AIM: Design UI based applications using basic Windows forms Controls

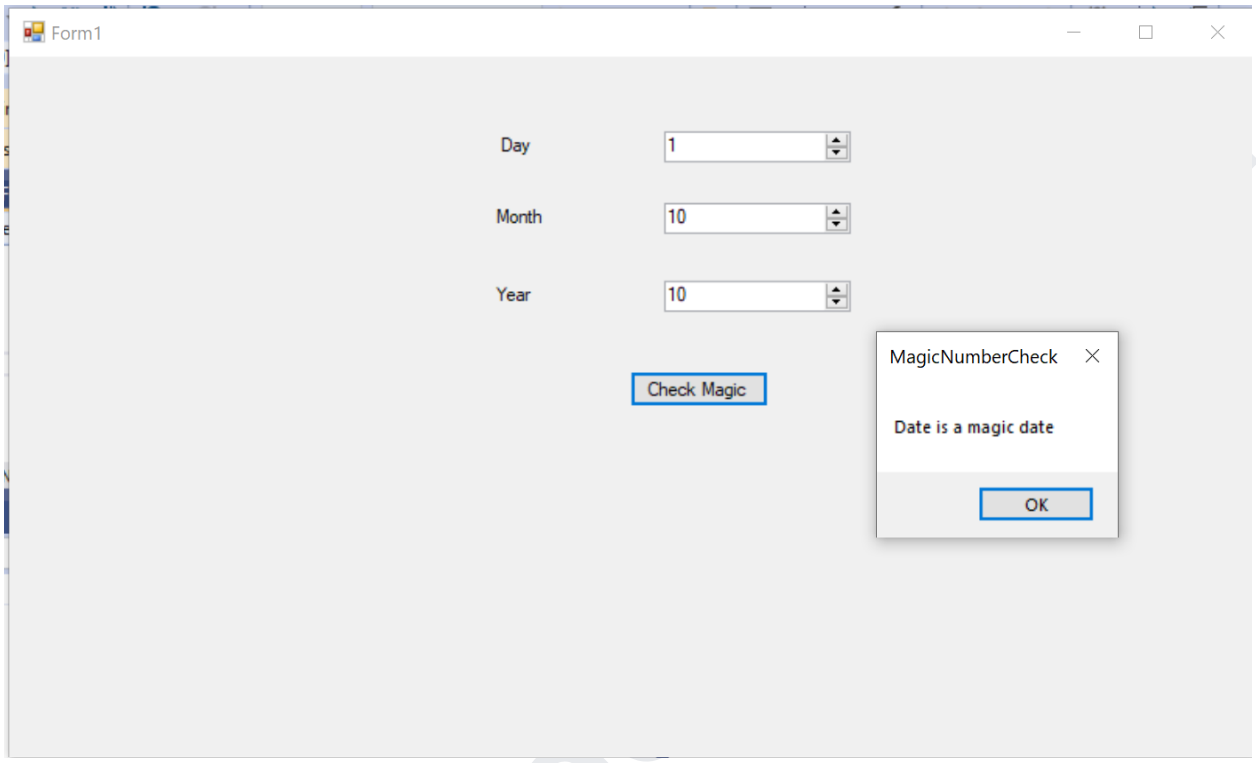
A) Write a Program in C# that ask the user to enter a month, a day and a two digit year. The program should then determine whether the month times a day is equal to the year. If so, it should display the message saying the date is magic. Otherwise not a magic.

SOURCE CODE:

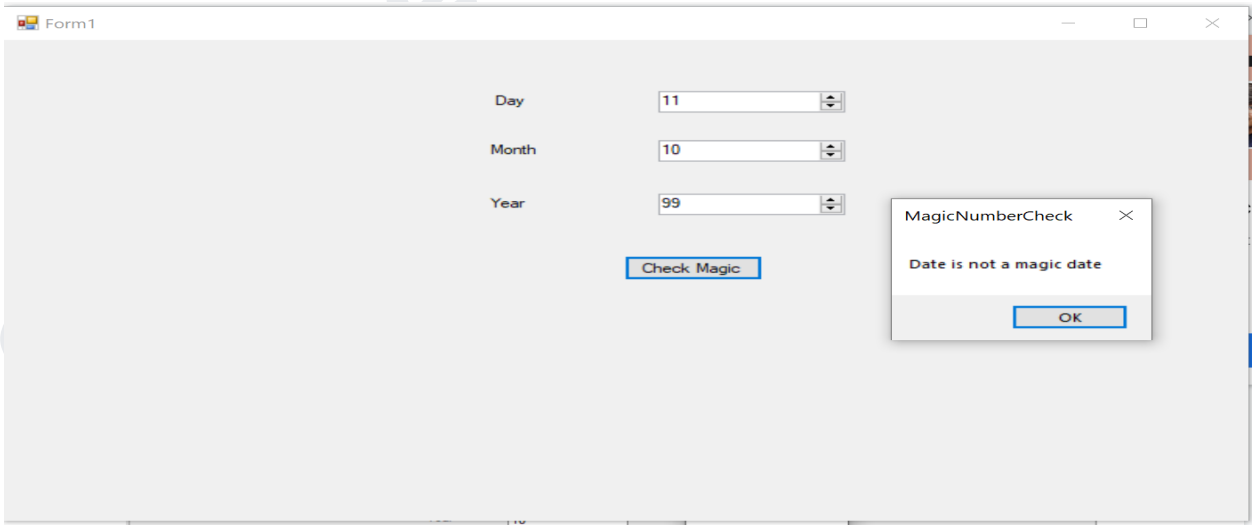
```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace p1MagicNumber
{
   public partial class Form1 : Form
   {
      public Form1()
      {
         InitializeComponent();
      }

      private void button1_Click(object sender, EventArgs e)
      {
         int month = Convert.ToInt32(numericUpDown1.Text);
         int date = Convert.ToInt32(numericUpDown2.Text);
         int year = Convert.ToInt32(numericUpDown3.Text);
         if (date * month == year)
         {
            MessageBox.Show("Date is a magic date", "MagicNumberCheck");
         }
         else
         {
            MessageBox.Show("Date is not a magic date", "MagicNumberCheck");
         }
      }
   }
}
```

OUTPUT:

CASE-I:



CASE-II:



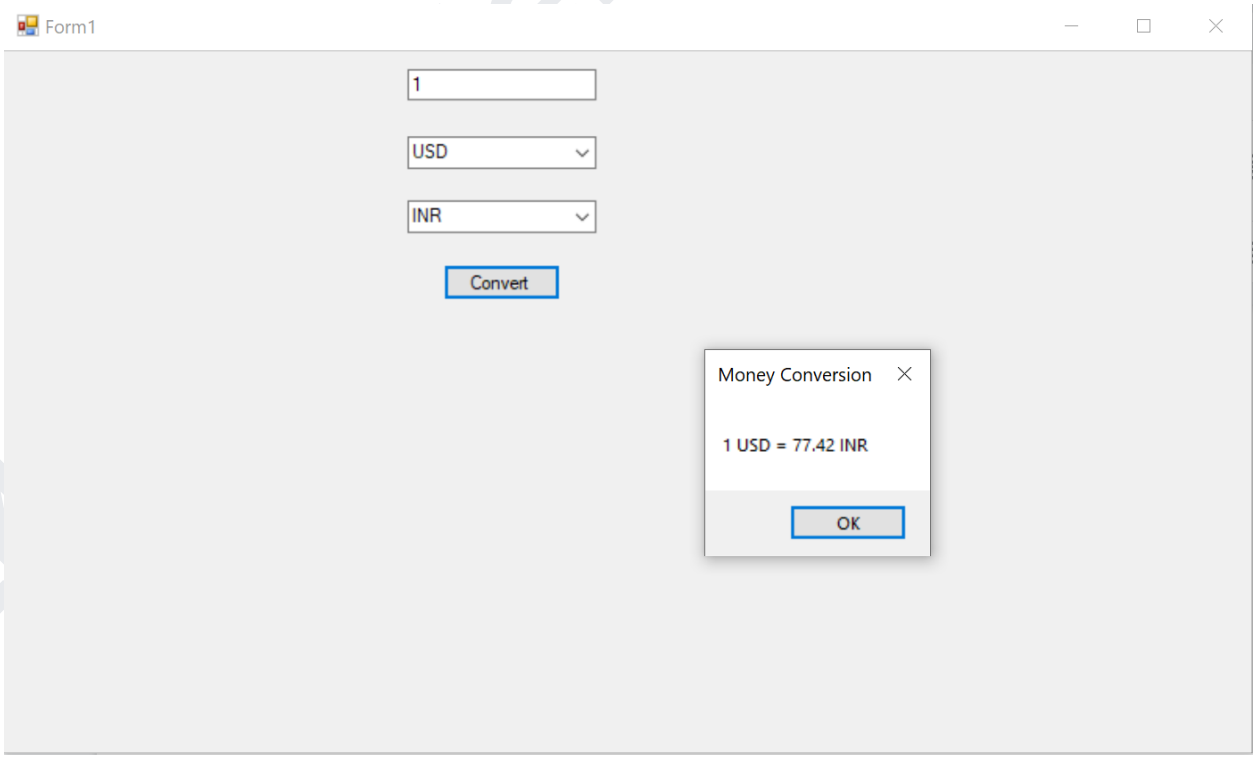
B) Write a Program to perform Money Conversion.

