Name: Kaustubh Wade ER No.: 160410116050 Class: TYIT-1 Batch-C

Practical 1

Aim: Write C# code to display the asterisk pattern as shown below:

*****

*****

*****

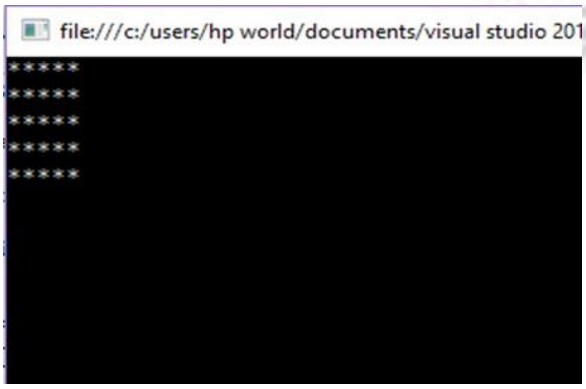
*****

*****

Code:

```
using System;

namespace Practical_1

{       class Program

        {       public static void Main(string[] args)

                {       for (int i = 0; i < 5; i++)

                        {       for (int j = 0; j < 5; j++)

                                        Console.Write("*");

                                Console.Write("\n");

                        }

                        Console.ReadKey();

                }

        }

}
```

Output:



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Practical 2

Aim: Write C# code to prompt a user to input his/her name and country name and then the output will be shown as an example below:

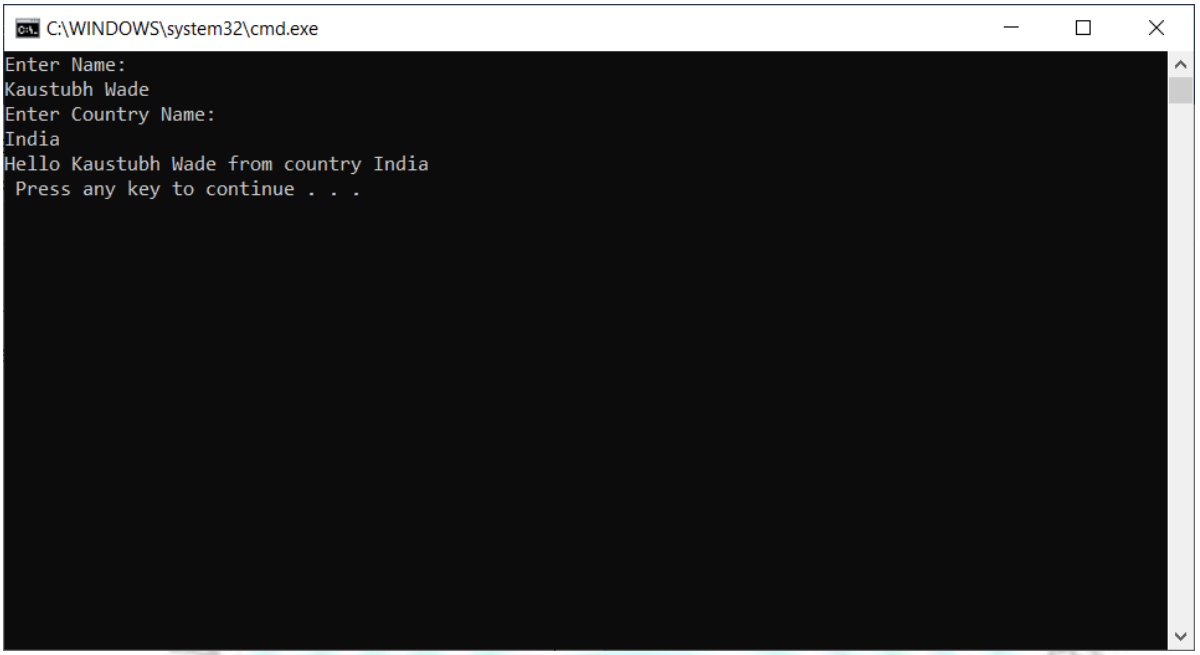
Hello Ram from country India!

Code:

```
using System;

namespace practical2
{       class Program
        {       public static void Main(string[] args)
                {       String name;
                        String Country;
                        Console.WriteLine("Enter Name:");
                        name = Console.ReadLine();
                        Console.WriteLine("Enter Country Name:");
                         Country = Console.ReadLine();
                        Console.WriteLine("Hello {0} from country {1}", name, Country);
                        Console.ReadKey();
                }
        }
}
```

Output:



Name: Kaustubh Wade ER No.: 160410116050 Class: TYIT-1 Batch-C

Practical 3

Aim: Write C# code to do the following

- Convert binary to decimal
- Convert decimal to hexadecimal
- Convert decimal to binary
- Convert decimal to octal

