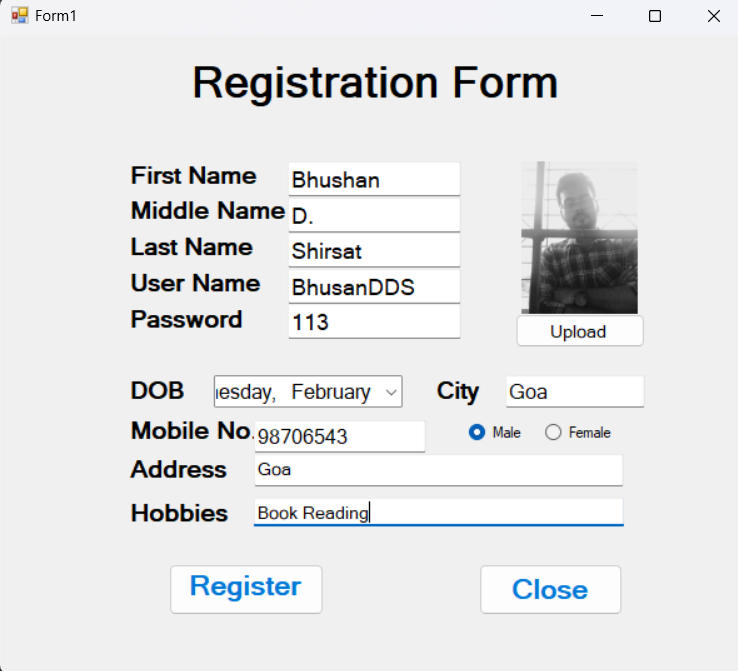
**Practical No. 1**

**Basic Of C#**

**Q.1 Design a window application to demonstrate basic and advanced controls. Create Registration form with following fields first name, middle name, surname, photo, dob, address, mobile no, username, password, gender, hobbies, city. Use appropriate controls to take inputs. And show the entered data on another form.**

**User Interface:**



**Program:**

**Form1.cs**

namespace PractNo1Question1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

this.Close();

}

private void button2\_Click(object sender, EventArgs e)

{

Form2 f2 = new Form2();

f2.fname = txtfname.Text;

f2.mname = txtmname.Text;

f2.lname = txtLname.Text;

f2.dob = dtDOB.Value.ToShortDateString();

f2.add = txtAdd.Text;

f2.mob = txtMob.Text;

f2.uname = uname.Text;

f2.pass = password.Text;

f2.gen = radioBtnMale.Checked ? "Male" : "Female";

f2.hobby = txtHobby.Text;

f2.city = txtCity.Text;

f2.imgB = picBox.Image;

f2.ShowDialog();

}

private void UpBtn\_Click(object sender, EventArgs e)

{

String imageLocation = "";

try

{

OpenFileDialog dialog = new OpenFileDialog();

dialog.Filter = "Image Files (\*.jpg; \*.jpeg; \*.png; \*.gif; \*.bmp)|\*.jpg; \*.jpeg; \*.png; \*.gif; \*.bmp";

if (dialog.ShowDialog() == System.Windows.Forms.DialogResult.OK)

{

imageLocation = dialog.FileName;

picBox.ImageLocation = imageLocation;

}

}catch(Exception)

{

MessageBox.Show("Error:" , "Error",MessageBoxButtons.OK,MessageBoxIcon.Error);

}

}

}

}

**Form2.cs**

namespace PractNo1Question1

{

public partial class Form2 : Form

{

public string fname { get; set; }

public string mname { get; set; }

public string lname { get; set; }

public string uname { get; set; }

public string pass { get; set; }

public string city { get; set; }

public string add { get; set; }

public string hobby { get; set; }

public string mob { get; set; }

public string dob { get; set; }

public Image imgB { get; set; }

public string gen { get; set; }

public Form2()

{

InitializeComponent();

}

private void Form2\_Load(object sender, EventArgs e)

{

lblFname.Text = fname;

lblMname.Text = mname;

lblLname.Text = lname;

lbluname.Text = uname;

lblPass.Text = pass;

lblCity.Text = city;

lblAdd.Text = add;

lblGen.Text = gen;

lblHobby.Text = hobby;

lblMob.Text = mob;

lblDOB.Text = dob;

pictureBox1.Image = imgB;

