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| College LaSalle |
| Project - Oriented Object Programming User and Technical Manual |
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| Presented to: Mihai Maftei |

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1. Start by adding a short description of your project, and the languages (technologies) used:
2. I used C#
3. I used Visual studio code 2017 (windows form app)
4. Present the print screens of yours forms, and have a detailed description of the functionalities (step by step).



As the first thing you would see in my application is my dash board. The first two logs from left side is for lotto game (Lotto Max and Lotto 649). When you click on them, they would take you to the separate applications such as I mentioned Max and 649. In the middle, there is a Calculator and above that we have an IP validator application. They both works separately as well. Moreover, on the right side there are two more applications Money Exchange and Temperature Converter. If you click on them, they would take you to their full access. In addition, there is an exit button which would ask you to quit if you really want to.

1. By clicking on Lotto Max application, it would take you to separate application Lotto Max itself. In Lotto Max there are one label, one messagebox, and buttons (Generate, Read file, and Exit). Generate would create 7 + 1 random number out of 50. It will show in message box and read file would show the date in an external text file that will contain the data from the messagebox. In addition, by clicking on Exit button it will give to two options if you want to quit the application or no.
2. Besides Lotto Max there is Lotto 649. It is almost same as Lotto Max besides the fact it generates 6 numbers out of 49 buttons. If we talk about the structure its completely same. It contains same number of buttons and messagebox plus one label and Exit button with same functionality as Lotto Max.
3. On the top, there is an application called IP Address. It has two labels one textbox and three buttons as well. This application only accepts an IP address format and that goes to in the textbox. Reset button resets the data in the textbox. Also, as soon you click on Validate IP button it starts a program Date and Time in the label which has a current date and time saved in the label. At last, there is Exit button it will give to two options if you want to quit the application or no.
4. Below IP Address application there is Calculator. Calculator has one textbox and 18 buttons. It basically does the same job as other calculators. Textbox saves all the inputs and results. It has all the digits from 0 to 9 with addition, subtraction, multiplication, division, dot, and equal sign. All has their own particular values as I mentioned. Moreover, Equal button contains most of the code itself. However, Clear button erases all the data from the textbox and Exit button will give to two options if you want to quit the application or no.
5. In conversions, there is Money Exchange application. It has five radio buttons, three buttons, 10 labels (with information on them) and two textboxes. The radio buttons are used to select the currency form give options such as cad, usd, euro, gbp and not selected to convert them into any. Textboxes contains all the given values by the user and then place the result into the read only textbox. By clicking on the Convert button, it would give the result in the read only textbox and all the calculations are held here. Read file button would show all the data that is in text file which is created by the convert button. In addition, Exit button will give to two options if you want to quit the application or no.
6. Last but least, Temperature Convert application contains two radio buttons, 6 labels, two text boxes, one message box and three buttons. This application converts the temperature from Celsius to Fahrenheit by clicking on radio buttons it selects your selection. Text box on the right side would hold the user value and text box on the right side would give the user results. Message box would show the message about the temperature in itself set by the developer. Convert button contains all the code behind the screen. By clicking on it to would do all so. Furthermore, Read file button would show all the data that is in text file which is created by the convert button. In addition, Exit button will give to two options if you want to quit the application or no.
7. Present the code of your application (forms).

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 FinalProject1811213  
{  
public partial class Dashboard : Form  
{  
public Dashboard()  
{  
InitializeComponent();  
}  
  
private void pictureBox1\_Click(object sender, EventArgs e)  
{  
Lottomax lm = new Lottomax();  
lm.ShowDialog();  
pictureBox1.Focus();  
pictureBox1.Select();  
  
}  
  
private void pictureBox2\_Click(object sender, EventArgs e)  
{  
Lotto649 l649 = new Lotto649();  
l649.ShowDialog();  
pictureBox2.Focus();  
  
}  
  
private void pictureBox5\_Click(object sender, EventArgs e)  
{  
Calculator cl = new Calculator();  
cl.ShowDialog();  
}  
  
private void pictureBox3\_Click(object sender, EventArgs e)  
{  
MoneyExchange me = new MoneyExchange();  
me.ShowDialog();  
}  
  
private void pictureBox4\_Click(object sender, EventArgs e)  
{  
TemperatureConversion tp = new TemperatureConversion();  
tp.ShowDialog();  
}  
  
private void button1\_Click(object sender, EventArgs e)  
{  
if (MessageBox.Show("Do you really want to quit!", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
{  
this.Close();  
}  
}  
  
private void pictureBox6\_Click(object sender, EventArgs e)  
{  
IP4\_Validator ip = new IP4\_Validator();  
ip.ShowDialog();  
}  
  
private void Dashboard\_Load(object sender, EventArgs e)  
{  
  
}  
}  
}

//Lotto Max

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;  
using System.IO;  
  
namespace FinalProject1811213  
{  
public partial class Lottomax : Form  
{  
string dirPath = @"..\..\..\Lottomax.text";  
public Lottomax()  
{  
InitializeComponent();  
}  
  
private void generatetxt\_Click(object sender, EventArgs e)  
{  
Random random = new Random();  
string space = Environment.NewLine;  
int randomNumber = random.Next(1, 50);  
this.messagetxt.Text = randomNumber.ToString();  
  
for (int i = 1; i <= 7; i++)  
{  
randomNumber = random.Next(1, 50);  
messagetxt.Text = messagetxt.Text + space + randomNumber.ToString();  
}  
  
  
  
  
FileStream fs = null;  
string filePath = dirPath;  
DateTime datetime = DateTime.Now;  
  
try  
{  
fs = new FileStream(filePath, FileMode.Append);  
StreamWriter textOut = new StreamWriter(fs);  
textOut.Write("Max;" + datetime + ";" + messagetxt.Text + ";" + "Bonus " + "29" + "\n");  
  
textOut.Close();  
  
}  
catch (FileNotFoundException)  
{  
MessageBox.Show(filePath + "not found" + "File not found");  
}  
catch (DirectoryNotFoundException)  
{  
MessageBox.Show(dirPath + "not found" + "File not found");  
}  
catch (IOException ex)  
{  
MessageBox.Show(ex.Message + "IOException");  
}  
finally  
{  
if (fs != null) fs.Close();  
}  
}  
  
private void readtxt\_Click(object sender, EventArgs e)  
{  
MessageBox.Show(File.ReadAllText(@"..\..\..\Lottomax.Text"),"Gurwinder", MessageBoxButtons.OK);  
}  
  
private void Exittxt\_Click(object sender, EventArgs e)  
{  
if (MessageBox.Show("Do you want to quit!", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
{  
this.Close();  
}  
}  
}  
}

//Lotto649

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;  
using System.IO;  
  
namespace FinalProject1811213  
{  
  
public partial class Lotto649 : Form  
{  
string dirPath = @"..\..\..\Lotto649.Text";  
public Lotto649()  
{  
InitializeComponent();  
}  
  
private void generatetxt\_Click(object sender, EventArgs e)  
{  
Random random = new Random();  
string space = Environment.NewLine;  
int randomNumber = random.Next(1, 49);  
this.messagetxt.Text = randomNumber.ToString();  
  
for (int i = 1; i <= 6; i++)  
{  
randomNumber = random.Next(1, 49);  
messagetxt.Text = messagetxt.Text + space + randomNumber.ToString();  
}  
  
  
  
  
FileStream fs = null;  
string filePath = dirPath;  
DateTime datetime = DateTime.Now;  
  
try  
{  
fs = new FileStream(filePath, FileMode.Append);  
StreamWriter textOut = new StreamWriter(fs);  
textOut.Write("649;" + datetime + ";" + messagetxt.Text + ";" + "Bonus " + "23" + "\n");  
  
textOut.Close();  
  
}  
catch (FileNotFoundException)  
{  
MessageBox.Show(filePath + "not found" + "File not found");  
}  
catch (DirectoryNotFoundException)  
{  
MessageBox.Show(dirPath + "not found" + "File not found");  
}  
catch (IOException ex)  
{  
MessageBox.Show(ex.Message + "IOException");  
}  
finally  
{  
if (fs != null) fs.Close();  
}  
}  
  
private void readtxt\_Click(object sender, EventArgs e)  
{  
MessageBox.Show(File.ReadAllText(@"..\..\..\Lotto649.Text"),"Gurwinder", MessageBoxButtons.OK);  
}  
  
private void Exittxt\_Click(object sender, EventArgs e)  
{  
if (MessageBox.Show("Do you want to quit!", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
{  
this.Close();  
}  
}  
  
  
}  
}

//Calculator

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 FinalProject1811213  
{  
public partial class Calculator : Form  
{  
  
double operand1;  
string op = "";  
bool first = false;  
public Calculator()  
{  
InitializeComponent();  
}  
  
private void button18\_Click(object sender, EventArgs e)  
{  
if (MessageBox.Show("Do you really want to quit!", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
{  
this.Close();  
}  
}  
  
  
  
private void button17\_Click(object sender, EventArgs e)  
{  
  
  
this.textBox1.Text = "0";  
  
  
}  
  
  
private void n1(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true )  
{  
textBox1.Text = "1";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "1";  
}  
}  
  
private void n2(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "2";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "2";  
}  
}  
  
private void n3(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "3";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "3";  
}  
}  
  
private void n4(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "4";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "4";  
}  
}  
  
private void n6(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "6";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "6";  
}  
}  
  
private void n7(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "7";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "7";  
}  
}  
  
private void n8(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "8";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "8";  
}  
}  
  
private void n9(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "9";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "9";  
}  
}  
  
private void n0(object sender, EventArgs e)  
{  
  
textBox1.Text = textBox1.Text + "0";  
  
}  
  
private void nd(object sender, EventArgs e)  
{  
textBox1.Text = textBox1.Text + ".";  
}  
  
private void n5(object sender, EventArgs e)  
{  
if (textBox1.Text == "0" || first == true)  
{  
textBox1.Text = "5";  
first = false;  
}  
else  
{  
textBox1.Text = textBox1.Text + "5";  
}  
}  
  
  
  
private void button6\_Click(object sender, EventArgs e)  
{  
operand1 = Convert.ToDouble(textBox1.Text);  
textBox1.Text = Convert.ToDouble(textBox1.Text) + "";  
op = "+";  
first = true;  
}  
  
private void button8\_Click(object sender, EventArgs e)  
{  
operand1 = Convert.ToDouble(textBox1.Text);  
textBox1.Text = Convert.ToDouble(textBox1.Text) + "";  
op = "-";  
first = true;  
  
}  
  
private void button12\_Click(object sender, EventArgs e)  
{  
operand1 = Convert.ToDouble(textBox1.Text);  
textBox1.Text = Convert.ToDouble(textBox1.Text) + "";  
op = "\*";  
first = true;  
}  
  
private void button15\_Click(object sender, EventArgs e)  
{  
operand1 = Convert.ToDouble(textBox1.Text);  
textBox1.Text = Convert.ToDouble(textBox1.Text) + "";  
op = "/";  
first = true;  
}  
  
private void button16\_Click(object sender, EventArgs e)  
{  
double operand2;  
double currentValue;  
  
operand2 = Convert.ToDouble(textBox1.Text);  
  
if (op == "+")  
{  
currentValue = (operand1 + operand2);  
textBox1.Text = Convert.ToString(currentValue);  
operand1 = currentValue;  
}  
  
if(op == "-")  
{  
currentValue = (operand1 - operand2);  
textBox1.Text = Convert.ToString(currentValue);  
operand1 = currentValue;  
}  
  
if(op == "\*")  
{  
currentValue = (operand1 \* operand2);  
textBox1.Text = Convert.ToString(currentValue);  
operand1 = currentValue;  
}  
  
if(op == "/")  
{  
if (operand2 == 0)  
{  
textBox1.Text =  "You cannot divide with zero";  
}  
else  
{  
currentValue = (operand1 / operand2);  
textBox1.Text = Convert.ToString(currentValue);  
operand1 = currentValue;  
}  
}  
}  
}  
}

//Verify IP

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;  
using System.Text.RegularExpressions;  
  
  
namespace FinalProject1811213  
{  
    public partial class IP4\_Validator : Form  
    {  
         
        public IP4\_Validator()  
        {  
            InitializeComponent();  
        }  
  
        private void button1\_Click(object sender, EventArgs e)  
        {  
            timer1.Start();  
            Regex objRegex = new Regex(@"\b(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\.(25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)\b");  
  
            if (objRegex.IsMatch(maskedTextBox1.Text.Trim()) == true)  
            {  
                MessageBox.Show("The IP is correct.");  
            }  
            else  
            {  
                MessageBox.Show("The IP must have 4 bytes integer number between 0 to 255 seperated by a dot (255.255.255.255)");  
            }  
        }  
  
        private void button3\_Click(object sender, EventArgs e)  
        {  
            if (MessageBox.Show("Do you really want to quit!", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
            {  
                this.Close();  
            }  
        }  
  
        private void button2\_Click(object sender, EventArgs e)  
        {  
            maskedTextBox1.Clear();  
        }  
  
        private void timer1\_Tick(object sender, EventArgs e)  
        {  
            DateTime datetime = new DateTime();  
            datetime = DateTime.Now;  
            this.label3.Text = "Today :"+datetime.ToString("MM.dd.yyyy");  
        }  
  
         
    }  
}

//Money Exchange

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;  
using System.IO;  
  
namespace FinalProject1811213  
{  
public partial class MoneyExchange : Form  
{  
  
string dirPath = @"..\..\..\MoneyExchange.text";  
  
public MoneyExchange()  
{  
InitializeComponent();  
}  
  
private void button3\_Click(object sender, EventArgs e)  
{  
if (MessageBox.Show("Do you want to quit application Money Exchange?", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
{  
this.Close();  
}  
}  
  
  
private void converttxt\_Click(object sender, EventArgs e)  
{  
  
try  
{  
if (Fcad.Checked && tcad.Checked)  
{  
resulttxt.Text = amounttxt.Text;  
}  
  
if (Fcad.Checked && tusd.Checked)  
{  
double amountusd = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountusd\*0.71);  
}  
  
if (Fcad.Checked && teur.Checked)  
{  
double amounteur = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amounteur \* 0.64);  
}  
  
if (Fcad.Checked && tgbp.Checked)  
{  
double amountgbp = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountgbp \* 0.57);  
}  
  
if (Fcad.Checked && tn.Checked)  
{  
double amountnt = Convert.ToDouble(amounttxt.Text);  
//resulttxt.Text = Convert.ToString("Select the right currency!");  
MessageBox.Show("Please select a currency!");  
}  
}  
catch  
{  
MessageBox.Show("Please enter the amount!!!");  
}  
  
  
try  
{  
if (fusd.Checked && tcad.Checked)  
{  
double amountcad = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountcad \* 1.42);  
}  
  
if (fusd.Checked && tusd.Checked)  
{  
double amountusd = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountusd);  
}  
  
if (fusd.Checked && teur.Checked)  
{  
double amounteur = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amounteur \* 0.91);  
}  
  
if (fusd.Checked && tgbp.Checked)  
{  
double amountgbp = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountgbp \* 0.81);  
}  
  
if (fusd.Checked && tn.Checked)  
{  
double amountnt = Convert.ToDouble(amounttxt.Text);  
//resulttxt.Text = Convert.ToString("Select the right currency!");  
MessageBox.Show("Please select a currency!");  
}  
}  
catch  
{  
MessageBox.Show("Please enter the amount!!!");  
}  
  
try  
{  
if (feur.Checked && tcad.Checked)  
{  
double amountcad = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountcad \* 1.56);  
}  
  