Code:

```
using System;

namespace practical3

{       class Program

        {       public static void Main(string[] args)

                {       double counter = 0;

                        double dec = 0;

                        Console.WriteLine(" ****Conversation Menu**** ");

                        Console.WriteLine(" 1. Binary to Decimal ");

                        Console.WriteLine(" 2. Decimal to Hexadecimal ");

                        Console.WriteLine(" 3. Decimal to Binary ");

                        Console.WriteLine(" 4. Decimal to Octal ");

                        int x = Convert.ToInt32(Console.ReadLine());

                        int i = 1, j;

                        switch (x)

                        {       case 1: int a = Convert.ToInt32(Console.ReadLine());

                                        int temp = a;

                                        int modul = 0;

                                        while (temp % 10 != temp)

                                        {       modul = temp % 10;

                                                dec = dec + (modul *
Math.Pow(Convert.ToDouble(2),

                                                counter));
```

```
                temp = temp / 10;
                counter++;
            }
            modul = temp % 10;
            dec = dec + modul * Math.Pow(Convert.ToDouble(2),
            counter);
            Console.WriteLine("Dec number is {0}", dec);
                break;
        case 2: int decimalnumber, quotient,temp2;
            char[] hexadecimalNumber = new char[100];
            char temp1;
            Console.WriteLine("Enter a Decimal Number :");
            decimalnumber = int.Parse(Console.ReadLine());
            quotient = decimalnumber;
            while (quotient != 0)
            {       temp2 = quotient % 16;
                if (temp2 < 10)
                        temp2 = temp2 + 48;
                else
                temp2 = temp2 + 55;
                temp1 = Convert.ToChar(temp2);
                hexadecimalNumber[i++] = temp1;
                quotient = quotient / 16;
            }
            Console.Write("Equivalent Hexadecimal Number is ");
            for (j = i - 1; j > 0; j--)
                Console.Write(hexadecimalNumber[j]);
            break;
```

```
case 3: int num;
        Console.WriteLine("Enter a Decimal Number : ");
        num = int.Parse(Console.ReadLine());
        int quot;
        string rem = "";
        while (num>= 1)
        {       quot = num / 2;
                rem += (num % 2).ToString();
                num = quot;
        }
        string bin = "";
        for (i = rem.Length - 1; i >= 0; i--)
                bin = bin + rem[i];
        Console.WriteLine("The Binary format for given number is
{0}", bin);
        break;
case 4: int[] octalNumber = new int[100];
        Console.WriteLine("Enter a Decimal Number :");
        decimalnumber = int.Parse(Console.ReadLine());
        quotient = decimalnumber;
        while (quotient != 0)
        {       octalNumber[i++] = quotient % 8;
                quotient = quotient / 8;
        }
        Console.Write("Equivalent Octal Number is ");
        for (j = i - 1; j > 0; j--)
                Console.Write(octalNumber[j]);
        break;
```

```
                    default: Console.WriteLine("Enter the choice properly");
                        break;
                }
                Console.ReadKey();
            }
        }
}
```

Output:

Binary to Decimal

```
****Conversation Menu****
    1. Binary to Decimal
    2. Decimal to Hexadecimal
    3. Decimal to Binary
    4. Decimal to Octal
2
Enter a Decimal Number :
48
Equivalent HexaDecimal Number is 30
```

Decimal to Hexadecimal

```
****Conversation Menu****
    1. Binary to Decimal
    2. Decimal to Hexadecimal
    3. Decimal to Binary
    4. Decimal to Octal
1
Enter a Binary Number :
1010
Dec number is 10
```

Decimal to Binary

```
****Conversation Menu****
    1. Binary to Decimal
    2. Decimal to Hexadecimal
    3. Decimal to Binary
    4. Decimal to Octal
3
Enter a Decimal Number :
12
The Binary format for given number is 1100
```

Decimal to Octal

```
****Conversation Menu****
    1. Binary to Decimal
    2. Decimal to Hexadecimal
    3. Decimal to Binary
    4. Decimal to Octal
4
Enter a Decimal Number :
48
Equivalent Octal Number is 60
```

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Practical 4

Aim : Write C# code to convert infix notation to postfix notation.

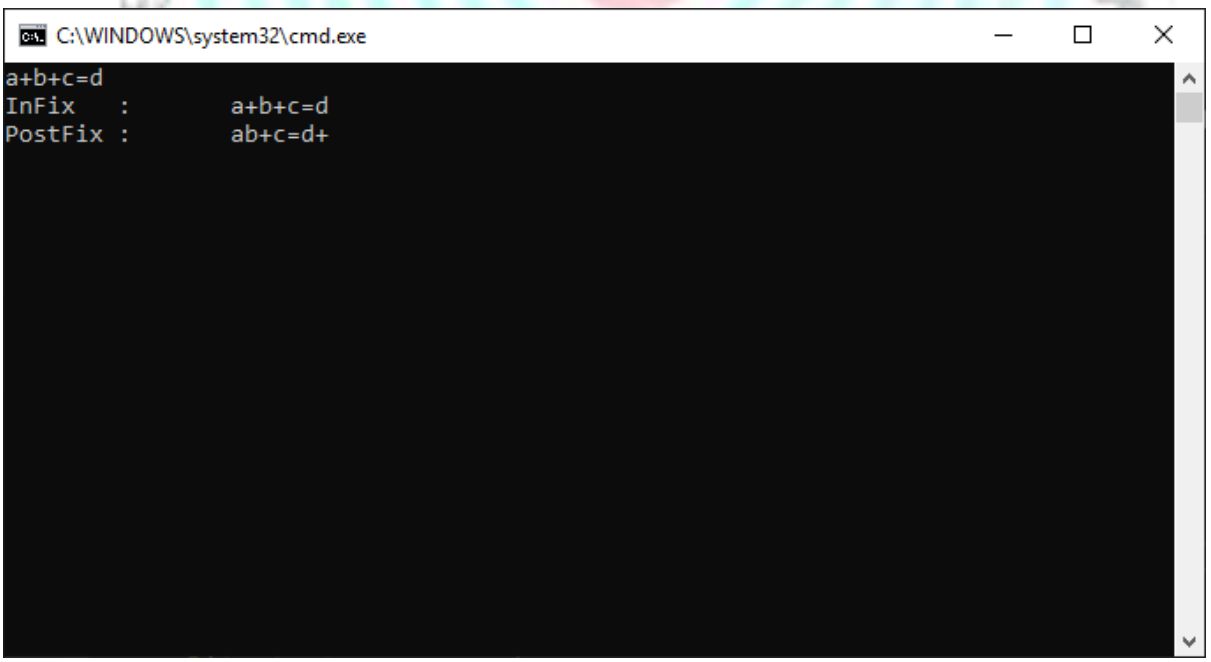
Code:

```
using System;

usingSystem.Collections.Generic;

namespace Infix

{       class Program

        {       static bool convert(ref string infix, out string postfix)

                {       int prio = 0;

                        postfix = "";

                        Stack<Char> s1 = new Stack<char>();

                        for (int i = 0; i <infix.Length; i++)

                        {       char ch = infix[i];

                                if (ch == '+' || ch == '-' || ch == '*' || ch == '/')

                                {       if (s1.Count <= 0)

                                                s1.Push(ch);

                                        else

                                        {       if (s1.Peek() == '*' || s1.Peek() == '/')

                                                        prio = 1;

                                                else

                                                        prio = 0;

                                                if (prio == 1)

                                                {       if (ch == '+' || ch == '-')

                                                        {       postfix += s1.Pop();

                                                                i--;

                                                        }

                                                        else

                                                        {       postfix += s1.Pop();
```

```
                                        i--;
                                }
                        }
                        else
                        {       if (ch == '+' || ch == '-')
                                {       postfix += s1.Pop();
                                        s1.Push(ch);
                                }
                                else
                                        s1.Push(ch);
                        }
                }
        }
        else
                postfix += ch;
}
Int len = s1.Count;
for (int j = 0; j <len; j++)
        postfix += s1.Pop();
return true;
}
static void Main(string[] args)
{       string infix = "";
        string postfix =  "";
        if (args.Length == 1)
        {       infix = args[0];
                convert(ref infix, out postfix);
```

```
                System.Console.WriteLine("InFix :\t" + infix);
                System.Console.WriteLine("PostFix:\t" + postfix);
            }
            else
            {       infix = Console.ReadLine() ;
                convert(ref infix, out postfix);
                Console.WriteLine("InFix :\t" + infix);
                Console.WriteLine("PostFix :\t" + postfix);
                Console.WriteLine();
                Console.ReadLine();
            }
        }
    }
}
```

