

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 is a text input field containing the number "1". Below it are two dropdown menus; the first is set to "USD" and the second is set to "INR". A "Convert" button is positioned below the dropdowns. A modal dialog box titled "Money Conversion" is open in the foreground, displaying the text "1 USD = 77.42 INR" and an "OK" button.

The screenshot shows a Windows application window titled "Form1". Inside the window, there are three input fields stacked vertically: a text box containing the number "100", a dropdown menu currently showing "INR", and another dropdown menu currently showing "USD". Below these fields is a button labeled "Convert". A smaller dialog box titled "Money Conversion" is open in the foreground, displaying the text "100 INR = 1.30 USD" and an "OK" button.

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:

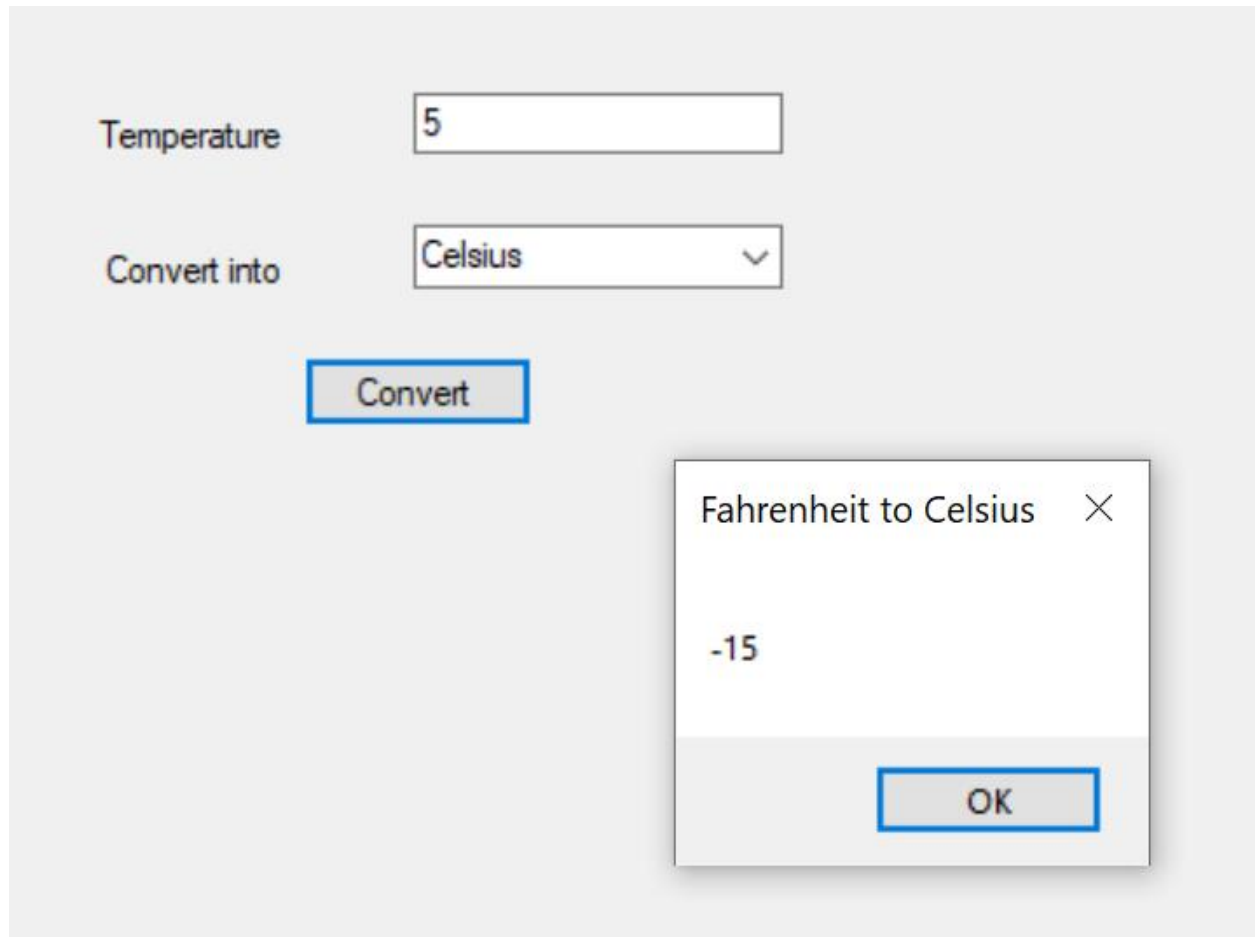
The screenshot shows a web-based temperature conversion interface. It has two input fields: 'Temperature' with the value '5' and 'Convert into' with a dropdown menu set to 'Fahrenheit'. Below these is a 'Convert' button. A modal dialog box titled 'Celsius to Fahrenheit' is open, displaying the result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

Temperature

Convert into

Celsius to Fahrenheit

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 secondary dialog box, titled 'Fahrenheit to Celsius', is open in the foreground, displaying the converted value '-15' and an 'OK' button.

- 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:

The screenshot shows a Windows Form application. At the top, there is a label 'Birth Date' followed by a text box containing the date '10-11-1999'. Below the text box is a button labeled 'Calculate'. In the center of the form, a modal dialog box titled 'Age Calc' is open. The dialog box has a close button (X) in the top right corner. Inside the dialog, it displays the text 'Age is :- 22 Years 6 Months 0 Days.' and an 'OK' button at the bottom right.

CONCLUSION:

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