

**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:

Form1

Day 1

Month 10

Year 10

Check Magic

MagicNumberCheck

Date is a magic date

OK

CASE-II:

Form1

Day 11

Month 10

Year 99

Check Magic

MagicNumberCheck

Date is not a magic date

OK

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:**

The screenshot shows a Windows application window titled "Form1". Inside the window, there are three text boxes arranged vertically. The first text box contains the number "1". The second text box is a dropdown menu currently showing "USD". The third text box is another dropdown menu currently showing "INR". Below these three text boxes is a button labeled "Convert". To the right of the main window, a smaller dialog box titled "Money Conversion" is open. This dialog box displays the text "1 USD = 77.42 INR" and has an "OK" button at the bottom.

The screenshot shows a Windows application window titled 'Form1'. Inside the window, there are three vertically stacked controls: a text box containing the number '100', a dropdown menu currently showing 'INR', and another dropdown menu currently showing 'USD'. Below these controls is a button labeled 'Convert'. A modal dialog box is open in the foreground, titled 'Money Conversion'. It displays the text '100 INR = 1.30 USD' and has an 'OK' button at the bottom.

**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:**

The screenshot shows a web-based temperature conversion interface. It has two input fields: 'Temperature' with the value '5' and 'Convert into' with a dropdown menu set to 'Fahrenheit'. A 'Convert' button is located below these fields. A modal dialog box titled 'Celsius to Fahrenheit' is open, displaying the result '41' and an 'OK' button. A large, light gray diagonal watermark reading '24 Narendar' is visible across the lower half of the page.

Input	Output
Temperature: 5	41

The screenshot shows a Windows application interface for temperature conversion. The main window contains a label 'Temperature' next to a text input field containing the number '5'. Below this is a label 'Convert into' next to a dropdown menu currently showing 'Celsius'. A 'Convert' button is positioned below the dropdown. A modal dialog box is open in the foreground, titled 'Fahrenheit to Celsius' with a close button (X) in the top right corner. The dialog displays the result '-15' and has an 'OK' button at the bottom right.

- 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
```

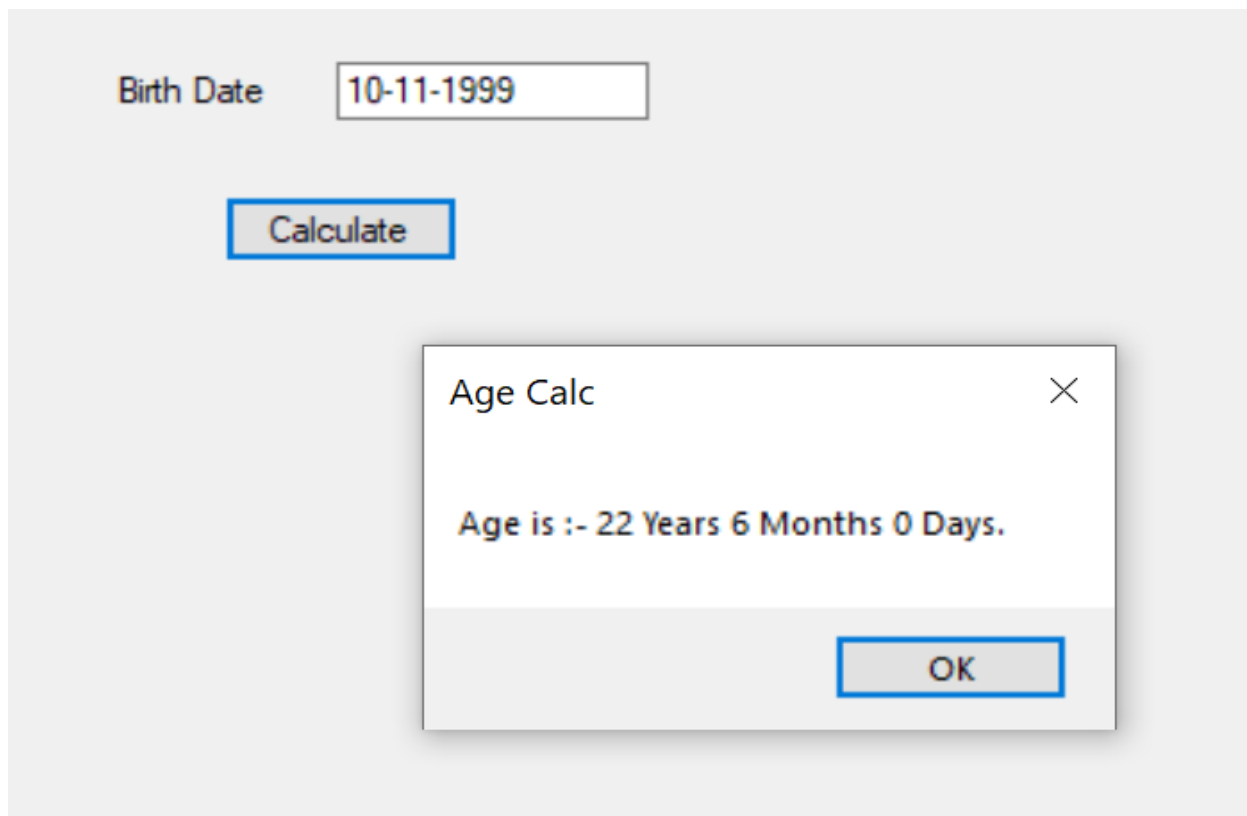


```
{
    public Form1()
    {
        InitializeComponent();
    }

    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#.