Output:



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Practical 5

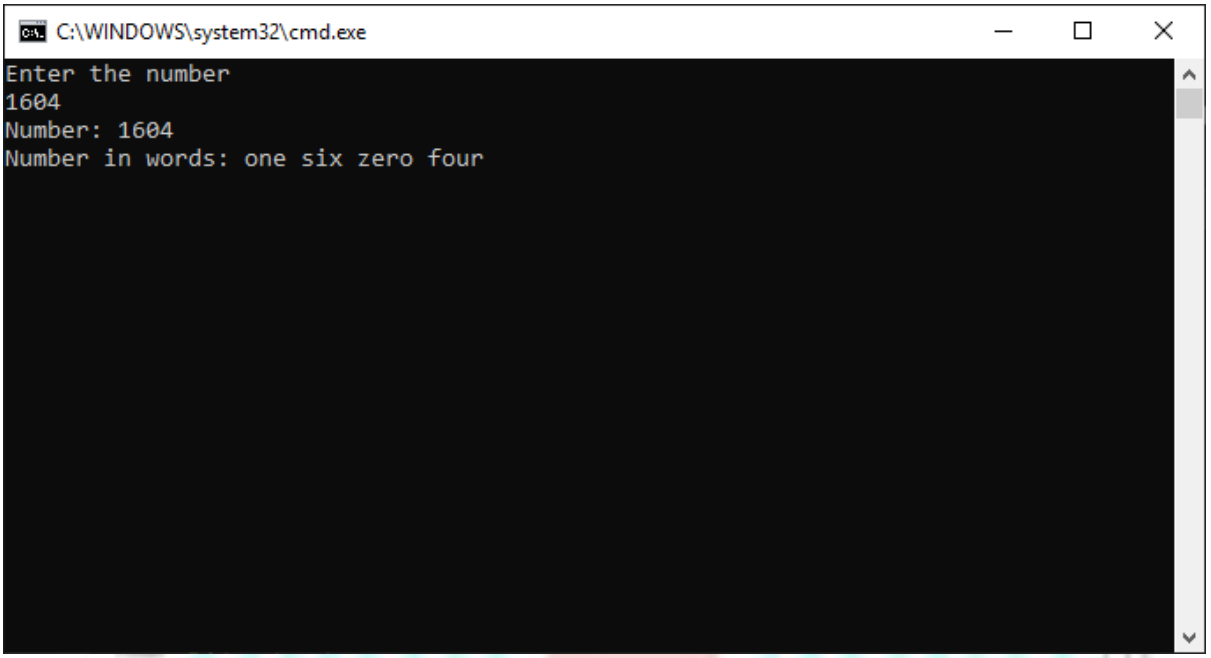
Aim : Write a C# code to convert digits to words.

Code:

```
using System;

public class practical5

{       public static void Main()

        {       int num;

                int nextdigit;

                int numdigits;

                int[] n = new int[20];

                string[] digits = { "zero", "one", "two","three", "four", "five","six", "seven",
"eight","nine" };

                Console.WriteLine("Enter the number");

                num = Convert.ToInt32(Console.ReadLine());

                Console.WriteLine("Number: " + num);

                Console.Write("Number in words: ");

                nextdigit = 0;

                numdigits = 0;

                do

                {       nextdigit = num % 10;

                        n[numdigits] = nextdigit;

                        numdigits++;

                        num = num / 10;

                }while (num> 0);

                numdigits--;

                for (; numdigits>= 0; numdigits--)

                        Console.Write(digits[n[numdigits]] + " ");

                Console.WriteLine();
```

```
            Console.ReadLine();
        }
}
```

Output:



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Practical 6

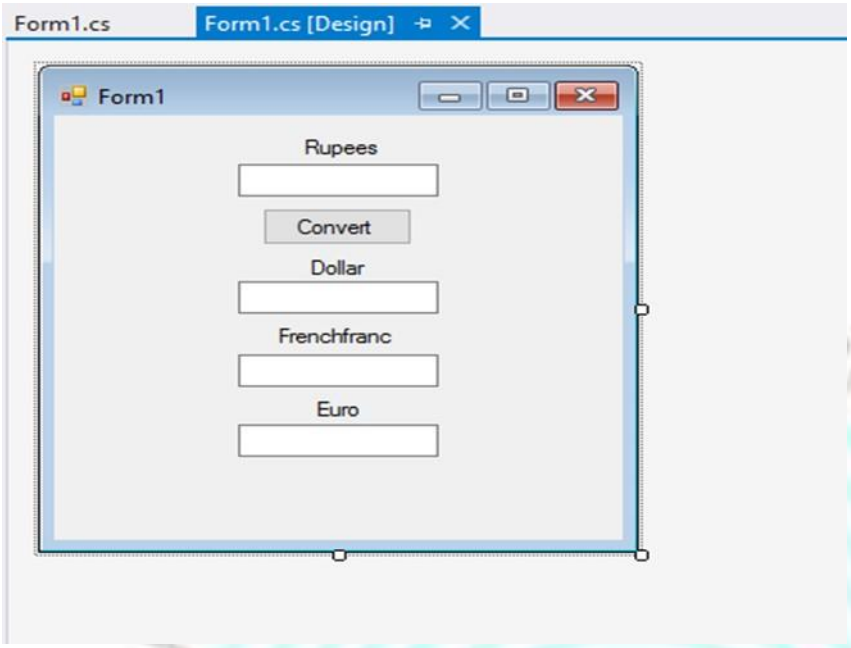
Aim : Write a C# code to Convert following currency conversion. Rupees to dollar, frank, euro. (windows app)

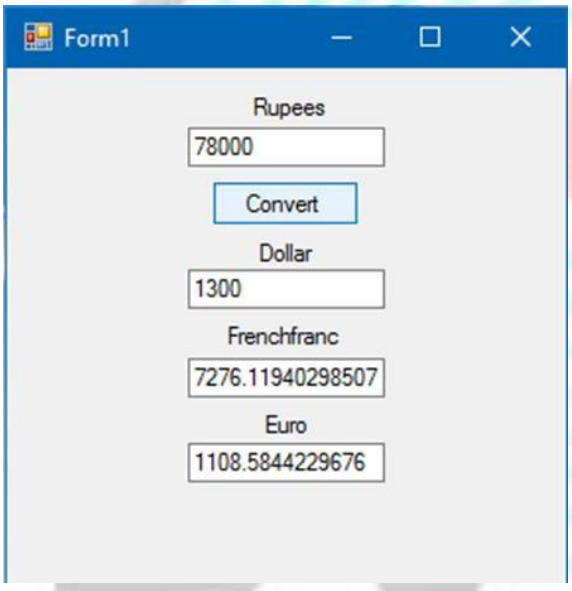
Code:

```
using System;

usingSystem.Collections.Generic;

usingSystem.ComponentModel;

usingSystem.Data;

usingSystem.Drawing;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Windows.Forms;

namespace prractical6

{       public partial class Form1 : Form

        {       public Form1()

                {       InitializeComponent(); }

                private void button1_Click(object sender, EventArgs e)

                {       double rupee, dollar, frenchfranc,euro;

                        rupee = double.Parse(textBox1.Text);

                        dollar = rupee / 60;

                        textBox2.Text = dollar.ToString();

                        frenchfranc = rupee / 10.72;

                        textBox3.Text = frenchfranc.ToString();

                        euro = rupee / 70.36;

                        textBox4.Text = euro.ToString();

                }

        }
```

}

Output:


Form1.cs
Form1.cs [Design]
Form1
Rupees
Convert
Dollar
Frenchfranc
Euro


Form1
Rupees
78000
Convert
Dollar
1300
Frenchfranc
7276.11940298507
Euro
1108.5844229676

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Practical 7

Aim : Write a C# code to Perform Celsius to Fahrenheit Conversion and Fahrenheit to Celsius conversion. (Windows app)

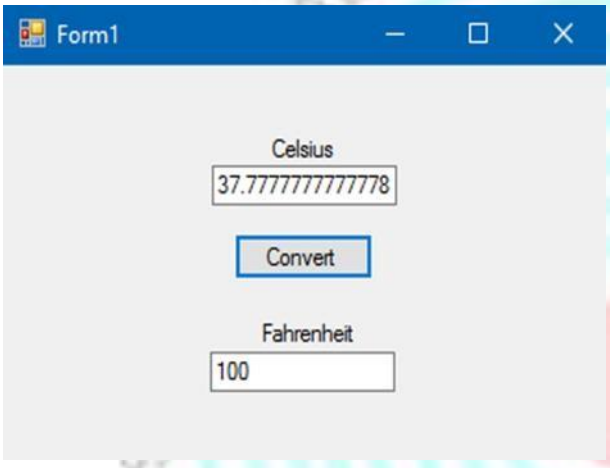
Code:

```
using System;

usingSystem.Collections.Generic;

usingSystem.ComponentModel;

usingSystem.Data;

usingSystem.Drawing;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Windows.Forms;

namespace pr7

{       publicpartialclassForm1 : Form

        {       public Form1()

                {       InitializeComponent(); }

                privatevoid label2_Click(object sender, EventArgs e)

                {       }

                privatevoid button1_Click(object sender, EventArgs e)

                {       Try

                        {       if (textBox1.Text == ""&& textBox2.Text == "")

                                        MessageBox.Show("Enter Input for 1 box");

                                if ((!(textBox1.Text == "")) && (!(textBox2.Text == "")))

                                        MessageBox.Show("Enter data for only 1 box");

                                if (textBox1.Text == "")

                                        textBox1.Text = (((Convert.ToDouble(textBox2.Text) - 32) *
5) /.ToString();

                                if (textBox2.Text == "")
```

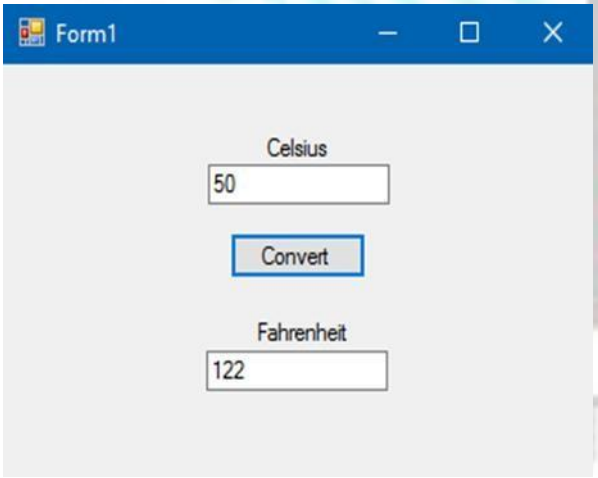
```
                                    textBox2.Text = ((Convert.ToDouble(textBox1.Text) * 9) / 5 +
                                .ToString();

                            }

                            catch { }

                        }

                }

}
```

