

Visual Basic tutorial - currency converter

We will use visual studio to create a currency converter where we can convert a UK currency pound to other currencies.



This is the interface for the application. Lets look at these closely

Radio Button 1	Text: Euro
Radio Button 2	Text: Rupee
Radio Button 3	Text: Dollar
Radio Button 4	Text: JPY
Radio Button 5	Text: AUD
Radio Button 6	Text: CNY
Textbox	To enter the number in decimals
Label 1	To show total . Text: ...
Label 2	Text: Total:
Label 3	Text: £ to others
Button	Text: Convert

First step is lets double click on the button

```
Public Class Form1
|
|
|   Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click
|
|   End Sub
|
End Class
```

This will automatically add this button1_click function to the code.

Right before the that function lets declare the currency variable.

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```

Public Class Form1

    Dim currency As Double

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click

        End Sub

End Class

```

We are declaring a double variable because double can contain decimal numbers in a very large amount. Inside an integer we can only hold 10, 11, 12, 13 or -10, -11, -12, or -13 whole numbers. However to ensure we are achieving the right calculation for currency we need to use decimal numbers such as £3.20 or \$100.99 and so on.

```

Public Class Form1

    Dim currency As Double

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As
System.EventArgs) Handles Button1.Click

        Label1.Text = currency * Convert.ToDouble(TextBox1.Text)

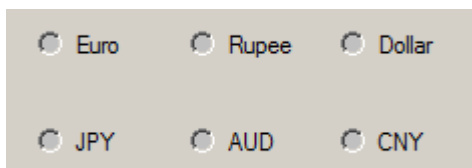
    End Sub

End Class

```

Now let's add this highlighted line inside the button 1 click function. This line is taking the label 1 and inserting our currency converting calculations to it.

We are declaring to change the label 1 text, we will take the value from the currency variable and multiply it by the number user enters inside the text box 1.



Now we need to give the currency variable some value depending on the radio button chosen.

Before we do that let's look at some current currency exchange rates.

Currency Converter

The screenshot shows the Yahoo Currency Converter interface. At the top, there are navigation tabs: Majors, European Crosses, Yen Crosses, Asia Pacific, Emerging Markets, and Skar. The main area is divided into two input fields. The left field is for the 'Our currency' (British Pound (GBP)) with a value of 1. The right field is for the 'Exchange rate' (Euro (EUR)) with a value of 1.2922. Below the input fields, it shows the exchange rate of 1.2922 on 8 March 2016. There is a 'View 5 Day Trend' link and a note: 'Please note: The exchange rates given are 'bank rates'. High street rates may be subject to commission'. At the bottom, there is a 'Pocket Guide' section for 8 March 2016, listing 'British Pound (GBP)'.

This is YAHOO CURRENCY CONVERTER. Google it.

At this moment here are the exchange rates for the currency we are looking for

Our currency	Exchange rate
£1	1.2922 Euro
£1	1.4219 Dollar
£1	160.1115 JPY
£1	1.9088 AUD
£1	95.7575 Rupee
£1	9.2498 CNY

We can go in 2 decimal points for example change euro from 1.2922 to 1.29 and so on.

Double click on the Euro radio button

```
Public Class Form1

    Dim currency As Double

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

        Label1.Text = currency * Convert.ToDouble(TextBox1.Text)

    End Sub

    Private Sub RadioButton1_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton1.CheckedChanged
        currency = 1.29
    End Sub
End Class
```

radio button 1 checked changed function will inserted automatically.

inside that function before the end sub we add the currency = 1.29. Here we are using our global variable and giving it a value.

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Now double click on the rupee radio button

```
Public Class Form1

    Dim currency As Double

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

        Label1.Text = currency * Convert.ToDouble(TextBox1.Text)

    End Sub

    Private Sub RadioButton1_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton1.CheckedChanged
        currency = 1.29
    End Sub

    Private Sub RadioButton3_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton3.CheckedChanged
        currency = 95.75
    End Sub
End Class
```

Radio button 3 checked changed function is now inserted by visual studio and inside that we change the currency value to 95.75, You get the idea now. Lets add the rest.

Here is the final code

```
Public Class Form1

    Dim currency As Double

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

        Label1.Text = currency * Convert.ToDouble(TextBox1.Text)

    End Sub

    Private Sub RadioButton1_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton1.CheckedChanged
        currency = 1.29
    End Sub

    Private Sub RadioButton3_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton3.CheckedChanged
        currency = 95.75
    End Sub

    Private Sub RadioButton4_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton4.CheckedChanged
        currency = 1.42
    End Sub

    Private Sub RadioButton2_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton2.CheckedChanged
        currency = 160.11
    End Sub
End Class
```

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```

End Sub

Private Sub RadioButton5_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton5.CheckedChanged
    currency = 1.9
End Sub

Private Sub RadioButton6_CheckedChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles RadioButton6.CheckedChanged
    currency = 9.24
End Sub
End Class

```

Now lets test the program



As you can see the program is responding the currency change and its giving us the right value for 1 pound. Try out your program.

There is an alternative way to do this by using IF statement and keeping our program rather simple then before.

As you can see we have 6 functions running behind the scene right now. How about we change it to just one function and a few IF statements instead.

Lets try

```

Public Class Form1

    Dim currency As Double

    Private Sub Button1_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles Button1.Click

        If (RadioButton1.Checked = True) Then
            currency = 1.29
        End If
        If (RadioButton2.Checked = True) Then
            currency = 160.11

```

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```
End If
If (RadioButton3.Checked = True) Then
    currency = 95.75
End If
If (RadioButton4.Checked = True) Then
    currency = 1.42
End If
If (RadioButton5.Checked = True) Then
    currency = 1.9
End If
If (RadioButton6.Checked = True) Then
    currency = 9.24
End If

Label1.Text = currency * Convert.ToDouble(TextBox1.Text)

End Sub
End Class
```

It still works as the same.

For the next task

Add some more currencies you want to change and see how that works out.