if (feur.Checked && tusd.Checked)  
{  
double amountusd = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountusd \* 1.10);  
}  
  
if (feur.Checked && teur.Checked)  
{  
double amounteur = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amounteur);  
}  
  
if (feur.Checked && tgbp.Checked)  
{  
double amountgbp = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountgbp \* 0.89);  
}  
  
if (feur.Checked && tn.Checked)  
{  
double amountnt = Convert.ToDouble(amounttxt.Text);  
//resulttxt.Text = Convert.ToString("Select the right currency!");  
MessageBox.Show("Please select a currency!");  
}  
}  
catch  
{  
MessageBox.Show("Please enter the amount!!!");  
}  
  
try  
{  
if (fgbp.Checked && tcad.Checked)  
{  
double amountcad = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountcad \* 1.75);  
}  
  
if (fgbp.Checked && tusd.Checked)  
{  
double amountusd = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountusd \* 1.24);  
}  
  
if (fgbp.Checked && teur.Checked)  
{  
double amounteur = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amounteur \* 1.12);  
}  
  
if (fgbp.Checked && tgbp.Checked)  
{  
double amountgbp = Convert.ToDouble(amounttxt.Text);  
resulttxt.Text = Convert.ToString(amountgbp);  
}  
  
if (fgbp.Checked && tn.Checked)  
{  
double amountnt = Convert.ToDouble(amounttxt.Text);  
//resulttxt.Text = Convert.ToString("Select the right currency!");  
MessageBox.Show("Please select a currency!");  
}  
}  
catch  
{  
MessageBox.Show("Please enter the amount!!!");  
}  
  
if (fn.Checked)  
{  
MessageBox.Show( "Please select the currency you want to convert!");  
}  
  
  
FileStream fs = null;  
string filePath = dirPath;  
DateTime datetime = DateTime.Now;  
  
  
try  
{  
fs = new FileStream(filePath, FileMode.Append);  
StreamWriter textOut = new StreamWriter(fs);  
if (Fcad.Checked && tcad.Checked)  
{  
textOut.Write(amounttxt.Text + "CAD" + "=" + resulttxt.Text + "CAD" + " " + datetime + "\n");  
}  
if (Fcad.Checked && tusd.Checked)  
{  
textOut.Write(amounttxt.Text + "CAD" + "=" + resulttxt.Text + "USD" + " " + datetime + "\n");  
}  
  
if (Fcad.Checked && teur.Checked)  
{  
textOut.Write(amounttxt.Text + "CAD" + "=" + resulttxt.Text + "EUR" + " " + datetime + "\n");  
}  
  
if (Fcad.Checked && tgbp.Checked)  
{  
textOut.Write(amounttxt.Text + "CAD" + "=" + resulttxt.Text + "GBP" + " " + datetime + "\n");  
}  
  
if (Fcad.Checked && tn.Checked)  
{  
textOut.Write(amounttxt.Text + "CAD" + "=" + resulttxt.Text + "?" + " " + datetime + "\n");  
}  
  
  
if (fusd.Checked && tcad.Checked)  
{  
textOut.Write(amounttxt.Text + "USD" + "=" + resulttxt.Text + "CAD" + " " + datetime + "\n");  
}  
  
if (fusd.Checked && tusd.Checked)  
{  
textOut.Write(amounttxt.Text + "USD" + "=" + resulttxt.Text + "USD" + " " + datetime + "\n");  
}  
  
if (fusd.Checked && teur.Checked)  
{  
textOut.Write(amounttxt.Text + "USD" + "=" + resulttxt.Text + "EUR" + " " + datetime + "\n");  
}  
  
if (fusd.Checked && tgbp.Checked)  
{  
textOut.Write(amounttxt.Text + "USD" + "=" + resulttxt.Text + "GBP" + " " + datetime + "\n");  
}  
  
if (fusd.Checked && tn.Checked)  
{  
textOut.Write(amounttxt.Text + "USD" + "=" + resulttxt.Text + "?" + " " + datetime + "\n");  
}  
  