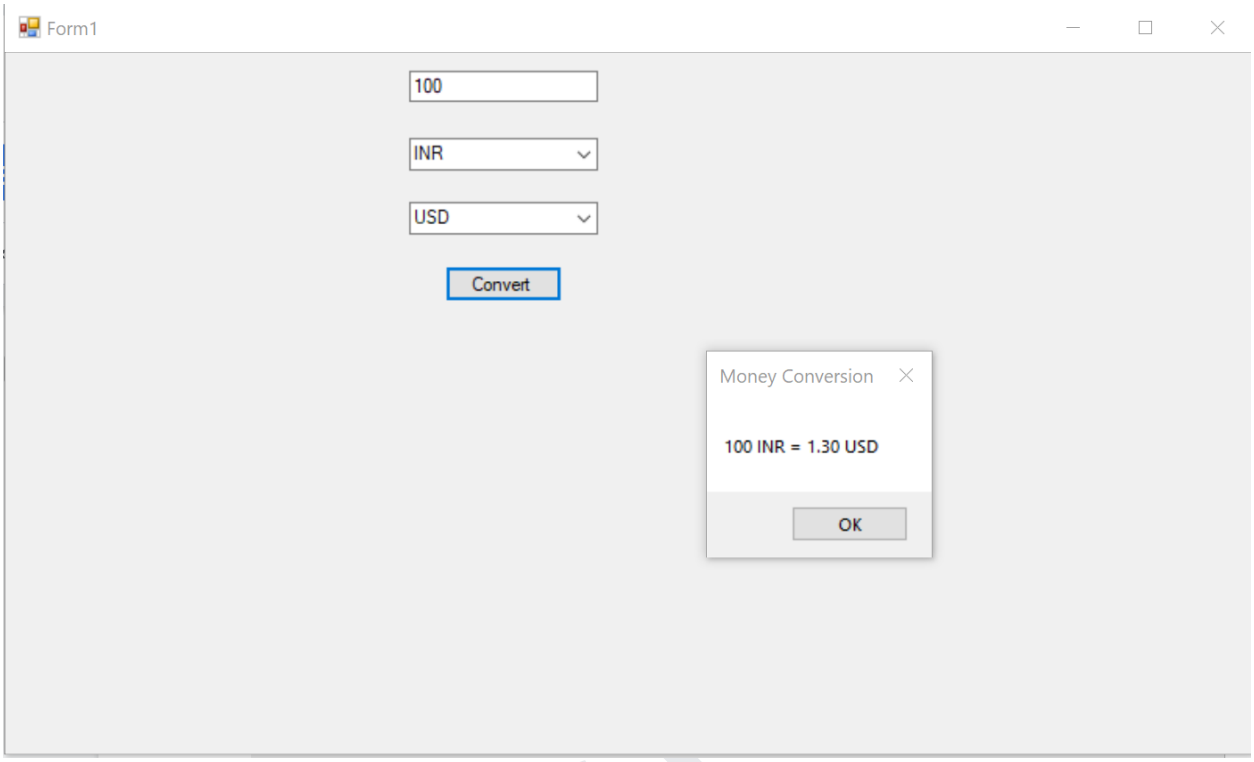
SOURCE CODE:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace p1MagicConversion
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
        }

        private void button1_Click(object sender, EventArgs e)
        {
            int amt = Convert.ToInt32(textBox1.Text);
            double value = 0;
            if (comboBox1.Text == comboBox2.Text)
            {
                MessageBox.Show("Conversion Formats can't be same", "Money
Conversion");

            }
            else if (comboBox1.Text == "INR" && comboBox2.Text == "USD")
            {
                value = amt * 0.013;
            }
            else if (comboBox1.Text == "INR" && comboBox2.Text == "EUR")
            {
                value = amt * 0.012;
            }
            else if (comboBox1.Text == "USD" && comboBox2.Text == "INR")
            {
                value = amt * 77.42;
```

