

**CSCE100 Introduction to Informatics
Fall 2019**

Programming Assignment 1: Currency Converter

Points: 100 points. Assignment Date: September 5, 2019 Due Date: September 12, 2019

Objectives

1. To familiarize with writing and running Python programs and the Python environment
2. To familiarize with the use of conditionals and branching
3. To familiarize with data structures
4. To familiarize with standard input/output in Python
5. To be exposed to the use of built-in functions

Problem

Write a program that will prompt the user for a choice between 1 and 5, with each choice being a different currency option to convert from USD. When the user enters a choice, the program converts the currency from USD into the chosen currency option to the screen. After that, the program exits. Here are some additional requirements:

- The program is required to display an explanation of the choices in the beginning before prompting the user for a choice. (5 points)
- The program is required to display the user's choice – this is known as “echoing user input”. (5 points)
- The program is required to display a message (such as “Thank you for using this program.”) before exiting. (5 points)
- If the user enters a choice that is invalid, the program is required to display an error message (such as “Sorry, your input is invalid.”). (5 points)
- You must document your program (see <https://devguide.python.org/documenting/>).
 - Name, Date, Affiliation, a description of the program, what inputs does it need, what outputs does it generate (5 points)
 - Inline comments in the program (5 points)
- You are required to choose five currency options and the correct conversions from USD. (Hint: Try using Google to find out the currency conversion rates.). (5 points)

Example Input / Output

```
Welcome to the Currency Converter program!  
The currency choices are:  
1. Indian Rupee  
2. Euro  
3. Yen  
4. Ringgit
```

5. Ruble

Please enter your choice of currency:

1

You have chosen currency #1: Indian Rupee.

Here is 100 USD in Indian Rupee: 7168

Thank you for using the Currency Converter program. Bye!

Handin

1. The submission deadline for all handins is September 12, 2019, 11:00 AM. **Late handins will not be accepted or graded.**
2. You are required to handin a screen capture of your “testing session” using your program. (10 points)
3. You are required to handin all program files. (10 points)
4. You are required to handin online the above using <http://cse.unl.edu/handin/>

Think About

Now, think about what if we want to present a series of conversion rates for the selected currency, for the past 10 days. How would we then present the results to the screen for the user? Also, how would they store the data? How would we keep the data updated? For example, if somebody runs the program on July 1st, the results will be different from when the program is run on August 1st. Can we predict the possible currency rates in advance? Can we make use of any financial API's? (What is an API?)