  
if (feur.Checked && tcad.Checked)  
{  
textOut.Write(amounttxt.Text + "EUR" + "=" + resulttxt.Text + "CAD" + " " + datetime + "\n");  
}  
  
if (feur.Checked && tusd.Checked)  
{  
textOut.Write(amounttxt.Text + "EUR" + "=" + resulttxt.Text + "USD" + " " + datetime + "\n");  
}  
  
if (feur.Checked && teur.Checked)  
{  
textOut.Write(amounttxt.Text + "EUR" + "=" + resulttxt.Text + "EUR" + " " + datetime + "\n");  
}  
  
if (feur.Checked && tgbp.Checked)  
{  
textOut.Write(amounttxt.Text + "EUR" + "=" + resulttxt.Text + "GBP" + " " + datetime + "\n");  
}  
  
if (feur.Checked && tn.Checked)  
{  
textOut.Write(amounttxt.Text + "EUR" + "=" + resulttxt.Text + "?" + " " + datetime + "\n");  
}  
  
  
if (fgbp.Checked && tcad.Checked)  
{  
textOut.Write(amounttxt.Text + "GBP" + "=" + resulttxt.Text + "CAD" + " " + datetime + "\n");  
}  
  
if (fgbp.Checked && tusd.Checked)  
{  
textOut.Write(amounttxt.Text + "GBP" + "=" + resulttxt.Text + "USD" + " " + datetime + "\n");  
}  
  
if (fgbp.Checked && teur.Checked)  
{  
textOut.Write(amounttxt.Text + "GBP" + "=" + resulttxt.Text + "EUR" + " " + datetime + "\n");  
}  
  
if (fgbp.Checked && tgbp.Checked)  
{  
textOut.Write(amounttxt.Text + "GBP" + "=" + resulttxt.Text + "GBP" + " " + datetime + "\n");  
}  
  
if (fgbp.Checked && tn.Checked)  
{  
textOut.Write(amounttxt.Text + "GBP" + "=" + resulttxt.Text + "?" + " " + datetime + "\n");  
}  
textOut.Close();  
  
}  
catch (FileNotFoundException)  
{  
MessageBox.Show(filePath + "not found" + "File not found");  
}  
catch (DirectoryNotFoundException)  
{  
MessageBox.Show(dirPath + "not found" + "File not found");  
}  
catch (IOException ex)  
{  
MessageBox.Show(ex.Message + "IOException");  
}  
finally  
{  
if (fs != null) fs.Close();  
}  
}  
  
private void button2\_Click(object sender, EventArgs e)  
{  
MessageBox.Show(File.ReadAllText(@"..\..\..\MoneyExchange.text"), "Gurwinder", MessageBoxButtons.OK);  
}  
  
private void timer1\_Tick(object sender, EventArgs e)  
{  
  
}  
}  
}

// Temperature converter

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;  
using System.IO;  
  
namespace FinalProject1811213  
{  
public partial class TemperatureConversion : Form  
{  
string dirPath = @"..\..\..\TempConv.text";  
public TemperatureConversion()  
{  
InitializeComponent();  
}  
  
private void button1\_Click(object sender, EventArgs e)  
{  
try  
{  
if (fromctof.Checked)  
{  
double c = Convert.ToDouble(ctxt.Text);  
ftxt.Text = Convert.ToString((c \* 1.8) + 32);  
if (c == 100)  
{  
messagetxt.Text = "Water boils";  
}  
if (c == 40)  
{  
messagetxt.Text = "Hot Bath";  
}  
if (c == 37)  
{  
messagetxt.Text = "Body temperature";  
}  
if (c == 30)  
{  
messagetxt.Text = "Beach Weather";  
}  
if (c == 21)  
{  
messagetxt.Text = "Room Temerature";  
}  
if (c == 10)  
{  
messagetxt.Text = "Cool Day";  
}  
if (c == 0)  
{  
messagetxt.Text = "Freezing point of water";  
}  
if (c == -18)  
{  
messagetxt.Text = "Very Cold Day";  
}  
if (c == -40)  
{  
messagetxt.Text = "Extremely Cold Day \n (and the same number!)";  
}  
}  
  