Output:

Celsius to Fahrenheit:



Fahrenheit to Celsius:



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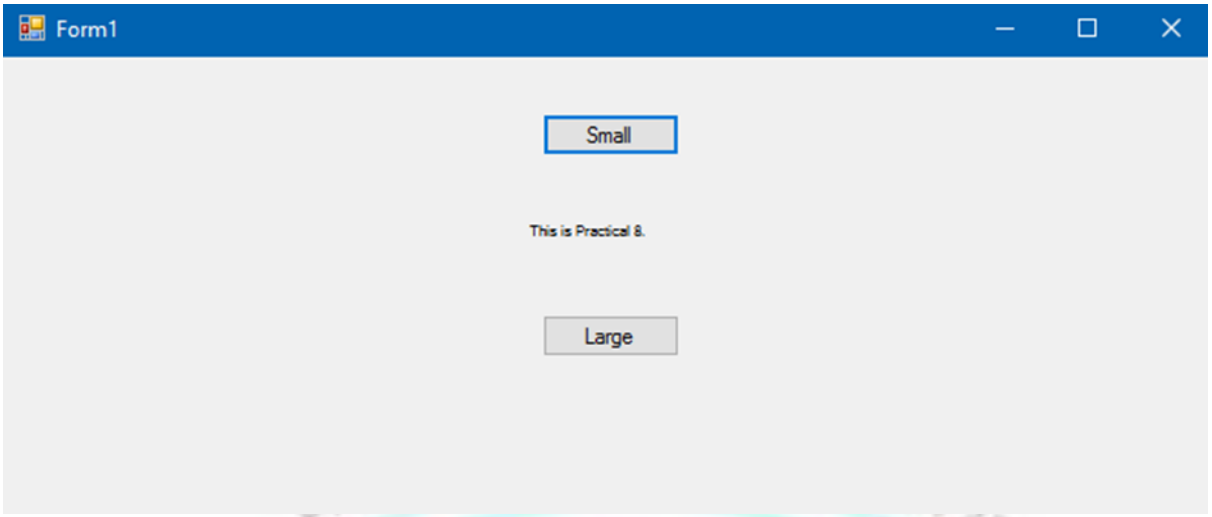
Practical 8

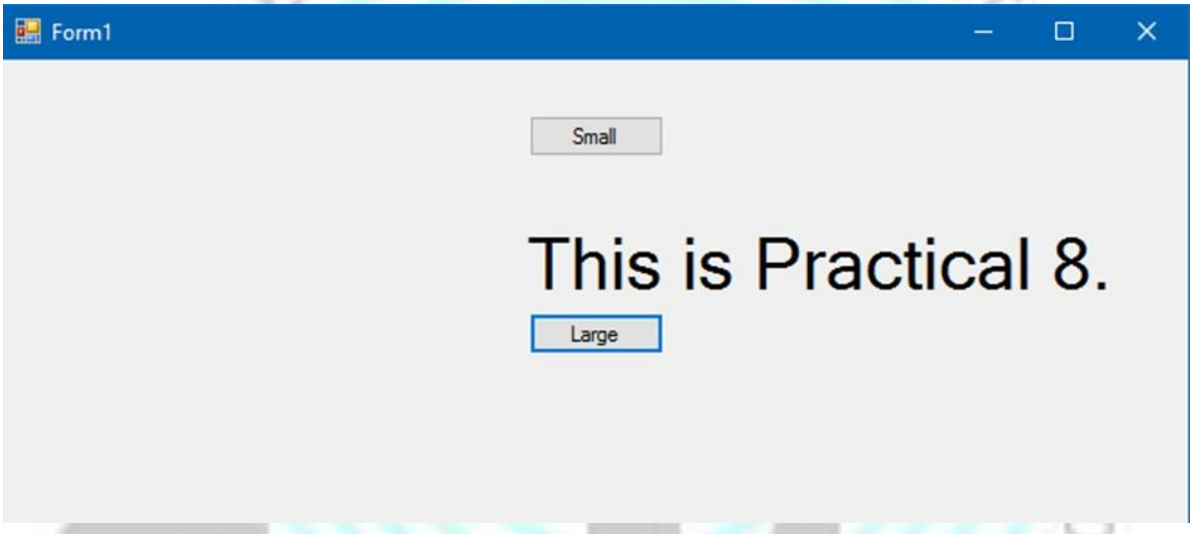
Aim : Write a program to increase and decrease font size programmatically. (Windows app)

Code:

```
using System;

usingSystem.Collections.Generic;

usingSystem.ComponentModel;

usingSystem.Data;

usingSystem.Drawing;

usingSystem.Linq;

usingSystem.Text;

usingSystem.Threading.Tasks;

usingSystem.Windows.Forms;

namespace practical8

{       publicpartialclassForm1 : Form

        {       public Form1()

                {       InitializeComponent(); }

                privatevoid button1_Click(object sender, EventArgs e)

                {       label1.Font = newFont(label1.Font.FontFamily, 6);       }

                privatevoid button2_Click(object sender, EventArgs e)

                {       label1.Font = newFont(label1.Font.FontFamily, 30);      }

                privatevoid Form1_Load(object sender, EventArgs e)

                { }

        }

}
```

Output:


Form1
Small
This is Practical 8.
Large


Form1
Small
This is Practical 8.
Large

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Practical 9

Aim : Write a program to check whether empty query string is entered in Asp .net.

