Assignment 5

Windows Forms (WF) Application

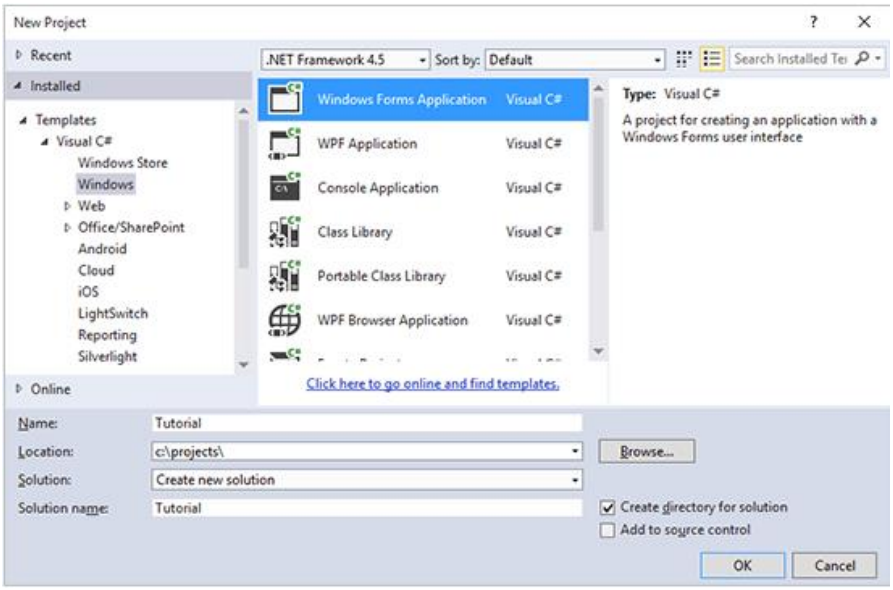
What are Windows form applications?

A Windows forms application is one that runs on the computer and has a collection of controls text boxes, list boxes, labels, etc.

Windows Form

Create a New Project

1. **Start a New Project**:
   - In the **Start Page** or **File** menu, click on **File** > **New** > **Project...**.
   - Alternatively, if you are already inside Visual Studio, click **New Project** from the **Start Page** or go to **File** > **New** > **Project**.
2. **Select the Project Type**:
   - In the **New Project** dialog, ensure that the **Installed Templates** on the left pane is set to **Visual C#**.
   - Then, click on **Windows** to expand it and select **Windows Forms Application**.
3. **Configure Your Project**:
   - **Name**: Enter a name for your project in the **Name** field.
   - **Location**: Choose a location where you want to save your project.
   - **Solution Name**: You can keep the default or provide a new name.
   - **Create Directory for Solution**: Make sure this option is checked if you want a separate folder for your solution.
4. **Click OK**: This will create a new Windows Forms Application project.



