CIS 2266: Python for Data Analytics

Midterm project

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The currency converter program

User guide

1. The program will keep asking for an input if user enters the country that is not part of the list or if he/she mistypes the name of the country
2. After country input, program asks how much money in USD you are willing to send
3. Program will display how much you have to pay including service fees, how much recipient gets in a foreign currency and the new balance on your account.
4. The program will shutdown if user fails enter a correct amount for a second time

In [23]:
```
#create a dictionary to hold countries and their respective value agains US
currencies = {'Australia':'1.44','Canada':'1.30 ','China':'6.72158 ','Denma
              ,'Japan':'135.88','Mexico':'20.07 ','New Zealand':'1.59','Norw
              ,'Switzeland':'0.96','Thailand':'35.45'}
```

In [24]:
```
#create list that contains the foreign currencies
names=['Australian Dollar','Canadian Dollar','Chinese Yuan','Danish Krone',
```

In [25]:
```
#User starts with $2000 balance on the account
totalBalance = 2000
```

In [26]:
```
#Display the list of destination countries user chooses from
for key in currencies:
    print(key)
```

```
Australia
Canada
China
Denmark
Great Britain
Hong Kong
Japan
Mexico
New Zealand
Norway
Singapore
Sweden
Switzeland
Thailand
```

In [27]:
```
#prompt user to enter the country
countryTo= input("\nChoose destination country from the list above and type

#If user enters wrong input, program will keep ask
while countryTo not in currencies:
    countryTo= input("\nChoose destination country from the list above and

# After country input, enter how much in USD you would like to send
amountTosend= input("How much do you want to send? \n")

#If the amount your are sending plus service fees(5% of the amount) is less
maxAmount = int(amountTosend)+ int(amountTosend) * 0.05
if maxAmount > totalBalance:
    print("Insuffient balance!")

    #Program gives user a second chance to enter a correct amount
    amountTosend= input("How much do you want to send? \n")

    #program will shutdow if user fails to enter correct amount for a secon
    exit()
```

```
Choose destination country from the list above and type it as it appears
Sweden
How much do you want to send?
1000
```

In [28]:
```
#Calculate how much the recipient will recieve in their local currency
def receive_amount(amountTosend):
    serviceFee = int(amountTosend)* 0.05
    totalPayment = int(amountTosend) + serviceFee
    return totalPayment
```

In [32]:
```
#Calculate the new balance on sender's acoount
def balance_function():
    withdrawInput= amountTosend
    new_Balance=  totalBalance-maxAmount
    print("And the new balance on your account is: \n","\033[1m"+"${:,.2f}"
```

In [33]:
```
#Get the name of a foreign currency depending on country input
name = ''
def return_currency(name):

    if countryTo == 'Australia'or countryTo =='Canada' or countryTo =='Sing
        name = names[0]
    elif countryTo == 'China':
        name = names[2]
    elif countryTo== 'Great Britain':
        name = names[4]
    elif countryTo == 'Japan':
        name = names[6]
    elif countryTo == 'Mexico':
        name = names[7]
    elif countryTo == 'Norway'or countryTo =='Dennmark':
        name = names[9]
    elif countryTo == 'Sweden':
        name = names[11]
    elif countryTo =='Switzeland':
        name = names[12]
    elif countryTo =='Thailand':
        name = names[13]

    return name
```

In [34]:
```
#Formatted final output
print("Your total payment including service fee is: \n","\033[1m"+"${:,.2f}
recipient_amount = round(float(currencies[countryTo])*float(amountTosend),2
print("Your recipient will recieve:\n","\033[1m"+return_currency(countryTo)

balance_function()
```

```
Your total payment including service fee is:
 $1,050.00
Your recipient will recieve:
 Swedish Krona 10,190.00
And the new balance on your account is:
 $950.00
```

Program ends

In [ ]: