CS 115 - Introduction to Programming in Python

Lab 01

Lab Objectives: Input/output, arithmetic expressions

1. Write a Python script, `Lab01_Q1.py` that inputs 3 decimal numbers, a, b and c from the user. Calculate the result of the following equation and display the result. The output should be formatted the same as the sample run below.

$$r = \frac{ab + bc + ca}{a + b + c}$$

Sample Run:

```
Enter a: 2.6

Enter b: 4.5

Enter c: 1.8

The result of the calculation is 2.75
```

2. Write a Python script, `Lab01_Q2.py` to request the name of a basketball team, the number of games won, and the number of games lost as input, and then display the name of the team and the percentage of games won. Use format statement in the output.

Sample Run:

```
Enter name of team: Yankees

Enter number of games won: 84

Enter number of games lost: 78
Yankees won 51.9% of their games
```

3. Write a Python script, `Lab01_Q3.py` that takes name, surname and title of a person and displays the inputs in a different format:

Sample Runs:

```
Enter name: Ihsan

Enter surname: Dogramaci

Enter title: Professor
Person is: Prof. Dogramaci, I.
```

```
Enter name: Hilmi

Enter surname: Oncul

Enter title: Instructor
Person is: Inst. Oncul, H.
```

4. Write a program, `Lab01_Q4.py` that prompts the user to read in two input values: a number of feet, followed on a separate line by a number of inches. The program should convert this amount to centimeters. Assume that all input values are ints. 1 foot is 12 inches and 1 inch is 2.54 centimeter. Here is a sample run of the program.

Sample Run:

```
This program converts feet and inches to centimeters.

Enter number of feet: 4

Enter number of inches: 8

4 ft 8 in = 142.24 cm
```