Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Student ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**PART A**

1. If you have not already done so, install **Python 3.8** (or later) on your laptop:
   1. Download and install from <https://www.python.org/downloads/>
2. If you have not already done so, install **PyCharm 2019.3** (or later) on your laptop:
   1. Apply for a free student license at <https://www.jetbrains.com/student>
   2. If you sign-up with your my.bcit.ca e-mail, you get access to the Professional Edition
   3. Download and install the PyCharm IDE
3. Create a new Python project in PyCharm:
   1. Create a new “Pure Python” project called Lab1 using a “Virtualenv” and Python 3.8 as the base interpreter.
   2. Create a new python file in your project called lab1a.py.
   3. Write the code to produce the following output, plus put your name and your partner’s name into comments at the top of the file. Follow all PEP guidelines.

Hello World!

This is my first python program!

* 1. Run the lab1a.py program by right clicking on the file name and selecting Run. It should output Hello World in the console area of PyCharm.
  2. Take a screenshot of the output of running lab1a.py in PyCharm.

1. Upload your screenshot and lab1a.py file to the Learning Hub

(Activities -> Assignments -> Lab1A).

1. Work with a partner! Both of you must upload the same py file and your own screenshots. Put both partners’ names in a comment inside the file.

Part B

1. Use your project you created in Part A
2. Create a new Python file called lab1b.py
3. Write the code as per the following specifications
   1. Print the statement “Enter your first name:”

Get the user’s name from the console and save it to a variable called first\_name

Print the statement “Hello, <Name>” where <Name> is the first name entered by the user

* 1. Create a variable called x and assign it the integer value 5.

Create a variable called y and assign it the integer value 10.

Create a variable called xy\_sum and assign it to the sum of x and y.

Print the xy\_sum as follows: “5 + 10 = 15” using the variables you created above

* 1. Create a variable called a and assign it the floating point value 10.5.

Create a variable called b and assign it the floating value 4.0.

Create a variable called c and assign it to the a multiplied by the b.

Print the c as follows: “10.5 \* 4.0 = 42.0” using the variables you created above

* 1. Print the difference between c and xy\_sum (i.e., c – xy\_sum).

Convert the c to an integer when subtracting.

Note: You can do this directly in the parentheses of the print() statement.

Answer the following question in a comment:

How is the output different if you don’t convert c to an int?

* 1. Print the string “This program is done.”
  2. Include at least 4 comments in your code and use whitespace to separate groupings of code

1. Take a screenshot of your output

Upload your screenshot and Lab1b.py file to the Learning Hub

(Activities -> Assignments -> Lab1B). Put both partners’ names in a comment inside the file.