**Visual Programming**

**Lab Journal - Lab 7**

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Enrollment #: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Class/Section: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Objective**

The Objective of this lab are to understand the following concepts

* Open File Dialog
* Save File Dialog
* Font Dialog
* Color Dialog
* Folder Browser Dialog
* Print Dialog
* **Class Library**

**Task 1 :**

Implement the following exercises.

**Exercise 1**

|  |
| --- |
| Write a program that implements the Illustration given below using Open File Dialog Technique    Description : if the user click on the ‘Open’ button control it prompts the open file dialog. When the user select any text file then all the text of that file must be show in the richTextbox as illustrated above. |

**Solution :**

**Form1.cs :**

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 WindowsFormsApp1

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

//OPEN FILE DIALOG DOC: https://msdn.microsoft.com/en-us/library/system.windows.forms.openfiledialog(v=vs.110).aspx

private void open\_button1\_Click(object sender, EventArgs e)

{

OpenFileDialog obj = new OpenFileDialog(); //Displays a standard dialog box that prompts the user to open a file.

obj.DefaultExt = "\*.txt"; //Gets or sets the default file name extension.(Inherited from FileDialog.)

obj.InitialDirectory = @"C:/"; //Gets or sets the initial directory displayed by the file dialog box.(Inherited from FileDialog.)

obj.Filter = "Text Files(\*.txt)|\*.txt|All files(\*.\*)|\*.\*"; // Gets or sets the current file name filter string, which determines the choices that appear in the "Save as file type" or "Files of type" box in the dialog box.(Inherited from FileDialog.)

if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK) //Runs a common dialog box with the specified owner.(Inherited from CommonDialog.)

{

richTextBox1.Text = File.ReadAllText(obj.FileName.ToString());

}

}

private void richTextBox1\_TextChanged(object sender, EventArgs e)

{

}

}

}

**Exercise 2**

|  |
| --- |
| Write a Program which is the extention of the previous program. Illustration is provided below    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 open  {  public partial class Form1 : Form  {  public Form1()  {  InitializeComponent();  }  private void button1\_Click(object sender, EventArgs e)  {  FontDialog obj = new FontDialog();  if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK)  {  richTextBox1.SelectionFont = obj.Font;  }  }  private void button2\_Click(object sender, EventArgs e)  {  ColorDialog obj = new ColorDialog();  if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK)  {  richTextBox1.SelectionColor = obj.Color;  }  }  private void button3\_Click(object sender, EventArgs e)  {  Stream my;  OpenFileDialog obj = new OpenFileDialog();  if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK)  {  if ((my = obj.OpenFile()) != null)  {  string str = obj.FileName;  string l = File.ReadAllText(str);  richTextBox1.Text = l;  }  }  }  private void button4\_Click(object sender, EventArgs e)  {  OpenFileDialog obj = new OpenFileDialog();  obj.DefaultExt = "\*.txt";  obj.InitialDirectory = @"C:/";  obj.Filter = "Text Files(\*.txt)|\*.txt|All files(\*.\*)|\*.\*";  if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK)  { richTextBox1.Text = obj.FileName; }  }  private void button5\_Click(object sender, EventArgs e)  {  SaveFileDialog obj = new SaveFileDialog();  obj.DefaultExt = "\*.rtf";  obj.Filter = "RTF files|\*.rtf";  if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK)  { richTextBox1.SaveFile(obj.FileName, RichTextBoxStreamType.RichText); }  }  }  }  Add an additional button named ‘Save’ which will again save the text in the richTextbox as Microsoft Word file. |
|  |
|  |

**Solution :**

**Form1.cs :**

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 Lab7\_Task2

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void open\_button1\_Click(object sender, EventArgs e)

{

OpenFileDialog obj = new OpenFileDialog(); //Displays a standard dialog box that prompts the user to open a file.

obj.DefaultExt = "\*.txt"; //Gets or sets the default file name extension.(Inherited from FileDialog.)

obj.InitialDirectory = @"C:/"; //Gets or sets the initial directory displayed by the file dialog box.(Inherited from FileDialog.)

obj.Filter = "Text Files(\*.txt)|\*.txt|All files(\*.\*)|\*.\*"; // Gets or sets the current file name filter string, which determines the choices that appear in the "Save as file type" or "Files of type" box in the dialog box.(Inherited from FileDialog.)

if (obj.ShowDialog() == System.Windows.Forms.DialogResult.OK) //Runs a common dialog box with the specified owner.(Inherited from CommonDialog.)