if (fromftoc.Checked)  
{  
double f = Convert.ToDouble(ctxt.Text);  
ftxt.Text = Convert.ToString((f - 32) / 1.8);  
  
if (f == 212)  
{  
messagetxt.Text = "Water boils";  
}  
if (f == 104)  
{  
messagetxt.Text = "Hot Bath";  
}  
if (f == 98.6)  
{  
messagetxt.Text = "Body temperature";  
}  
if (f == 86)  
{  
messagetxt.Text = "Beach Weather";  
}  
if (f == 70)  
{  
messagetxt.Text = "Room Temerature";  
}  
if (f == 50)  
{  
messagetxt.Text = "Cool Day";  
}  
if (f == 32)  
{  
messagetxt.Text = "Freezing point of water";  
}  
if (f == 0)  
{  
messagetxt.Text = "Very Cold Day";  
}  
if (f == -40)  
{  
messagetxt.Text = "Extremely Cold Day \n (and the same number!)";  
}  
}  
}  
catch (Exception)  
{  
MessageBox.Show("Please select the appropriate temperature!");  
}  
  
  
FileStream fs = null;  
string filePath = dirPath;  
DateTime datetime = DateTime.Now;  
  
try  
{  
fs = new FileStream(filePath, FileMode.Append);  
StreamWriter textOut = new StreamWriter(fs);  
if (fromctof.Checked)  
{  
textOut.Write(ctxt.Text + "C" + "=" + ftxt.Text + "F" + " " + datetime + "\n");  
}  
if (fromftoc.Checked)  
{  
textOut.Write(ctxt.Text + "F" + "=" + ftxt.Text + "C" + " " + datetime + "\n");  
}  
//textOut.Write(" - \n  - " + messagetxt.Text);  
textOut.Close();  
  
}  
catch (FileNotFoundException)  
{  
MessageBox.Show(filePath + "not found" + "File not found");  
}  
catch (DirectoryNotFoundException)  
{  
MessageBox.Show(dirPath + "not found" + "File not found");  
}  
catch (IOException ex)  
{  
MessageBox.Show(ex.Message + "IOException");  
}  
finally  
{  
if (fs != null) fs.Close();  
}  
}  
  
  
private void button3\_Click(object sender, EventArgs e)  
{  
if (MessageBox.Show("Do you want to quit!", "Close App", MessageBoxButtons.YesNo).ToString() == "Yes")  
{  
this.Close();  
}  
}  
  
private void button2\_Click(object sender, EventArgs e)  
{  
MessageBox.Show(File.ReadAllText(@"..\..\..\TempConv.text"), "Gurwinder", MessageBoxButtons.OK);  
}  
  
private void fromftoc\_CheckedChanged(object sender, EventArgs e)  
{  
  
label2.Text = "F";  
label3.Text = "C";  
  
}  
  
private void fromctof\_CheckedChanged(object sender, EventArgs e)  
{  
label2.Text = "C";  
label3.Text = "F";  
}  
}  
}

1. Present the classes and/or methods that you create or you did use in the project.

|  |  |
| --- | --- |
| **Class/Method Name** | **Description** |
| 1. public classes | Calculator.cs  Dashboard.cs  Lotto649.cs  Lottomax.cs  MoneyExchange.cs  TemperatureConversion.cs  Verif\_IP.cs |
| 1. public constructor() | public Dashboard() { InitializeComponent(); }  public Lottomax() { InitializeComponent(); }  public Calculator() { InitializeComponent(); } public Lotto649() { InitializeComponent(); } public MoneyExchange() { InitializeComponent(); } public TemperatureConversion () { InitializeComponent(); }  public Verif\_IP () { InitializeComponent(); } |

1. Present the difficulties that you have, what was the hardest and the easiest part of your project.

The most difficult part for me was Lotto Max and Lotto 649. It was really hard to generate that last bonus number. The easiest part was to design everything.