}

}

}

**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Form1());

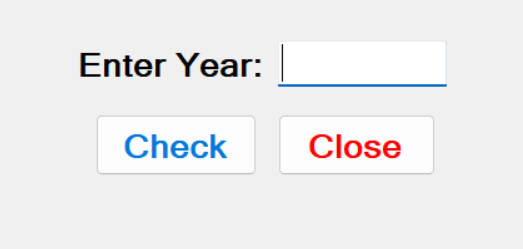
}

**Output:**



**Q.2 Design a window application in c# using objects and classes to find whether an entered year is leap year or not.**

**User Interface:**



**PractNo1Q2.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1Q2 : Form

{

Year y = null;

public Pract1Q2()

{

InitializeComponent();

}

private void Pract1Q2\_Load(object sender, EventArgs e)

{

}

private void btnCheck\_Click(object sender, EventArgs e)

{

try

{

int e2 = Convert.ToInt32(txtYear.Text);

y = new Year(e2);

MessageBox.Show(y.check());

}

catch (Exception ex)

{

MessageBox.Show("Exception Caught!!! " + ex.Message + " at line " + ex.StackTrace);

}

}

private void btnClose\_Click(object sender, EventArgs e)

{

this.Close();

}

}

class Year

{

int y;

public Year()

{

}

~Year()

{

}

public Year(int e)

{

this.y = e;

}

public int getY()

{

return y;

}

public string check()

{

if (((y % 4 == 0) && (y % 100 != 0)) || (y % 400 == 0)) {

return "It is Leap Year";

}

return "It is Not Leap Year";

}

}

}

**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

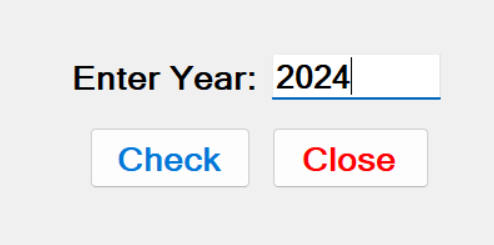
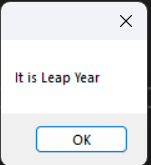
Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1Q2());

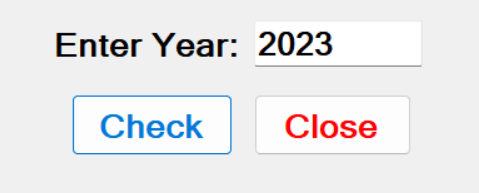
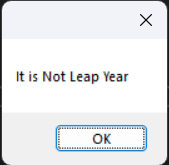
}

**Output:**

**Input is Correct.**

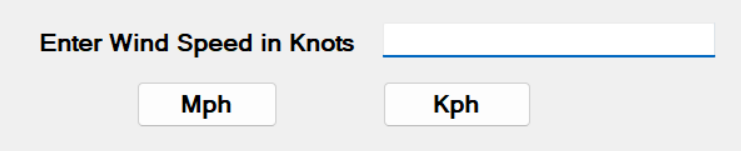
 

**Input is Wrong.**

**Q.3 Design a Window application in c# using objects and classes for wind conversion from knots to mph, kph.**

**User Interface:**



**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1Q3());

}

**PractNo1Q3.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1Q3 : Form

{

Wind d = null;

public Pract1Q3()

{

InitializeComponent();

}

private void btnMPH\_Click(object sender, EventArgs e)

{

double kn = Convert.ToDouble(txt1.Text);

d = new Wind(kn);

MessageBox.Show("Value of MPH:" + d.mph());

}

private void btnKPH\_Click(object sender, EventArgs e)

{

double kn = Convert.ToDouble(txt1.Text);

d = new Wind(kn);

MessageBox.Show("Value of KPH:" + d.Kph());

}

}

class Wind

{

double w;

public Wind()

{

}

public Wind(double p)

{

w = p;

}

~Wind()

{

}

public double getW()

{

return w;

}

public double mph()

{

return 1.15078 \* w;

}

public double Kph()

{

return w \* 1.852;

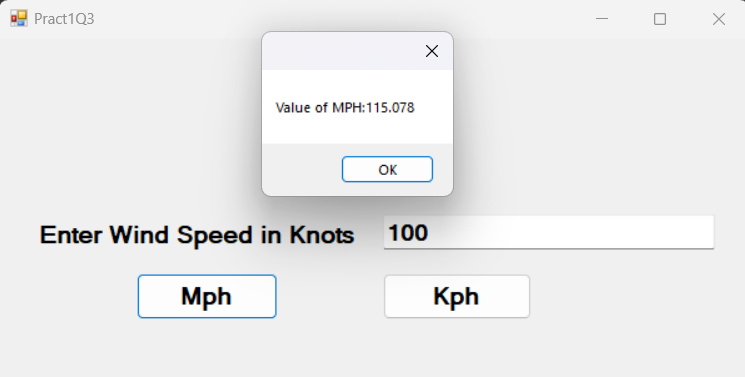
}

}

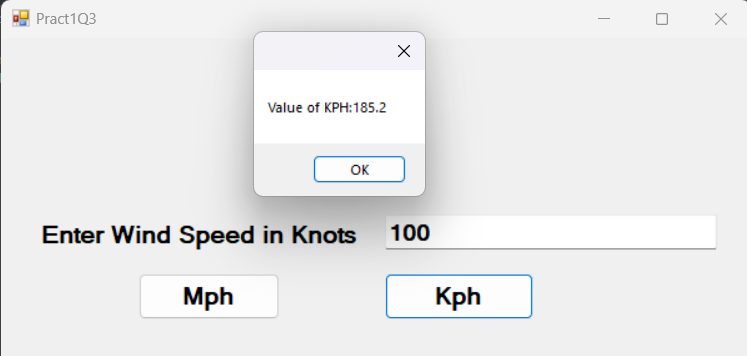
}

**Output:**

**Knots to MPH:**

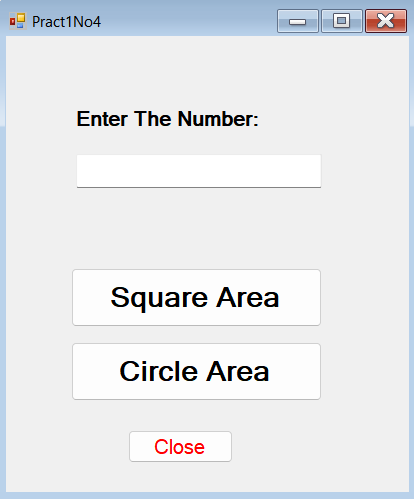


**Knots to KPH:**



**Q.4 Design a Window application to demonstrate multiple inheritance.**

**User Interface:**



**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1No4());

}

**PractNo1Q4.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1No4 : Form

{

public Pract1No4()

{

InitializeComponent();

}

private void baseClass\_Click(object sender, EventArgs e)

{

double s1 = Convert.ToDouble(textBox1.Text);

Shape2 s = new Shape2();

MessageBox.Show("This is " + s.getArea(s1).ToString());

}

private void derClass\_Click(object sender, EventArgs e)

{

double s1 = Convert.ToDouble(textBox1.Text);

Shape2 s = new Shape2(s1);

MessageBox.Show("This is " + s.AreaSqur().ToString());

}

private void btnClose\_Click(object sender, EventArgs e)

{

this.Close();

}

}

public interface circle

{

double getArea(double s);

}

public interface square

{

double AreaSqur();

}

class Shape2 : circle, square

{

double size;

public Shape2(double size)

{

this.size = size;

}

public Shape2() { }

public double getArea(double size)

{

this.size = size;

return size \* 3.14;

}

public double AreaSqur()

{

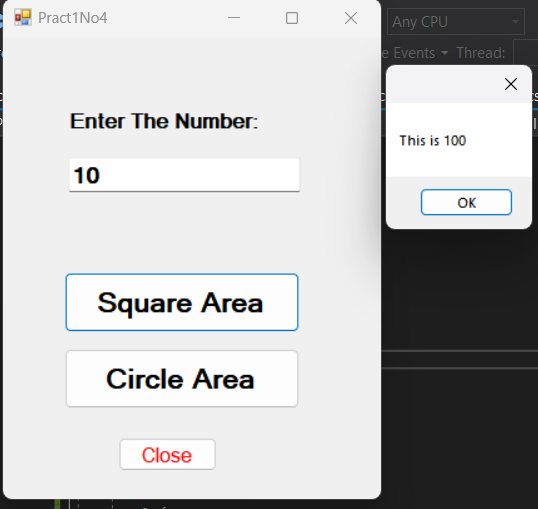
return size \* size;