Code:

Webform1.aspx:

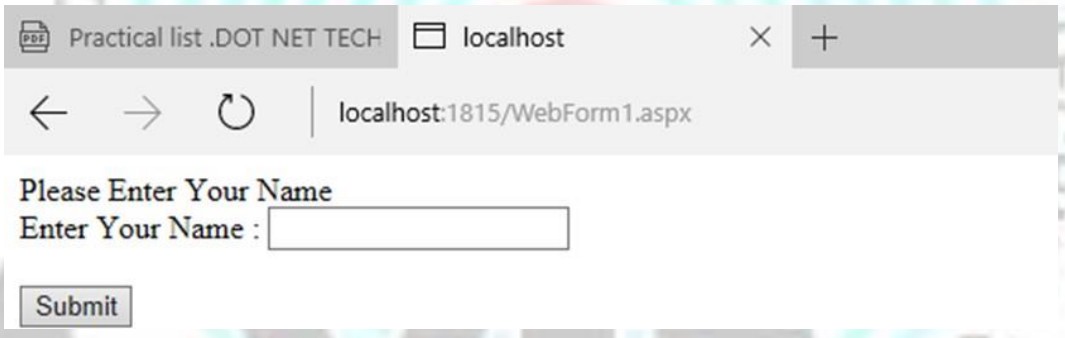
```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="WebForm1.aspx.cs"Inherits="pra9.
WebForm1"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">

<headrunat="server">

<title></title>

</head>

<body>

        <form id="form1"runat="server">

        <div>

        Enter Your Name :

        <asp:TextBoxID="textname"runat="server"></asp:TextBox>

        <br/>

        <br/>

        <asp:ButtonID="button1"runat="server"OnClick="button1_Click"Text="Submit"/>

        </div>

        </form>

</body>

</html>
```

Webform1.aspx.cs:

```
using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Web;

usingSystem.Web.UI;
```

```
usingSystem.Web.UI.WebControls;

namespace pra9

{       publicpartialclassWebForm1 : System.Web.UI.Page

        {       protectedvoidPage_Load(object sender, EventArgs e)

                {}

                protectedvoid button1_Click(object sender, EventArgs e)

                {       if (textname.Text.Length == 0)

                                Response.Write("Please Enter Your Name");

                }

        }

}
```

Output:



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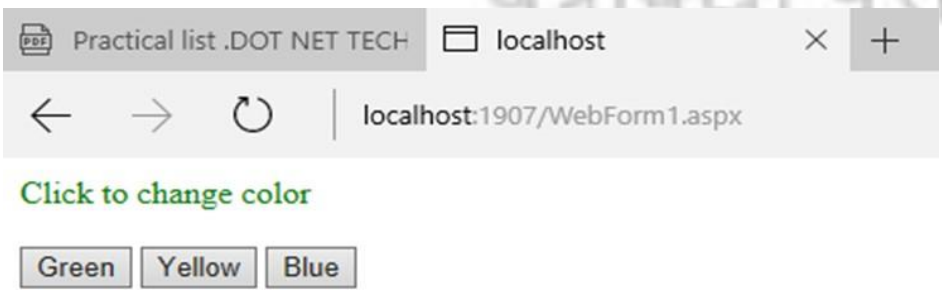
Practical 10

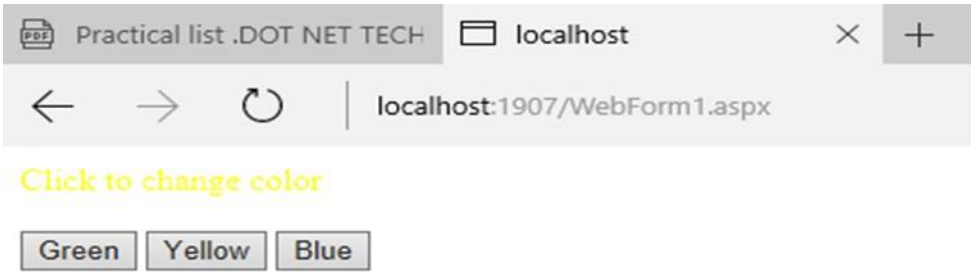
Aim : Write a program to change colour of Label text control programmatically in Asp .Net

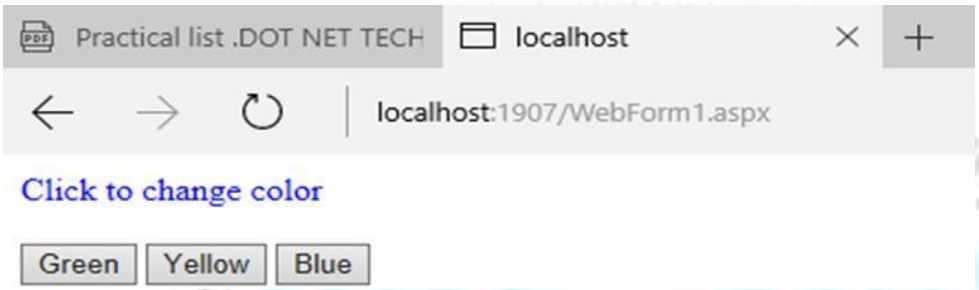
Code:

```
using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Web;

usingSystem.Web.UI;

usingSystem.Web.UI.WebControls;

namespace practical10

{       publicpartialclassWebForm1 : System.Web.UI.Page

        {       protectedvoidPage_Load(object sender, EventArgs e)

                { }

                protectedvoid Button2_Click(object sender, EventArgs e)

                {       Label1.ForeColor = System.Drawing.Color.Yellow;       }

                protectedvoid Button1_Click(object sender, EventArgs e)

                {       Label1.ForeColor = System.Drawing.Color.Green;       }

                protectedvoid Button3_Click(object sender, EventArgs e)

                {       Label1.ForeColor = System.Drawing.Color.Blue;  }

        }

}
```

Output:







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Practical 11

Aim : Write a program to Enable-Disable Textbox and change width of TextBox programmatically in Asp .Net

Code:

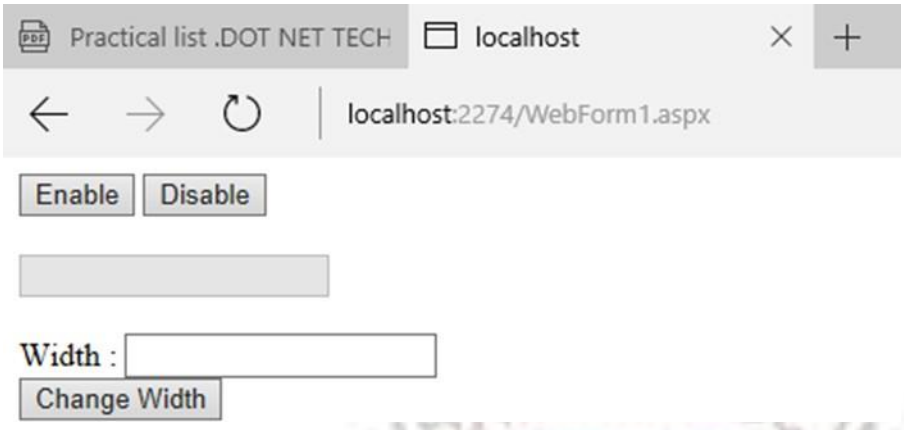
WebForm1.aspx:

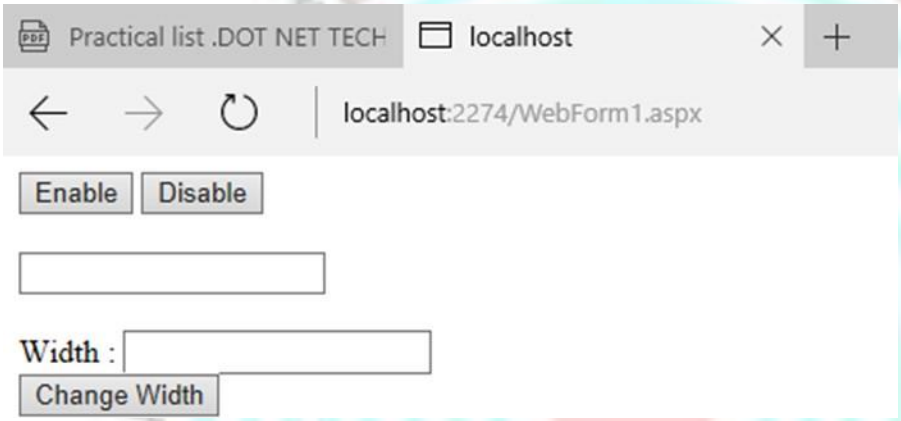
```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="WebForm1.aspx.cs"Inherits="practi
cal11.WebForm1"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">

<headrunat="server">

<title></title>

</head>

<body>

        <formid="form1"runat="server">

        <div>

        <asp:ButtonID="Button1"runat="server"Text="Enable"OnClick="Button1_Click"/>

        <asp:ButtonID="Button2"runat="server"Text="Disable"OnClick="Button2_Click"/>

        <br/>  <br/>

        <asp:TextBoxID="TextBox1"runat="server"></asp:TextBox>

        <br/>  <br/>

        <asp:LabelID="Label1"runat="server"Text="Width :"></asp:Label>

        <asp:TextBoxID="TextBox2"runat="server"></asp:TextBox>

        <br/>

        <asp:ButtonID="Button3"runat="server"OnClick="Button3_Click"Text="Change Width"/>

        </div>

        </form>

</body>

</html>
```

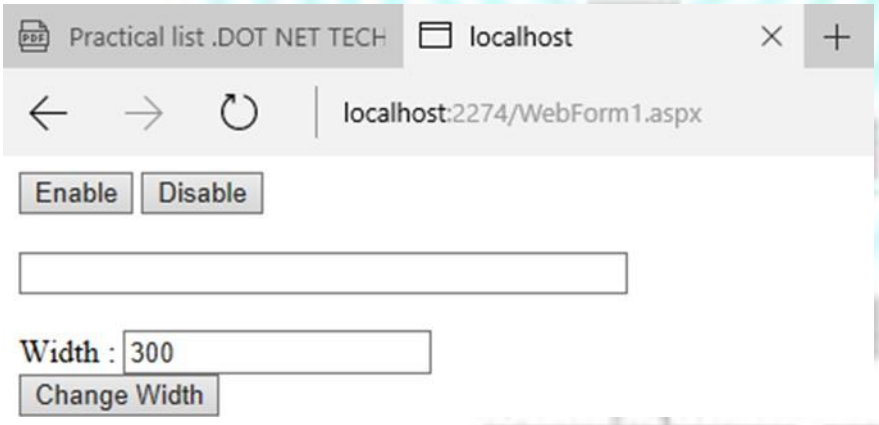
WebForm1.aspx.cs:

```
using System;
usingSystem.Collections.Generic;
usingSystem.Linq;
usingSystem.Web;
usingSystem.Web.UI;
usingSystem.Web.UI.WebControls;
namespace practical11
{       publicpartialclassWebForm1 : System.Web.UI.Page
        {       protectedvoidPage_Load(object sender, EventArgs e)
                { }
                protectedvoid Button1_Click(object sender, EventArgs e)
                {       TextBox1.Enabled = true;      }
                protectedvoid Button2_Click(object sender, EventArgs e)
                {       TextBox1.Enabled = false;      }
                protectedvoid Button3_Click(object sender, EventArgs e)
                {       TextBox1.Width = Convert.ToInt16(TextBox2.Text); }
        }
}
```

Output:







Name: Kaustubh Wade ER No.: 160410116050 Class: TYIT-1 Batch-C

Practical 12

Aim : Write ASP.Net program to Store Objects in Session State and Storing Session State in SQL Server.

Code:

Products.aspx:

```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="Products.aspx.cs"Inherits="pra12.Products"%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">

<headrunat="server">

<title></title>

</head>

<body>

        <formid="form1"runat="server">

        <asp:GridViewID="GridView1"runat="server"AutoGenerateColumns="False"DataKeyNames="ProductName"DataSourceID="SqlDataSource1"OnSelectedIndexChanged="GridView1_SelectedIndexChanged">

        <Columns>

<asp:BoundFieldDataField="ProductName"HeaderText="ProductName"ReadOnly="True"SortExpression="ProductName"/>

        <asp:BoundFieldDataField="UnitPrice"HeaderText="UnitPrice"SortExpression="UnitPrice"/>

        <asp:CommandFieldSelectText="Add to Cart"ShowHeader="True"ShowSelectButton="True"/>

        </Columns>

        </asp:GridView>

        <asp:HyperLinkID="HyperLink1"runat="server"NavigateUrl="~/Cart.aspx"Font-Bold="True"Font-Size="Large">I'm Done, show products</asp:HyperLink>

        <asp:SqlDataSourceID="SqlDataSource1"runat="server"ConnectionString="<%$ ConnectionStrings:ConnectionString%>"SelectCommand="SELECT * FROM [products]"></asp:SqlDataSource>

        <div>

        </div>
```

```
        </form>
</body>
</html>
```

Products.aspx.cs:

```
using System;
usingSystem.Collections.Generic;
usingSystem.Linq;
usingSystem.Web;
usingSystem.Web.UI;
usingSystem.Web.UI.WebControls;
usingSystem.Data;
usingSystem.Data.SqlClient;
namespace pra12
{       publicpartialclassProducts : System.Web.UI.Page
        {       protectedvoidPage_Load(object sender, EventArgs e)
                { }
                protectedvoid GridView1_SelectedIndexChanged(object sender, EventArgs e)
                {       DataSet ds = null;
                        if (Session["Cart"] == null)
                        {       ds = newDataSet();
                                DataTabledt = newDataTable();
                                dt.Columns.Add(newDataColumn("Productname"));
                                dt.Columns.Add(newDataColumn("Quantity",
                        typeof(System.Int32)));
                                ds.Tables.Add(dt);
                                Session["Cart"] = ds;
                        }
                        else
```

```
                    {           ds = (DataSet)Session["Cart"];    }

                    DataRow row = ds.Tables[0].NewRow();

                    row["productname"] =
                GridView1.Rows[GridView1.SelectedIndex].Cells[0].Text;

                    row["quantity"] = 1;

                    ds.Tables[0].Rows.Add(row);

                }

        }

}
```

Cart.aspx:

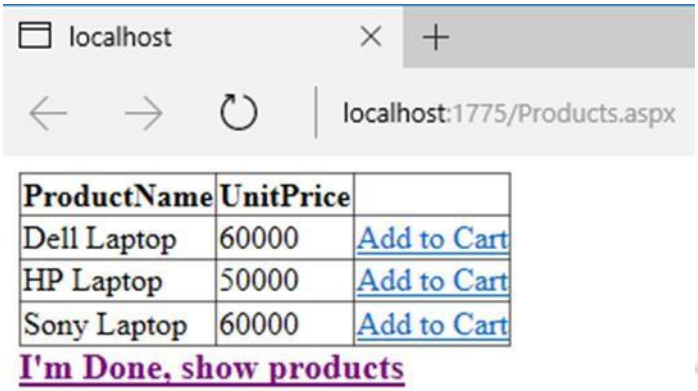
```
<%@PageLanguage="C#"AutoEventWireup="true"CodeBehind="Cart.aspx.cs"Inherits="pra12.Cart"
%>

<!DOCTYPEhtml>

<htmlxmlns="http://www.w3.org/1999/xhtml">

<headrunat="server">

<title></title>

</head>

<body>

        <formid="form1"runat="server">

        <asp:GridViewID="GridView1"runat="server"OnSelectedIndexChanged="GridView1_Selecte
dIndexChanged1"Width="339px">

        <Columns>

        <asp:BoundFieldDataField="productname"HeaderText="ProductName"/>

        <asp:BoundFieldDataField="quantity"HeaderText="Quantity"/>

        </Columns>

        </asp:GridView>

        <div>

        </div>

        </form>
```

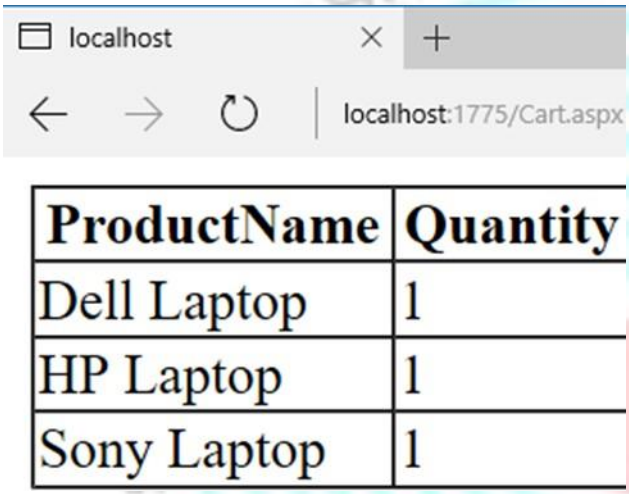
```
</body>

</html>
```

Cart.aspx.cs:

```
using System;

usingSystem.Collections.Generic;

usingSystem.Linq;

usingSystem.Web;

usingSystem.Web.UI;

usingSystem.Web.UI.WebControls;

usingSystem.Data;

usingSystem.Data.SqlClient;

namespace pra12

{       publicpartialclassCart : System.Web.UI.Page

        {       protectedvoidPage_Load(object sender, EventArgs e)

                {       GridView1.DataSource = (DataSet)Session["Cart"];

                        GridView1.DataBind();

                }

                protectedvoid GridView1_SelectedIndexChanged(object sender, EventArgs e)

                { }

        }

}
```

Output:


localhost
localhost:1775/Products.aspx
ProductName UnitPrice
Dell Laptop 60000 Add to Cart
HP Laptop 50000 Add to Cart
Sony Laptop 60000 Add to Cart
I'm Done, show products


localhost
localhost:1775/Cart.aspx
ProductName Quantity
Dell Laptop 1
HP Laptop 1
Sony Laptop 1