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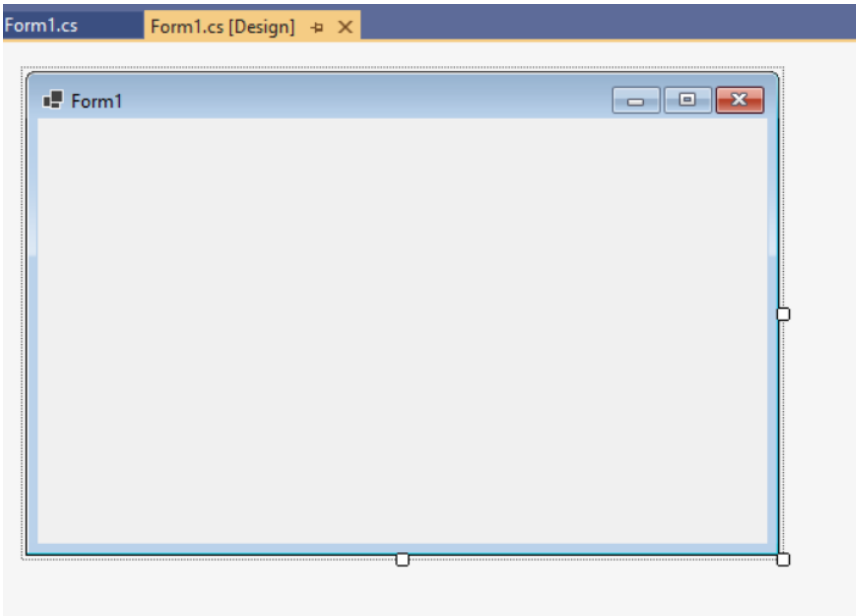
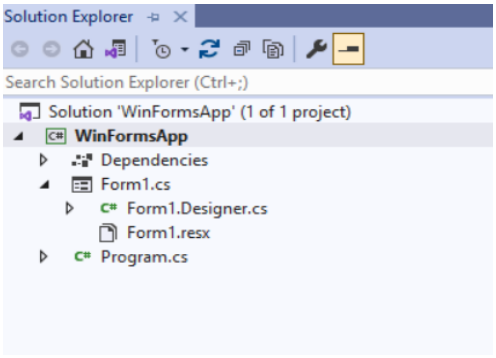


Add Controls to Your Form

1. **Open the Designer View**:
   - In **Solution Explorer**, double-click on `Form1.cs` to open the form in **Design** view. This view allows you to visually design your form.
2. **Open the Toolbox**:
   - If the **Toolbox** is not visible, go to **View** > **Toolbox**. It usually appears on the left side of the Visual Studio window.
3. **Add Controls**:
   - Drag and drop controls from the **Toolbox** onto your form. Common controls include:
     - **Button**: For clickable buttons.
     - **Label**: For displaying text.
     - **TextBox**: For input fields.
     - **ComboBox**: For drop-down lists.
     - **ListBox**: For selectable lists.
4. **Configure Control Properties**:
   - Select a control on the form, and use the **Properties** window (usually on the right side) to adjust properties like `Name`, `Text`, `Size`, and `Location`.



Program. cs is the name of the main program

default code file created when a new application is created in Visual Studio. This code will contain the startup code for the application as a whole.

From1.cs is the form component

This file will contain all of the code for the Windows Form application.

Access the Code Window

1. **Open the Code-Behind File**:
   - To write code for your form, you need to access the code-behind file.
   - In **Solution Explorer**, right-click on `Form1.cs` and select **View Code**, or double-click on the form in **Design** view and it will switch to the code view.
2. **Add Event Handlers**:
   - To add functionality to your controls, such as a button click, you need to write event handlers. For instance:
     - **Double-click** on a control (e.g., a Button) in **Design** view. Visual Studio will automatically generate an event handler method in the code window and take you to it.
     - You can manually add event handlers in the code window. For example:

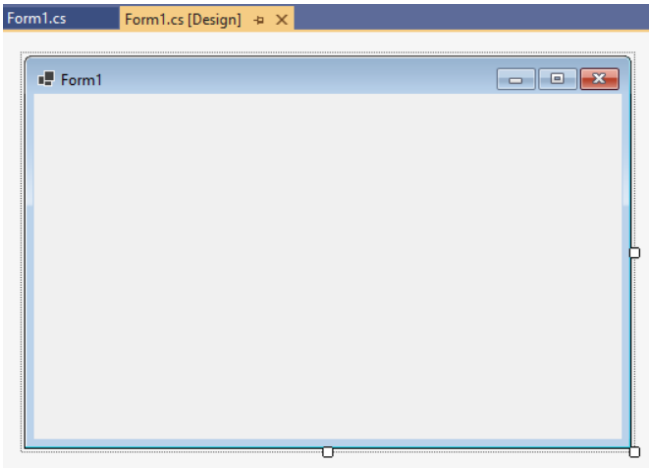
```
private void button1_Click(object sender, EventArgs e)
{
    MessageBox.Show("Hello, World!");
}
```

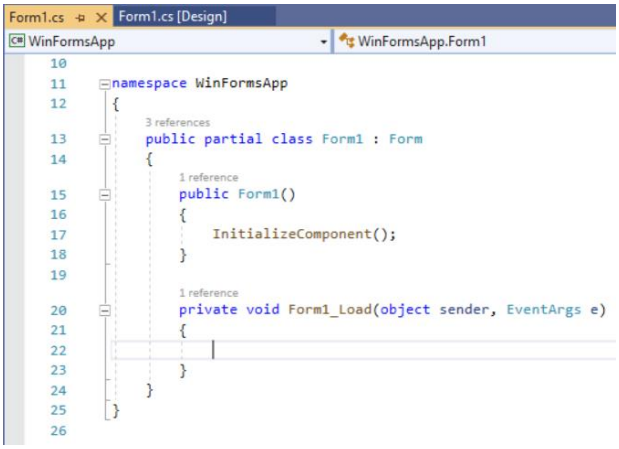
3. **Write Additional Code**:
   - In the code window, you can write other methods, handle events, and manipulate controls. For example:

```
public partial class Form1 : Form
{
    public Form1()
    {
        InitializeComponent();
    }

    private void button1_Click(object sender, EventArgs e)
    {
        label1.Text = "Button clicked!";
    }
}
```

4. **Switch Between Design and Code View**:
   - To toggle between the **Design** view and the **Code** view, use the tabs at the bottom of the form designer or right-click on the form file in **Solution Explorer** and choose **View Designer** or **View Code**.