```
        }
        else if (comboBox1.Text == "USD" && comboBox2.Text == "EUR")
        {
            value = amt * 0.95;
        }
        else if (comboBox1.Text == "EUR" && comboBox2.Text == "INR")
        {
            value = amt * 81.96;
        }
        else if (comboBox1.Text == "EUR" && comboBox2.Text == "USD")
        {
            value = amt * 1.05;
        }

        MessageBox.Show(amt + " " + comboBox1.Text + " = "+value.ToString("0.00")
+" "+ comboBox2.Text, "Money Conversion");

    }
  }
}
```

OUTPUT:





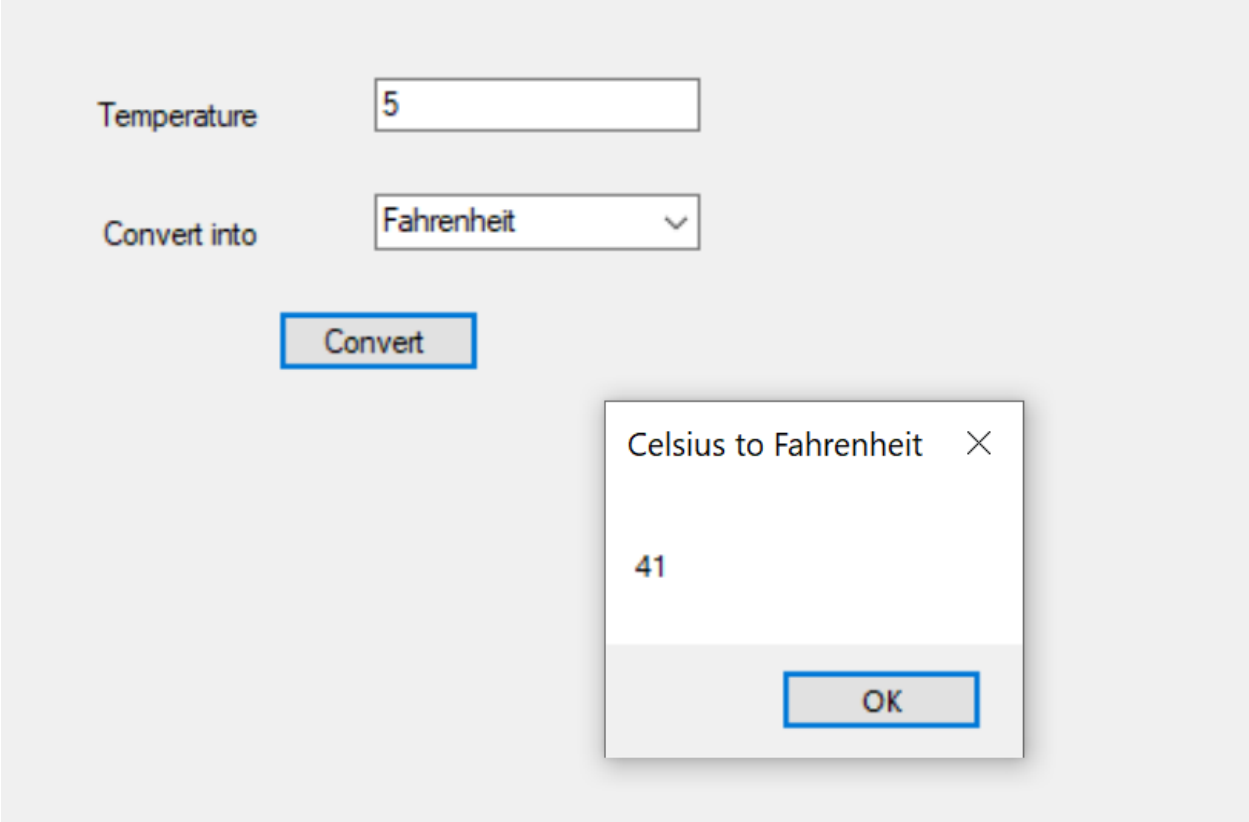
C) **To convert temperature from Fahrenheit to Celsius or vice versa.**

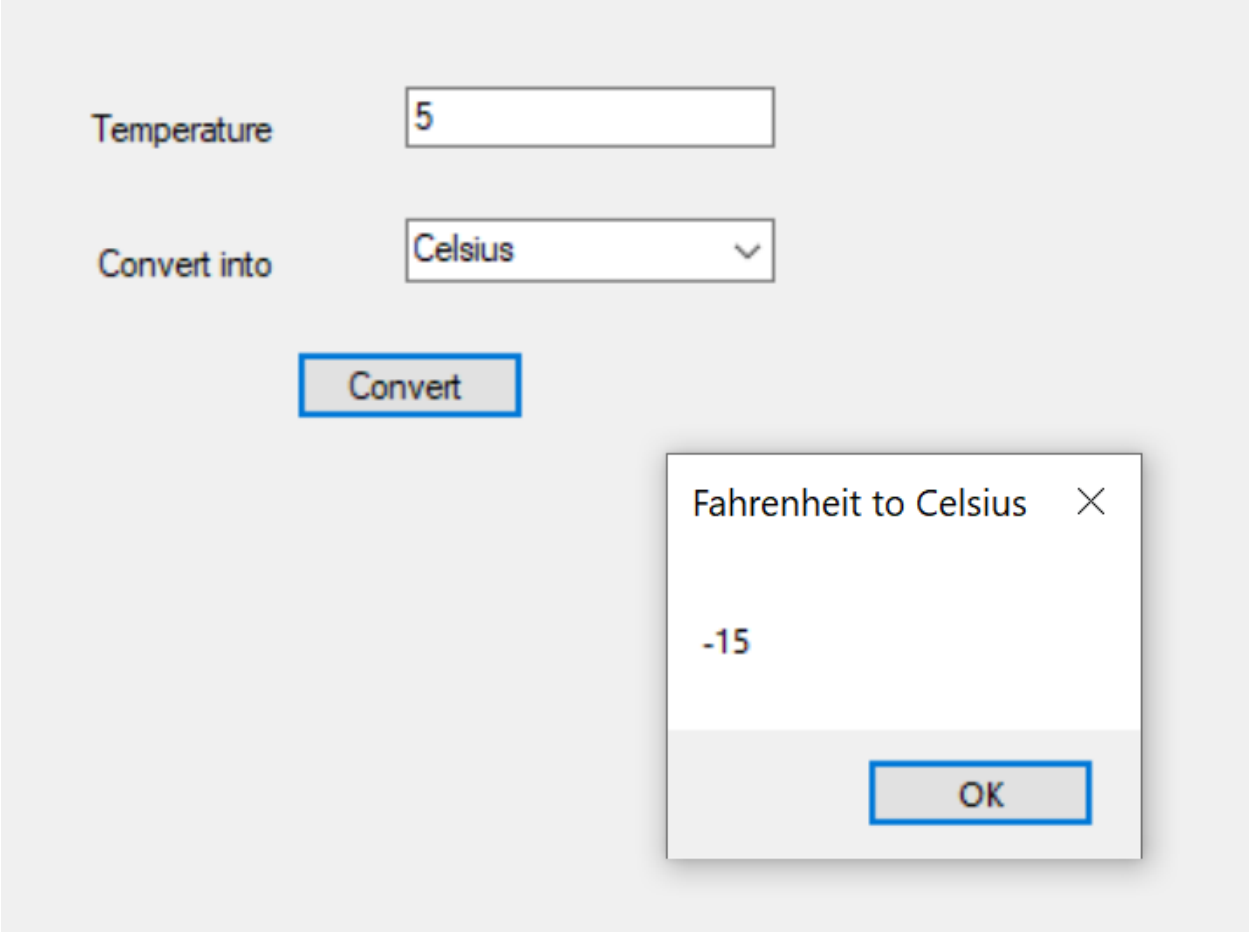
SOURCE CODE:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace p1Temperature
{
    public partial class Form1 : Form
    {
        public Form1()
        {
            InitializeComponent();
```

```
        }

        private void button1_Click(object sender, EventArgs e)
        {

            int temp = Int16.Parse(textBox1.Text);
            double value = 0;

            if (comboBox1.Text == "Fahrenheit")
            {
                value = (temp * 9 / 5) + 32;
                MessageBox.Show(value.ToString(), "Celsius to Fahrenheit");
            }

            if (comboBox1.Text == "Celsius")
            {
                value = (temp - 32) * 5 / 9;
                MessageBox.Show(value.ToString(), "Fahrenheit to Celsius");
            }

        }
    }
}
```

OUTPUT:


Temperature
5
Convert into
Fahrenheit
Convert
Celsius to Fahrenheit
41
OK



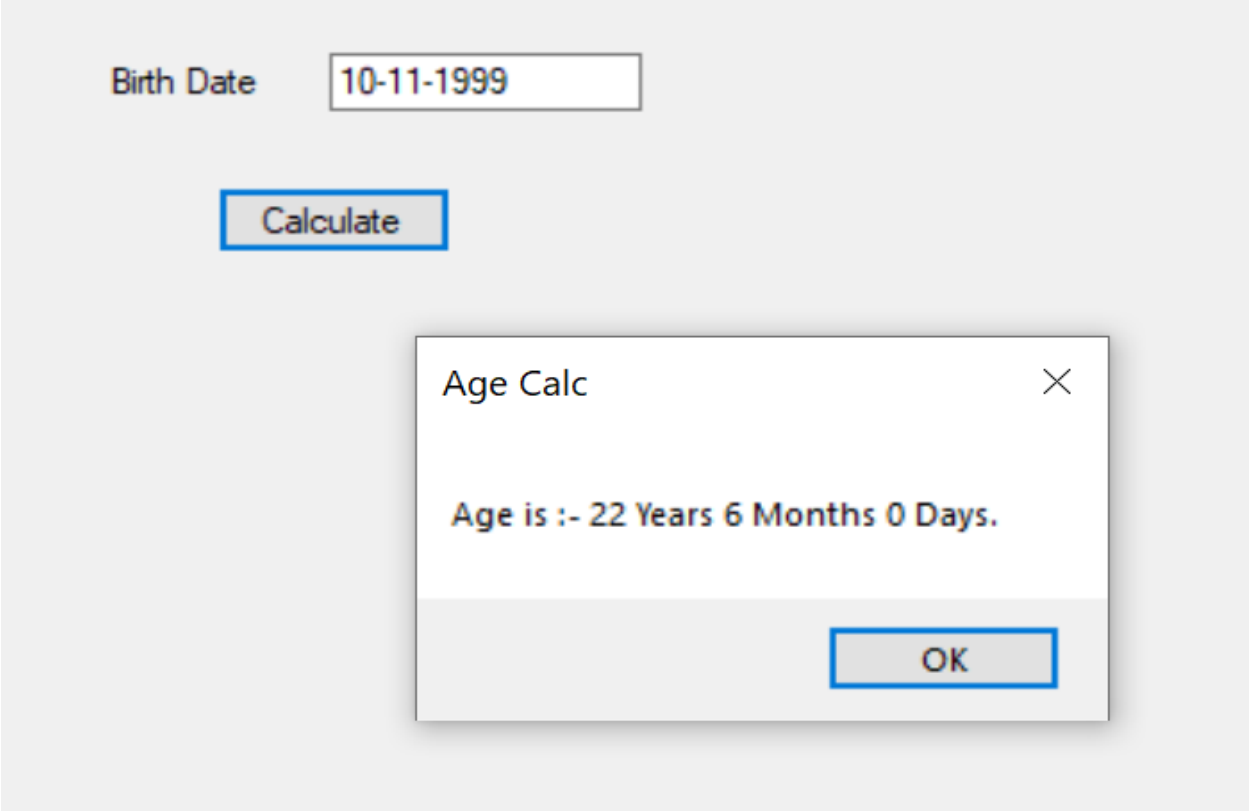
D) Create a Window application to calculate age of a person by providing input as birth date and current date .Current date and Birth date must be in long string format and display the age in terms of years

SOURCE CODE:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using System.Windows.Forms;

namespace p1Birthday
{
    public partial class Form1 : Form
```

```
    {
        public Form1()
        {
            InitializeComponent();

        }

        private void button1_Click(object sender, EventArgs e)
        {
            string textBox2 = Convert.ToString(DateTime.Now.ToLongDateString());
            DateTime bdate = Convert.ToDateTime(textBox1.Text);
            DateTime cdate = Convert.ToDateTime(textBox2);
            int years = (cdate.Year - bdate.Year) - 1;
            int months = 12 - Math.Abs(cdate.Month - bdate.Month);
            int days = cdate.Day - bdate.Day;

            MessageBox.Show("Age is :- " + years + " Years " + months
            + " Months " + days + " Days. ", "Age Calc");
        }
    }
}
```

OUTPUT:



CONCLUSION:

From this practical, I have learned about the basics of windows forms with c#.