CS 115 - Introduction to Programming in Python

Lab 01

Lab Objectives: Input/output, data, expressions, selection statements.

Q1: Write a program `Lab01_Q1.py` to input the meal purchased at a restaurant. The program should calculate the total amount of the meal with a 15% percent tip and 8% sales tax. The program should print the following:

- Meal
- Tip Amount
- Sales Tax
- Total

Sample Run:

```
Enter meal amount(in dollars): 50
Meal: $ 50.0
Tip Amount: $ 7.5
Sales Tax: $ 4.0
Total: $ 61.5
```

Q2: Write a program `Lab01_Q2.py` to input a playing card in the following shorthand notation:

A	Ace	D	Diamond
2…10	Card values	H	Hearts
J	Jack	S	Spades
Q	Queen	C	Clubs
K	King		

The program should print the full description of the card. Assume that the user input is valid.

Sample Run:
`Enter the card notation: JS`
`Jack of Spades`
	Sample Run:
	`Enter the card notation: 10H`
	`10 of Hearts`

Sample Run:
`Enter the card notation: 2D`
`2 of Diamonds`
	Sample Run:
	`Enter the card notation: AC`
	`Ace of Clubs`

Q3: Write a program to input the number of seconds. The program will display the number of days, number of hours, number of minutes, and seconds, if any, in the input number of seconds. If the input is not a positive integer, display an appropriate message. Note that there are 60 seconds in a minute, 60 minutes in an hour and 24 hours in a day. The user input is shown in red.

Sample Run:
`Enter number of seconds: -10`
`The number of seconds must be positive.`
	Sample Run:
	`Enter number of seconds: 10`
	`10 secs`

Sample Run:
`Enter number of seconds: 100`
`1 mins 40 secs`
	Sample Run:
	`Enter number of seconds: 10000`
	`2 hours 46 mins 40 secs`

Sample Run:
`Enter number of seconds: 100000`
`1 days 3 hours 46 mins 40 secs`
	Sample Run:
	`Enter number of seconds: 500040`
	`5 days 18 hours 54 mins 0 secs`