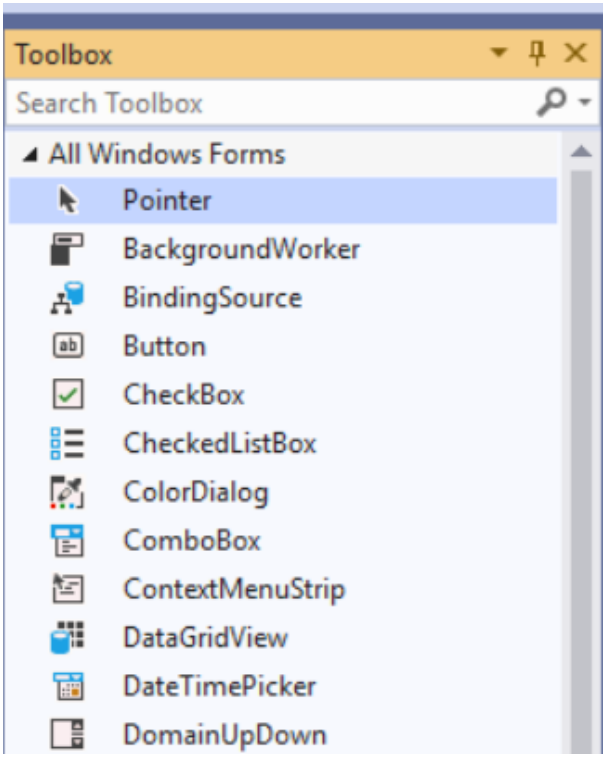
Form.cs (Design)- Design view

Form.cs - code view

toolbox components

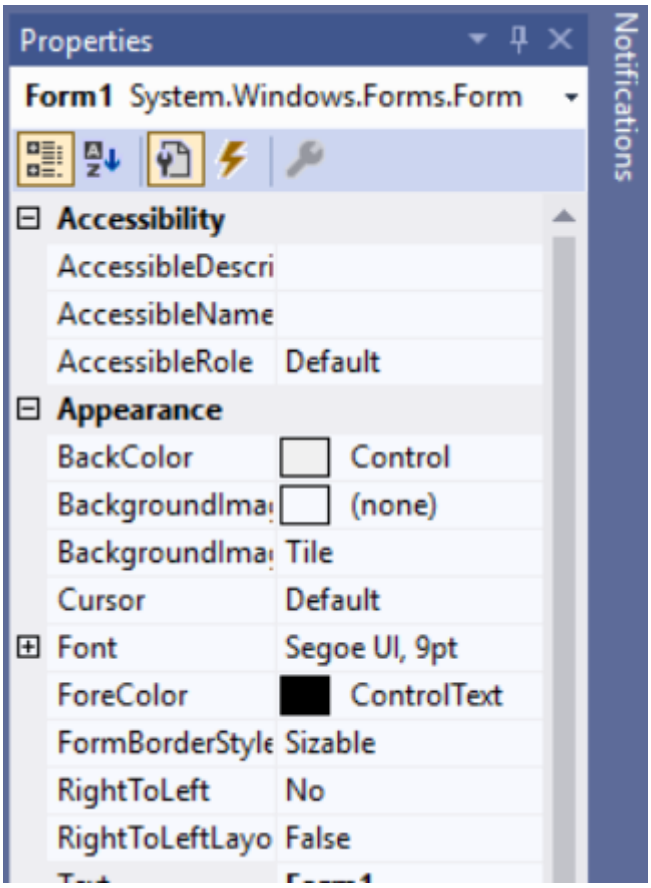
The list of all controls is included in the toolbox

Select View -> Toolbox



Properties window: To go to the properties of a control

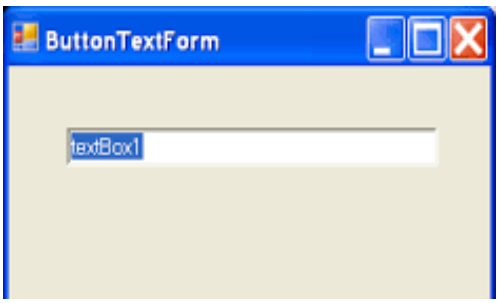
Select View -> properties



Adding Controls to a form

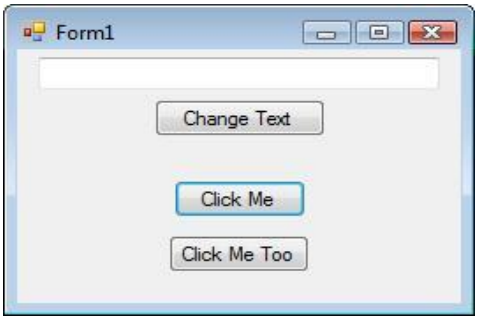
Text boxes

A textbox is used for allowing a user to enter some text on the Windows application in C#.



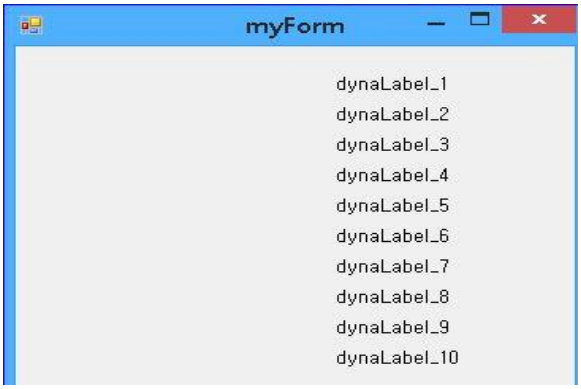
Buttons

A button is used to allow the user to click on a button which would then start the processing of the form.



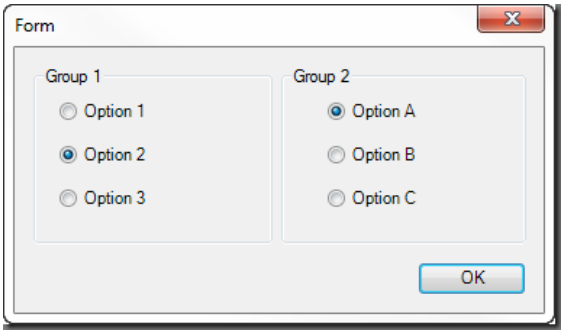
Labels

A button is used to allow the user to click on a button which would then start the processing of the form

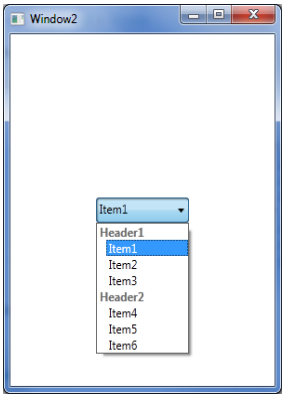


radio buttons

A Radiobutton is used to display a list of items out of which the user can choose one.

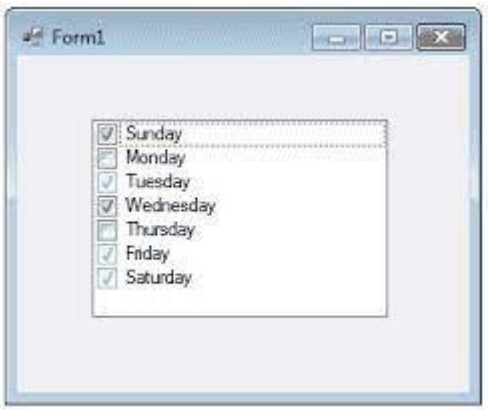


Combo boxes



checkboxes

A checkbox is used to provide a list of options in which the user can choose multiple choices.



There are many more controls available in the toolbox.

Naming Convention

Button	btn
CheckBox	chk
ComboBox	cbo
Control	ctr
DataTable	dt
Form	frm
GroupBox	grp
Timer	tmr
Horizontal ScrollBar	hsb

Label	lbl
ListBox	lst
MainMenu*	mnu
OpenFileDialog	ofd
PictureBox	pic
RadioButton	rdb
SaveFileDialog	sfd
String	str
TabControl	tab
TextBox	txt
Vertical Scroll Bar	vsb

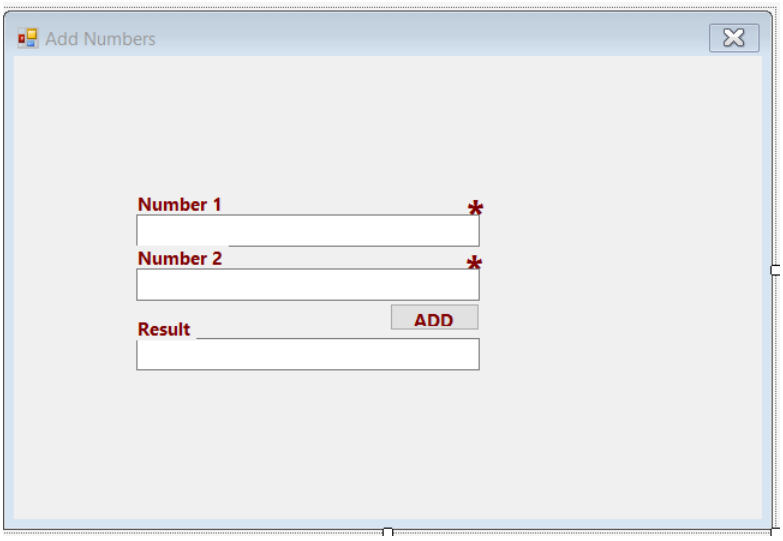
Exercises

Q1

Hello world in Windows form

Q2

Add two numbers and display them in a text box



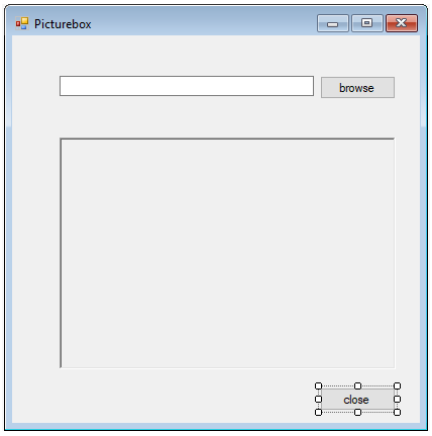
Q3

- Concatenate two textboxes and display them in another text box
- Concatenate two textboxes and display them in another label
- Concatenate two textboxes and show them in another list box

Q4

i. Add new form to your Project and Set it's name to "frmpicture".(Project -> Add Windows Form)

ii. Add one textbox Control, three button Control , OpenFileDialog Control And PictureBox Control to your form and create Following Interface



iii. Set Following properties for controls by using properties windows.

Form	Name=frmpicture
TextBox1	Name=txtpath Text=
Button1	Name=btnbrowse Text=Browse Picture
Button2	Name=btnclose Text=Close
PictureBox1	Name=picpicture Borderstyle=Fixed3D SizeMode= StretchImage
OpenFileDialog	Name=ofdpicture

iv. Write following code segment in click event procedure of the Browse Picture Button and Run frmpicture form.

```
ofdpicture.ShowDialog();
txtpath.Text = ofdpicture.FileName;
picpicture.Image = Image.FromFile(ofdpicture.FileName);
```

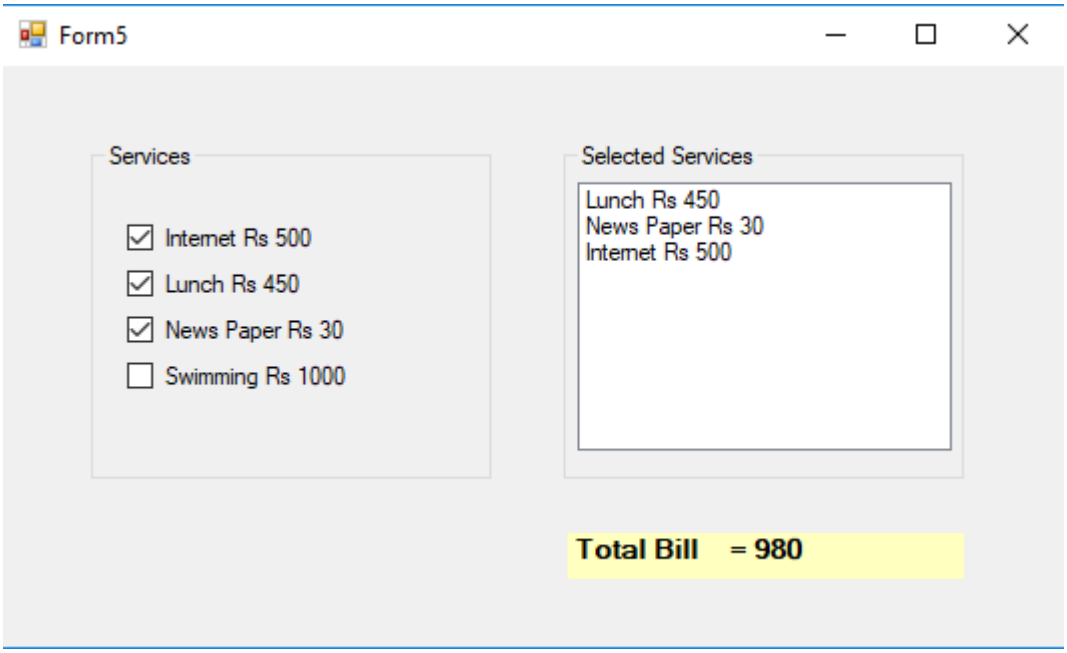
v. Add color Dialog control to frmpicture form .
- Set its name to "cdlcolor"
- Choose DoubleClick event procedure of the frmpicture form and write code as below

```
cdlcolor.ShowDialog();
this.BackColor = cdlcolor.Color;
```

Run your project again and try to change background color of the frmpicture form.
Try to display the massage box when you close the frmpicture form
Hint
Syntax of the messagebox
MessageBox.Show("Your Message Here“, ”Title”, MessageBoxButton , MessageBoxIcon)

Q4

Once you have selected option(s), it's summing up and should display the total value in a label.



Q6

Use two panels, one for gender and one for language selection
And once click the view button displays the gender and language as a label output