***BE 1600***

***Introduction to***

***Programming and Computation***

***Python Lab***

**Lab 04- chapter 3**

20 points

**Due by the end of the lab session**

Assignment Objectives:

* To write Boolean expressions using relational operators .
* To implement selection control using multi-way if-else statements .
* To program with selection statements .
* To understand the rules governing operator precedence and associativity.
* Use F-String format output.

*Solution for this lab will not be posted on Canvas; however, the solution of any of the lab problems can be discussed in the class upon request of a student.*

All labs must be submitted by the Canvas. **No email or hard copy** is accepted. You must follow the following format:

1. Submit your file to the Canvas. You must submit your file on time; otherwise, you will receive zero.
2. You can upload your file as many times as you like. Only the last attempt counts because the last file you uploaded is the only file your instructor will see.
3. There will be several modules on the Canvas. You need to upload your file using the correct module on the Canvas.
4. Name the lab file: *Lab (labt number)*
5. To upload your file(s):

* In Course Navigation, click the ASSIGNMENTS module.
* Click the title of the assignment.
* Click the **Submit** Assignment button.
* Add **File**. ...
* **Submit** Assignment. ...
* View **Submission**.

*It is your responsibility to make sure that the file is uploaded correctly. If you uploaded a wrong file, you receive zero; files will not be accepted after due date even if you have a prove that the file is created before the due date.*

***Make sure you review the Cheating & Plagiarism policy on Canvas.***

*Solve the following two problems. Convert each program to text file. Submit two text files by the end of the lab.*

***Problem 01:***

The Fast Freight Shipping Company charges the following rates:

**Weight of Package Rate per Pound**

2 pounds or less $1.10

Over 2 pounds but not more than 6 pounds $2.20

Over 6 pounds but not more than 10 pounds $3.70

Over 10 pounds $3.80

Write a program that asks the user to enter the weight of a package and then displays the shipping charges.

Here are sample runs:

Enter the weight of the package: 1.5

Shipping charge: $1.10

Enter the weight of the package: 5

Shipping charge: $2.20

Enter the weight of the package: 7.25

Shipping charge: $3.70

Enter the weight of the package: 16

Shipping charge: $3.80

***Problem 02:***

Write a program that prompts the user to enter the currency exchange rate between U.S. dollars and Canadian dollars. Prompt the user to enter **0** to convert from U.S. dollars to Canadian dollars and **1** for vice versa. Prompt the user to enter the amount in U.S. dollars or Canadian dollars to convert it to Canadian dollars or U.S. dollars, respectively. Round amount of money to 2 decimal places using F-String. If the user entered values other than 0 or 1 for conversion type, print an appropriate error message.

Here are sample runs:

Enter the exchange rate from U.S. dollars to Canadian dollars: 1.32

Enter 0 to convert U.S. dollars to Canadian dollars and 1 vice versa: 0

Enter the U.S. dollar amount: 10.75

10.75 U.S dollars is 14.19 Canadian dollars

Enter the exchange rate from U.S. dollars to Canadian dollars: 1.32

Enter 0 to convert U.S. dollars to Canadian dollars and 1 vice versa: 1

Enter the Canadian dollars amount: 14.19

14.19 Canadian dollars is 10.75 U.S. dollars

Enter the exchange rate from U.S. dollars to Canadian dollars: 2.50

Enter 0 to convert U.S. dollars to Canadian dollars and 1 vice versa: 2

Invalid Conversion Type