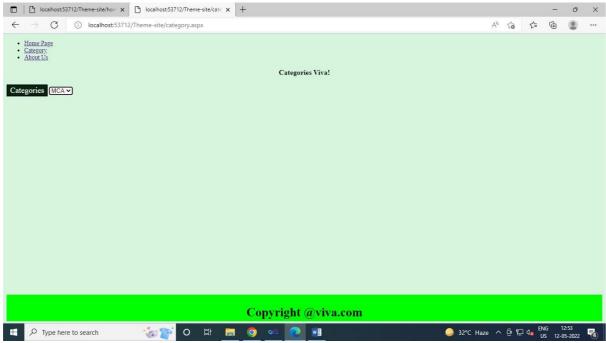
Category.aspx:



Home page:



Category Page:



About Page:

