

## A201/A505 Laboratory Session #2

### LAB GOALS

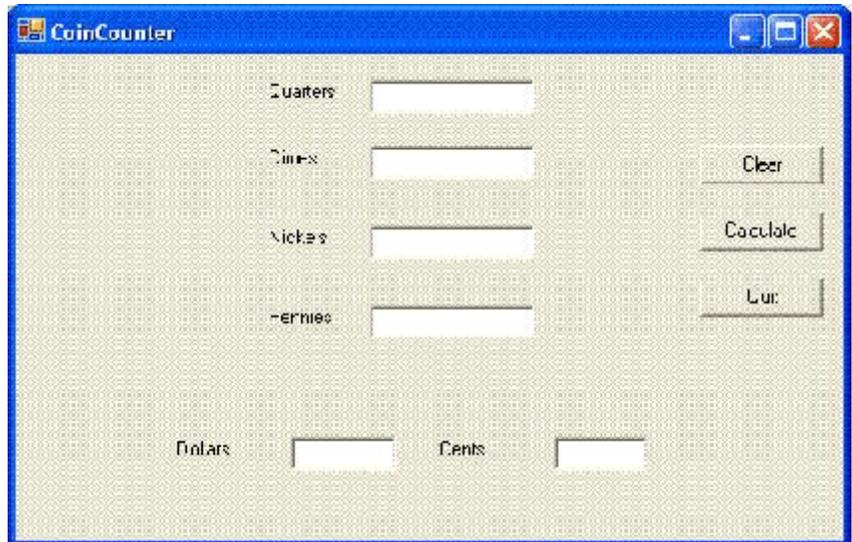
To develop a simple windows application using the VB environment. Also to learn to use variables, data types, basic arithmetic operators, type conversion and error checking.

You will use: Buttons, Textboxes, Labels, Dim, integer, arithmetic operations (+, MOD, \, /), type conversion functions such as CInt (), Compiler directives such as Option Strict, Option Explicit

To get started you first need to login into the lab computer. If you do not know how please ask me to show you. Once you are logged in, then every time make sure you double click the "Map O:drive" icon. Then proceed to open up Microsoft Visual Basic .NET.

Step 1: Create a new project named "CoinCounter". Once the main form is displayed, create the following interface. Make sure to save your new project in your A201 (or A505) folder.

The interface has 3 buttons, 6 labels and 6 textboxes. Make sure the textboxes and buttons have proper names associated with them. You will need to use these names later in your program.



Step 2: Double click the Quit button and write the code that allows your program to properly exit.

Run: Run your code to see if it runs and if the Quit button works properly.

Step3: Double click the Clear button and write the code to clear the text property of all of your textboxes. For example, if you named your quarters textbox "Quarters", then to clear it you will have to type:

```
Quarters.Text = ""
```

Run: Run your code again to see if it runs properly. Type some numbers in the textboxes, then click the Clear button to see if they get erased.

Step4: Double click the Calculate button and type the following code:

```
Dim Total As Integer          ' Declare an integer variable

Total = Quarters.Text * 25 + Dimes.Text * 10 + Nickels.Text * 5 + Pennies.Text * 1

Dollars.Text = Total \ 100     ' Integer division, and implicit type conversion
Cents.Text = Total Mod 100     ' Remainder, and implicit type conversion
```

Run: Run your code again to see if it runs properly. Type some numbers in the textboxes, then click the Calculate Button. Do you get any errors? If you do, document the error in your note book and ask me about it in the lab.

Question? Does it make sense for the user to be able to type in the amount in the "Dollars" and "Cents" textboxes? These textboxes are used to display the result of the calculation. Should these textboxes be editable or should they be ReadOnly?

Discussion: (Improving your code)

Discussion of Option Strict, Option Explicit, type conversion, and error checking.

[Option Strict On](#)

[Option Explicit On](#)

[Total = CInt\(Quarters.Text\) \\* 25 + CInt\(Dimes.Text\) \\* 10 + CInt\(Nickels.Text\) \\* 5 + CInt\(Pennies.Text\) \\* 1](#)

Dollars.Text = CStr(Total \ 100)