

Problem:

Martin is an Argentinian guy that is going to the United States and France on a trip, he is a guy on a budget so he would like make sure he stays in the budge, however one thing he struggles with is always having to call the money exchange agency. Can you find a way to help Martin?

I. Analyze the Problem:

Martin is from Argentina, in Argentina they use Argentine Peso as currency, for his trips he needs: US Dollars and Euros. He needs to keep track of his budget no matter what currency he is going to use we can create for him a currency convertor, to estimate the amount in foreign currency at any time. The exchange rates are constantly changing that's why we are going to have estimates.

Things considering on May 2019: 1 Argentine Peso = 0.020 Euros, 0.022 USD.

This analysis leads us to:

II. Determine Specifications:

Program: Currency Converter

Input: Money in Argentine Peso

Output: Money in USD and Euro

Process:

$$\text{money in Euro} = \text{money in Peso} * 0.020$$
$$\text{money in dollar} = \text{money in Peso} * 0.022$$

III. Create a Design

1. Print an introduction
2. Input the amount in Argentine Peso
3. Calculate the amount in Euro
4. Calculate the amount in US dollar
5. Output amount in dollars and euros.

IV. Implementing Design:

```
#1. print an introduction

print("Welcome to currency converter\nfrom Argentine Peso To
Euro and USD\n")

#2.    Input the amount in Argentine Peso

peso    = eval(input("Enter amount in Argentine Pesos: "))

#3.    Calculate the amount in Euro

euro    = peso*0.020

#4.    Calculate the amount in US dollar

dollar = peso*0.022

#5.    Output amount in dollars and euros.

print("%.2f pesos:\n%.2f euros \n%.2f usd"%(peso, euro,
dollar))
```

```
#currencyConverter()

#    A function that converts from Argentine Peso to USD and Euros

def currencyConverter():

    print("Welcome to currency converter\nfrom Argentine Peso To Euro and
USD\n")

    peso    = eval(input("Enter amount in Argentine Pesos: "))

    euro    = peso*0.020

    dollar = peso*0.022

    print("%.2f pesos:\n%.2f euros \n%.2f usd"%(peso, euro, dollar))
```

V. Testing:

```
Welcome to currency converter  
from Argentine Peso To Euro and USD
```

```
Enter amount in Argentine Pesos: 5  
5.00 pesos:  
0.10 euros  
0.11 usd
```

```
Welcome to currency converter  
from Argentine Peso To Euro and USD
```

```
Enter amount in Argentine Pesos: 100  
100.00 pesos:  
2.00 euros  
2.20 usd
```

VI. Maintain the Program

In a future I'd like to improve this program more, like for example calculate from USD or Euro to Pesos. And make it more interactive. I didn't make more changes to the program but would like to make new versions in the future.