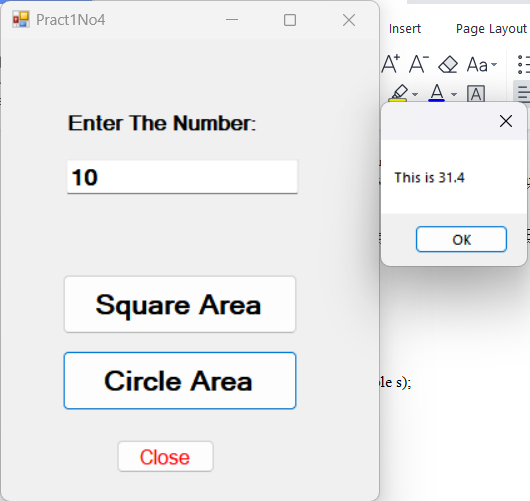
}

}

}

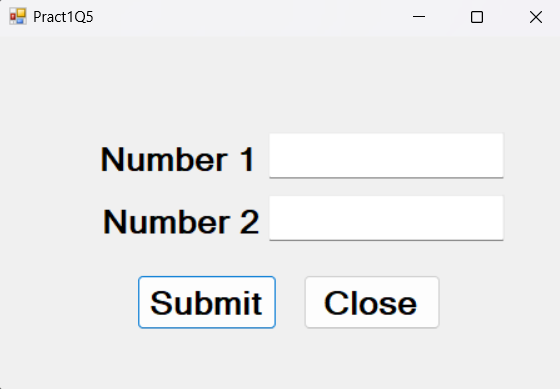
**Output:**





**Q.5 Design a Window application to demonstrate abstract class.**

**User Interface:**



**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1Q5());

}

**PractNo1Q5.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1Q5 : Form

{

public Pract1Q5()

{

InitializeComponent();

}

private void btnSubmit\_Click(object sender, EventArgs e)

{

int a = Convert.ToInt32(txtLength.Text);

int b = Convert.ToInt32(txtBreadth.Text);

Add ad = new Add(a,b);

Sub sb = new Sub(a,b);

Multi ml = new Multi(a,b);

Division dv = new Division(a,b);

MessageBox.Show("Add:" + ad.sol() + ", Substract: " +sb.sol()+", Multiplication: " +ml.sol()+", Division: "+dv.sol());

}

private void btnClose\_Click(object sender, EventArgs e)

{

this.Close();

}

}

abstract class Calculation

{

public virtual int sol() {

return 0;

}

}

class Multi : Calculation

{

private int a;

private int b;

public Multi(int a, int b)

{

this.a = a;

this.b = b;

}

public override int sol()

{

return a\*b;

}

}

class Division : Calculation

{

private int l;

private int w;

public Division(int a, int b)

{

l = a;

w = b;

}

public override int sol()

{

return l/w;

}

}

class Add : Calculation

{

private int l;

private int w;

public Add(int a, int b)

{

l = a;

w = b;

}

public override int sol()

{

return l + w;

}

}

class Sub : Calculation

{

private int l;

private int w;

public Sub(int a, int b)

{

l = a;

w = b;

}

public override int sol()

{

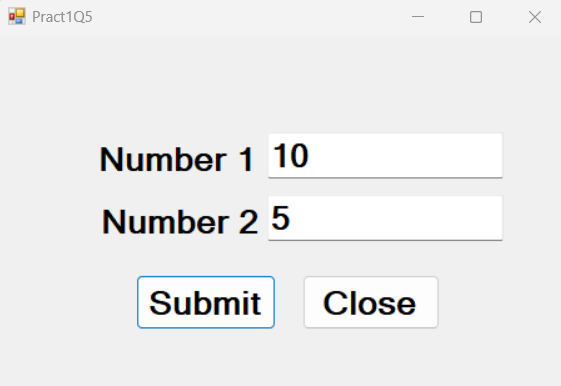
return l - w;

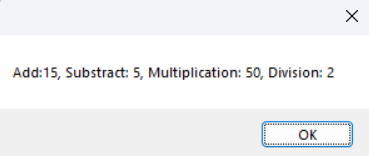
}

}

}

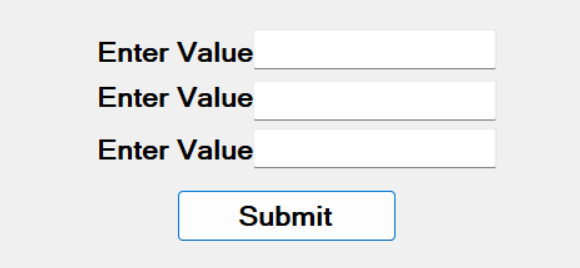
**Output:**





**Q.6 Design a Window application to demonstrate Indexer.**

**User Interface:**



**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1Q6());

}

**PractNo1Q6.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1Q6 : Form

{

IndexerClass team = null;

public Pract1Q6()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

try

{

team = new IndexerClass();

team[0] = textBox1.Text;

team[1] = textBox2.Text;

team[2] = textBox3.Text;

label4.Text = team[0];

label5.Text = team[1];

label6.Text = team[2];

}

catch(Exception ex)

{

MessageBox.Show("Error : " + ex);

}

}

}

class IndexerClass

{

private string[] names = new string[3];

public string this[int i]

{

get

{

return names[i];

}

set

{

names[i] = value;

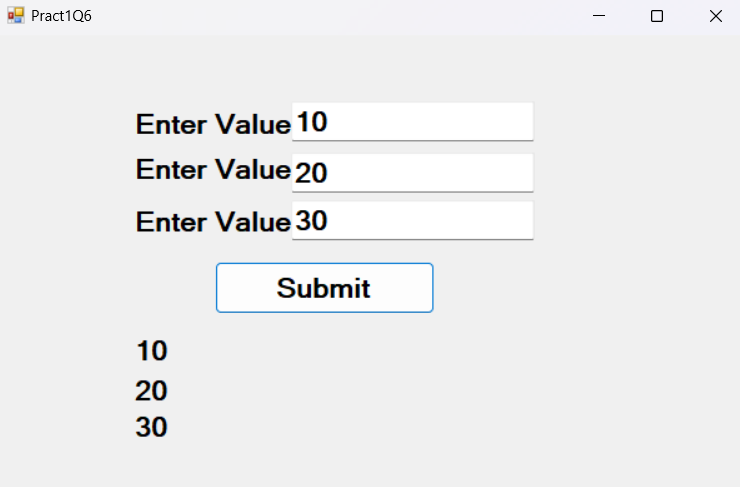
}

}

}

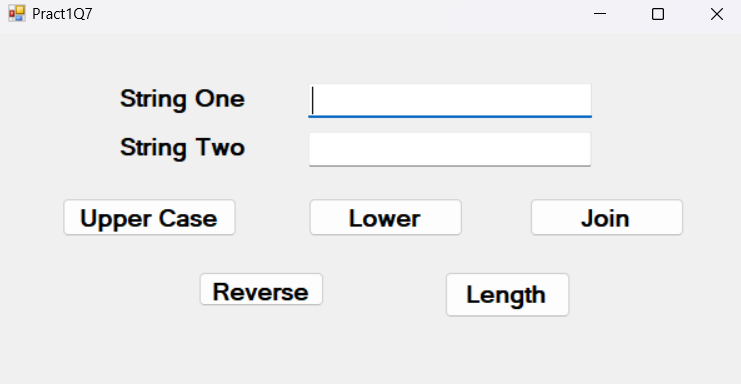
}

**Output:**



**Q.7 Design a Window application to demonstrate string manipulations.**

**User Interface:**



**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1Q7());

}

**PractNo1Q7.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1Q7 : Form

{

public Pract1Q7()

{

InitializeComponent();

}

private void button1\_Click(object sender, EventArgs e)

{

string s1 = textBox1.Text;

string s2 = textBox2.Text;

string p = s1.ToUpper();

string q = s2.ToUpper();

label3.Text = p;

label4.Text = q;

}

private void button2\_Click(object sender, EventArgs e)

{

string s1 = textBox1.Text;

string s2 = textBox2.Text;

string p = s1.ToLower();

string q = s2.ToLower();

label3.Text = p;

label4.Text = q;

}

private void button3\_Click(object sender, EventArgs e)

{

string s1 = textBox1.Text;

string s2 = textBox2.Text;

MessageBox.Show(s1 + " " + s2);

}

private void button4\_Click(object sender, EventArgs e)

{

string s1 = textBox1.Text;

string s2 = textBox2.Text;

string reversed = new string(s1.Reverse().ToArray());

string revered2 = new string(s2.Reverse().ToArray());

MessageBox.Show(reversed +" "+revered2);

}

private void button5\_Click(object sender, EventArgs e)

{

string s1 = textBox1.Text;

string s2 = textBox2.Text;

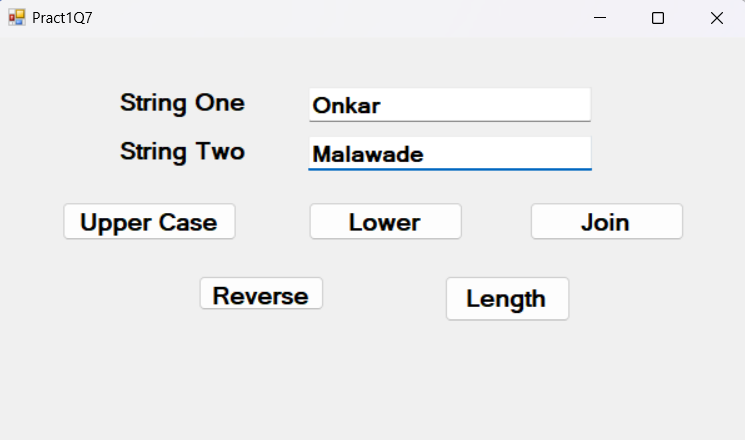
MessageBox.Show("String1 Length: "+s1.Length + ", String2 Length: " + s2.Length);

