Nathaniel Derrick Software Development: Assignment 3

What does the program need to do? How should the software perform?

## • Convert British Pound Sterling to a foreign currency.

The program meets this requirement, as it is completely capable of converting British Pound Sterling into four different foreign currencies, including US Dollars and the Euro. The example below shows how the calculation is done in the code.

```
amount = CDec(txtAmount.Text)
rate = CDec(txtRate.Text)
due = amount * rate
lblAmountDue.Text = due
```

## • Convert foreign currency back into British Pound Sterling.

The program almost meets this requirement, as it is capable of converting another currency into Pound Sterling, however you have to know and manually enter the exchange rate yourself.

This is because all of the radio buttons used are using exchange rates based off of Pound Sterling, therefore the Pound Sterling radio button has an exchange rate of '1' and the result will be the same as the amount entered. The example below shows the code for the Pound Sterling radio button.

```
rdopound.Checked = True Then
rate = 1
txtRate.Text = rate
```

## • Should not freeze/ crash.

The program meets this requirement, as it does not crash or freeze at all. The example below is an extract from the User Feedback form (Question 3) showing that the program did not freeze while being used.

### How often did the program crash or freeze (1 - 5)? 1: Non-stop / 5: Rarely/not at all

Answer 1 - 5 Answer 2 - 5

# • Should be easy to understand, and easy to use.

Based on user feedback, the program is easy to use but could be easier. However, the code behind the program is hard to understand, due to a lack of comments explaining the processes used in it.

The example below shows the answer to Question 4 on the User Feedback Questionnaire, the examples of code above show the lack of comments...

On a scale of 1-10, how easy was the program to use/understand? 1: Difficult / 10:Very easy Answer 1 - 9

Answer 2 - 8

# • Display the results.

The program meets this requirement, as provided the data entered is valid, the program shows the correct result every time.

# Currency Converter

Amount:	25	
Exchange Rate:	1.51	© Euros
		US Dollars
Amount Due:	37.75	Canadian Dollars
		Bitcoin
Convert		Pound Sterling

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### Test Table:

Test	Type of Test	Expected Outcome	Actual Outcome	Corrective Measures
Check buttons work.	Functional	Buttons work.	Same	N/A
Attempt to type into amount & rate boxes.	Functional	Can type in boxes.	Same	N/A
ls an output displayed?	Functional	An output is displayed.	Same	N/A
Check that calculations are made correctly.	Logical	Calculations are made correctly.	Same	N/A
Does an error message show when incorrect data is entered?	Logical	An error shows for any incorrect data entered.	Same	N/A
What happens if no data is entered?	Logical	An error shows, counting no data as incorrect data.	Same	N/A

#### Code Screenshots:

```
Public Class CurrencyConverter
Dim amount, rate, due As Decimal
Private Sub CnvrtBtn_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) Handles CnvrtBtn.Click
Try
amount = CDec(txtAmount.Text)
rate = CDec(txtRate.Text)
due = amount * rate
lblAmountDue.Text = due
Catch
MsgBox("Invalid data.")
End Try
End Sub
```