2021

Currency Exchange

This challenge is about how to transfer the currency of one country to another

Menna Mostafa

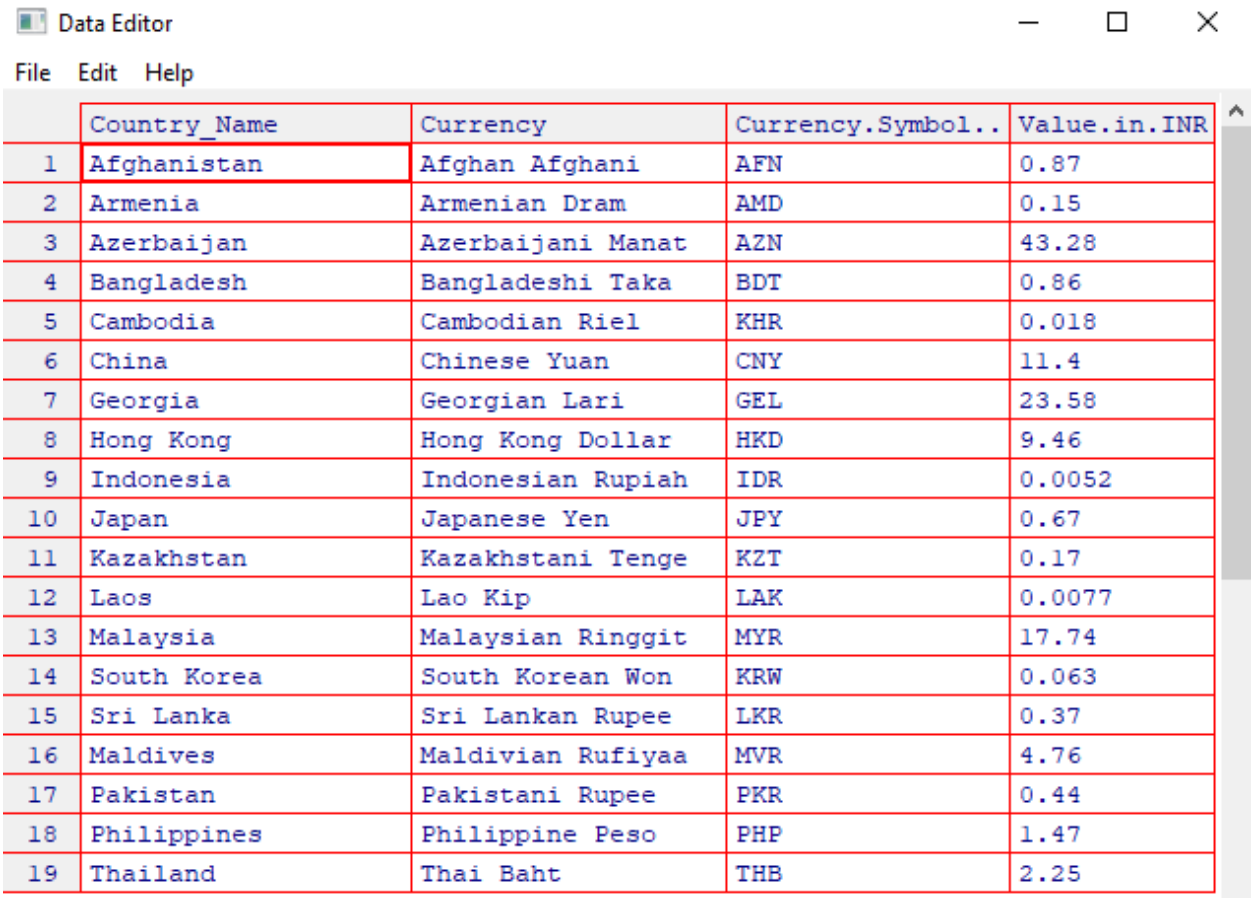
10/4/2021

Task Introduction

This task is about that, the user enters the name of the two countries that he wants to compare their currencies to each other and the value he wants to convert so that the expected output is which of the two countries has a more expensive currency and the conversion value according to the country that has the most expensive currency value.