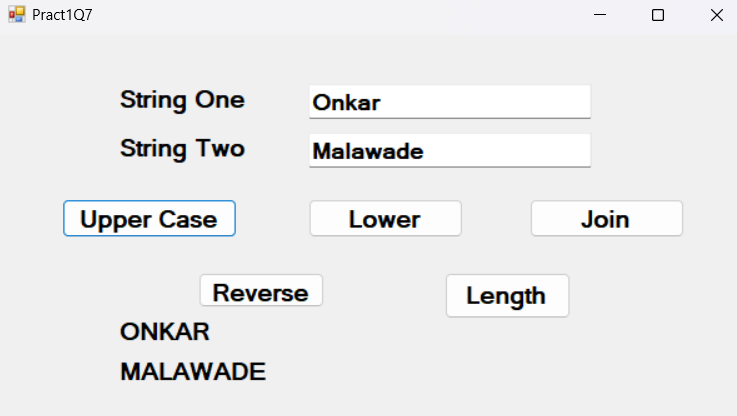
}

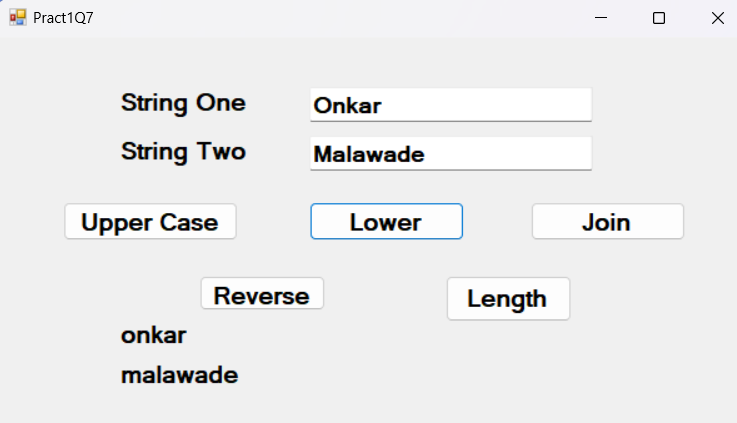
}

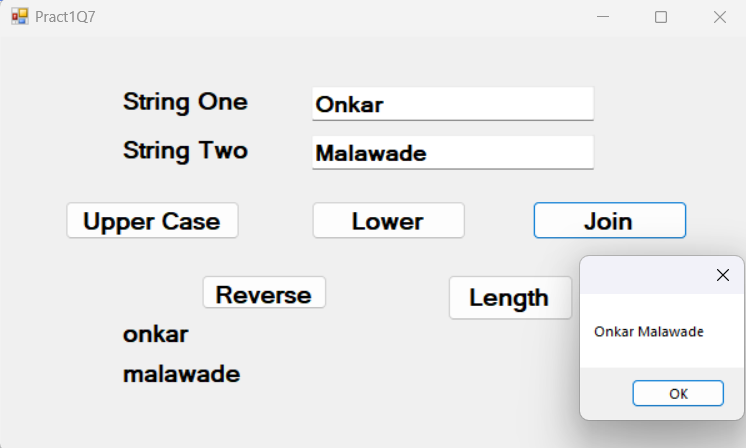
}

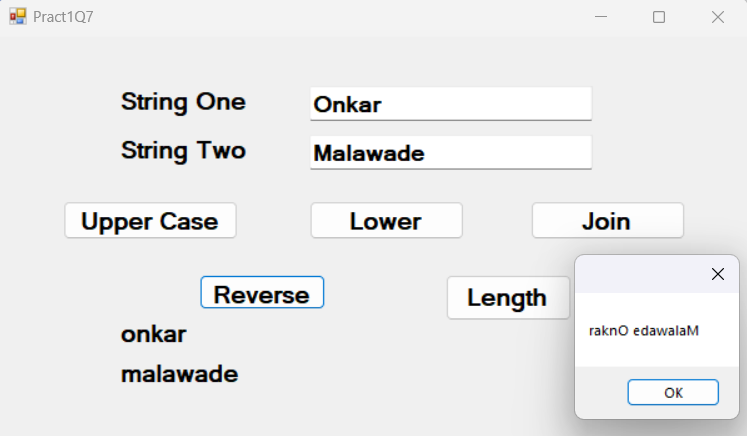
**Output:**

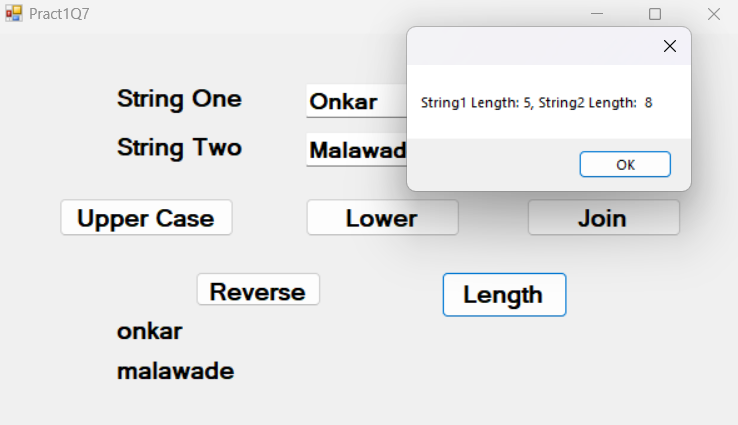






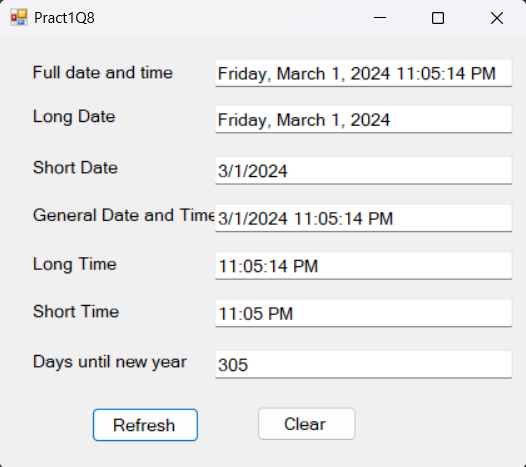






**Q.8 Design a window application to show following output.**

**User Interface:**



**Program.cs**

static void Main()

{

Application.EnableVisualStyles();

Application.SetCompatibleTextRenderingDefault(false);

Application.Run(new Pract1Q8());

}

**PractNo1Q8.cs**

using System.Windows.Forms;

namespace PracticalNo1All

{

public partial class Pract1Q8 : Form

{

DateTime date = DateTime.Now;

public Pract1Q8()

{

InitializeComponent();

}

private void button2\_Click(object sender, EventArgs e)

{

this.Close();

}

private void button1\_Click(object sender, EventArgs e)

{

this.Refresh();

}

private void Pract1Q8\_Load(object sender, EventArgs e)

{

textBox1.Text = date.ToString("F");

textBox2.Text = date.ToString("D");

textBox3.Text = date.ToString("d");

textBox4.Text = date.ToString("G");

textBox5.Text = date.ToString("T");

textBox6.Text = date.ToString("t");

int daysInYear = DateTime.IsLeapYear(date.Year) ? 365 : 366;

textBox7.Text = (daysInYear - date.DayOfYear).ToString();

}

}

}