

Sprint 6: Implementing Modular Programming Using Functions

Mastery Challenge - 1 – Forex

Smart Travel is a recognised name in the travel industry. Most of us like to travel but the thought of extensive planning and prior preparations, can be overwhelming for some. Smart Travel can help you plan your travels effortlessly. It makes procurement of foreign exchange or forex hassle free from anywhere in the world. The company's forex service lets you buy Forex at the best available exchange rates for any currency.

Write a Java program to help Smart Travel calculate the amount to be given to a traveler as per the current exchange rate. The company wishes the program to perform the below mentioned tasks.

Task 1

Part 1

Declare variables to hold the conversion values. Use the following conversion rates for the program:

- 1 Japanese Yen (JPY) = 0.67 Indian Rupee
- 1 US Dollar (USD) = 74.43 Indian Rupee
- 1 British Pound Sterling (GBP) = 94.5 Indian Rupee
- 1 Euro (EUR) = 85.3 Indian Rupee
- 1 Arab Emirates Dirham (AED) = 20.25 Indian Rupee

Part 2

Display the equivalent amount in Indian Rupees for different denominations in different currencies as shown below.

The exchanges rates for each currency (1,10,20,50,100) in INR

| | 1 | 10 | 20 | 50 | 100 |
|-----|-------|-------|--------|--------|--------|
| JPY | 0.67 | 6.7 | 13.4 | 33.5 | 67.0 |
| EUR | 85.37 | 853.7 | 1707.4 | 4268.5 | 8537.0 |
| GBP | 94.5 | 945.0 | 1890.0 | 4725.0 | 9450.0 |
| USD | 74.3 | 743.0 | 1486.0 | 3715.0 | 7430.0 |
| AED | 20.25 | 202.5 | 405.0 | 1012.5 | 2025.0 |

Task 2

The user wishes to continue with currency conversion after looking at the conversion rates.

Accept the user's acceptance with a yes or no and display the list of available currencies for which the conversion can be done.

Do you wish to check conversion rates today : (y/n)

y

Exchange Rate of currency can be done for

1. JPY
2. EUR
3. GBP
4. USD
5. AED

Task 3

Help Smart Travel in calculating the amount to be given to the traveler depending on the source currency and the target currency.

Note: The choice of source and target currency must be made by traveler as below

| User choice | Representation of Currency |
|-------------|----------------------------|
| 1 | JPY |
| 2 | EUR |
| 3 | GBP |
| 4 | USD |
| 5 | AED |

```
Enter the source currency(Currency I have) :  
1  
Enter the target currency(Currency I want) :  
3  
Enter the amount to be converted :  
2000  
The converted exchange rate is : 14.17989417989418
```

Mastery Challenge - 1 – Boilerplate URL

https://myrepos.stackroute.niit.com/core_java_boilerplates/mc1_forex.git