Programming with Python Assignment 2

Part a. Hello Maybe

Write a program that asks the user if they would like a greeting. If the user inputs yes, then print the greeting "Good morning!". Otherwise, print the message "OK, goodbye." Start your program with the comment #FirstName LastName Assignment2A and save the file as LastNameFirstnameAsn2A.py

Your program should look similar to the example shown below.

Would you like a greeting? yes

Good morning!

Or

Would you like a greeting? no

OK, goodbye.

Part b. Currency Conversion (2 Currencies)

Using selection statements, write a program to convert an amount of money from one currency to another. The program should:

a. Ask the user to enter the amount of money;

b. Ask the user the current currency (one of USD, EUR);

c. Calculate the equivalent amount in the other currency, using a recent exchange rate;

d. Print the result to the user.

You can find recent exchange rates by Googling 'x to y' where x is the starting currency and y is the new currency. For example, 'EUR to USD' will return something like '1 Euro equals 1.09 United States Dollar'. For this problem, you can use one exchange rate, f, and infer the inverse direction using 1/f; or you can look up and use 2 exchange rates. For this assignment, you should hard-code the exchange rates as part of the program. In practice, exchange rates would come into the program from a database or real-time feed. Start your program with a comment like #Firstname Lastname Assignment2b and save the file named like LastnameFirstnameAsn2b.py

Your program should look similar to the example shown below.

Welcome to the 2-currency calculator!

Please enter the From amount: 100

Please enter the From currency (USD or EUR): EUR

100.0 EUR equals 109.35 USD

Part c. Currency Conversion (3 Currencies)

Using selection statements, write a program to convert an amount of money from one currency to another. The program should:

a. Ask the user to enter the amount of money;

b. Ask the user the current currency (one of USD, EUR, RMB);

c. Ask to which currency this amount should be converted (USD, EUR, or RMB);

d. Calculate the conversion using recent exchange rates;

e. Print the results to the user.

You can find recent exchange rates by Googling 'x to y' where x is the starting currency and y is the new currency. For example, 'EUR to USD' will return something like '1 Euro equals 1.09 United States Dollar'. Using if and elif statements, determine which conversion is appropriate. Use nested selection statements for the maximum credit. You can use non-nested (parallel) selection statements to receive nearly full credit (-2pts). If the user enters an unknown currency, print an error message. For your program, you can use exchange rates fab in one direction, and infer the inverse direction fba as 1/fab. Alternatively, you can look up and use both fab and fba. Real FX rates are like the latter case. For this assignment, you should hard-code the exchange rates as part of the program. In practice, exchange rates would come into the program from a database or real-time feed. Start your program with the comment #Firstname Lastname Assignment2c and save the file named like LastnameFirstnameAsn2c.py

Your program should look similar to the example shown below.

Welcome to the 3-currency calculator!

Please enter the From amount: 100

Please enter the From currency (USD, EUR, or RMB): EUR

Please enter the To currency (USD, EUR, or RMB): USD

100.0 EUR equals 109.35 USD