{

richTextBox1.Text = File.ReadAllText(obj.FileName.ToString());

}

}

private void save\_button2\_Click(object sender, EventArgs e)

{

SaveFileDialog obj = new SaveFileDialog();

obj.DefaultExt = "\*.rtf";

obj.Filter = "RTF files|\*.rtf";

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

{

richTextBox1.SaveFile(obj.FileName, RichTextBoxStreamType.RichText);

}

}

}

}

**Exercise 3**

|  |
| --- |
| Write a program that implements the functionality of the following design illusterated below    ‘Open’ and ‘Save’ will be the same as you did in the previous tasks. The purpose of ‘font’ and ‘Color’ dialoges will change the font and colour of the text which you will select in the richTextbox. |

**Exercise 4 :**

|  |
| --- |
| Write a program in console application that implements the simple calculator using ‘**Class Library’**.  Class Library description :  An ‘Add’ method that returns the addtion of two number.  An ‘Subtarct’ method that returns the subtraction of two numbers.  An ‘Multiple’ method that returns the multiplication of the two numbers and vice versa.  When you have done with that build that class library and save it.  Now, make other project that Include this class library using Add References and call its different methods and show the result on the console. |

**Solution :**

**Form1.cs :**

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 Lab7\_Task3

{

public partial class Form1 : Form

{

public Form1()

{

InitializeComponent();

}

private void font\_button1\_Click(object sender, EventArgs e)

{

FontDialog obj = new FontDialog();

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

{

richTextBox1.SelectionFont = obj.Font;

}

}

private void color\_button2\_Click\_1(object sender, EventArgs e)

{

ColorDialog obj = new ColorDialog();

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

{

richTextBox1.SelectionColor = obj.Color;

}

}

private void open\_with\_button3\_Click\_1(object sender, EventArgs e)

{

Stream my;

OpenFileDialog obj = new OpenFileDialog();

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

{

if ((my = obj.OpenFile()) != null)

{

string str = obj.FileName;

string l = File.ReadAllText(str);

richTextBox1.Text = l;

}

}

}

private void open\_button4\_Click\_1(object sender, EventArgs e)

{

OpenFileDialog obj = new OpenFileDialog();

obj.DefaultExt = "\*.txt";

obj.InitialDirectory = @"C:/";

obj.Filter = "Text Files(\*.txt)|\*.txt|All files(\*.\*)|\*.\*";

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

{ richTextBox1.Text = obj.FileName; }

}

private void save\_button5\_Click\_1(object sender, EventArgs e)

{

SaveFileDialog obj = new SaveFileDialog();

obj.DefaultExt = "\*.rtf";

obj.Filter = "RTF files|\*.rtf";

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

{

richTextBox1.SaveFile(obj.FileName, RichTextBoxStreamType.RichText);

}

}

}

}

**Implement the given exercises and get them checked by your instructor. If you are unable to complete the tasks in the lab session, deposit this journal alongwith your programs (printed or handwritten) before the start of the next lab session.**

**Library :**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace yoooo

{

public class Calculator

{

public int add(int a, int b)

{ return a + b; }

public int sub(int a, int b)

{ return a - b; }

public int mul(int a,int b)

{ return a \* b; }

public int div(int a,int b)

{

if (b == 0) { return -1; }

else

{ return a / b; }

}

}

}

**Program :**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

using yoooo;

namespace ConsoleApplication4

{

class Program

{

static void Main(string[] args)

{

int result;

Calculator obj = new Calculator();

int a = int.Parse(Console.ReadLine());

int b = int.Parse(Console.ReadLine());

result=obj.add(a, b);

Console.WriteLine(result);

result = obj.sub(a, b);

Console.WriteLine(result);

result = obj.mul(a, b);

Console.WriteLine(result);

result = obj.div(a, b);

if (result==-1)

{ Console.WriteLine("B must be greater than 0"); }

else{

Console.WriteLine(result); }

Console.ReadLine();

}

}

}

|  |  |  |
| --- | --- | --- |
| **S No.** | **Exercise** | **Checked By:** |
| 1. | Exercise 1 |  |
| 2. | Exercise 2 |  |
| 3. | Exercise 3 |  |

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