The solution of the task

1- Preparing a CSV file containing the names of the countries, its currency, the abbreviation of the currency, and the value of the currency according to the Indian rupee (INR) and reading this file in R as we see in the figure:



	Country_Name	Currency	Currency.Symbol..	Value.in.INR
1	Afghanistan	Afghan Afghani	AFN	0.87
2	Armenia	Armenian Dram	AMD	0.15
3	Azerbaijan	Azerbaijani Manat	AZN	43.28
4	Bangladesh	Bangladeshi Taka	BDT	0.86
5	Cambodia	Cambodian Riel	KHR	0.018
6	China	Chinese Yuan	CNY	11.4
7	Georgia	Georgian Lari	GEL	23.58
8	Hong Kong	Hong Kong Dollar	HKD	9.46
9	Indonesia	Indonesian Rupiah	IDR	0.0052
10	Japan	Japanese Yen	JPY	0.67
11	Kazakhstan	Kazakhstani Tenge	KZT	0.17
12	Laos	Lao Kip	LAK	0.0077
13	Malaysia	Malaysian Ringgit	MYR	17.74
14	South Korea	South Korean Won	KRW	0.063
15	Sri Lanka	Sri Lankan Rupee	LKR	0.37
16	Maldives	Maldivian Rufiyaa	MVR	4.76
17	Pakistan	Pakistani Rupee	PKR	0.44
18	Philippines	Philippine Peso	PHP	1.47
19	Thailand	Thai Baht	THB	2.25

2- The user enters the names of the two countries and the value which he want to converted.

3- After that, we search in the data frame about the two countries names which the user enter to save the INR values about these two countries.

4- Then, comparing the INR of the two countries and return the country with higher INR as the country with highest currency value.

5- Finally, we converted the value which the user enter by divided the highest INR about the smallest one then multiply the output by the value which the user entered.

Screenshot about the code

The code in R :

```r

setwd("C:/Users/moon/Desktop/excell/Data_Analysis/data")

currency <- read.table("Currency_dataset_NEW2.csv",header=TRUE,sep=",")

fix(currency)

length<-nrow(currency)


country_one<-readline(prompt = "Enter the name of the first country: ")


country_two<-readline(prompt = "Enter the name of the second country: ")


value<-readline(prompt="Enter value: ")

value <- as.double(value)
```

```r
i<-1

INR_one<-0
INR_two<-0

flag1<-0
flag2<-0

while(i <= length)
{
  if(currency$Country_Name[i]==country_one)
  {
    INR_one<-currency$value.in.INR[i]
    flag1<-1
    if(flag2==1)
    {
      break}
  }
  else if(currency$Country_Name[i]==country_two)
  {
    INR_two<-currency$value.in.INR[i]
    flag2<-1
    if(flag1==1)
    {
      break}
  }

  i<-i+1
}
```

```
51
52  if(INR_one > INR_two)
53  {
54
55    print("Country_one has the heigher value")
56    print("The country one is : ")
57    print(country_one)
58    print("The converted value is : ")
59    currency_exchange <-INR_one/INR_two
60    print(currency_exchange*value)
61  }
62
63  if(INR_one < INR_two)
64  {
65    print("Country_two has the heigher value")
66    print("The country two is : ")
67    print(country_two)
68    print("The converted value is : ")
69    currency_exchange <-INR_two/INR_one
70    print(currency_exchange*value)
71  }
72
73
```

The output is :

```
Enter the name of the first country: Saudi Arabia

> country_two<-readline(prompt = "Enter the name of the second country: ")
Enter the name of the second country: Oman

> value<-readline(prompt="Enter value: ")
Enter value: 20
```

```
+   print("The co ..." ... [TRUNCATED]
[1] "Country_two has the heigher value"
[1] "The country two is : "
[1] "Oman"
[1] "The converted value is : "
[1] 194.8012
>
```

Notes about the code

- This is a simple solution for solving this challenge.

- In the solution I used Indian rupee (INR) as a temp country for currency exchange, but the most logical thing is that we use the dollar as a temp because it is a number one currency in the world.