



Columbia College
Vancouver, Canada

Introduction to Computer Science and Programming 1
CSCI120

Chapter2: Variables, Data types, String, Input/Output

Chapter2-Lab

Note: This document has been designed and developed as part of an initiative for creating an OER (Open Education Resource) package for the course CSCI 120 at Columbia College.

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Terms of use: Please feel free to customize this document as needed

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Chapter2-Lab

| # of Students in the Group: | | |
|-----------------------------|------------------------------|-------------------|
| | | |
| Student 1 | <i>First name, last name</i> | <i>Student-ID</i> |
| Student 2 | <i>First name, last name</i> | <i>Student-ID</i> |
| Student 3 | <i>First name, last name</i> | <i>Student-ID</i> |
| Student 4 | <i>First name, last name</i> | <i>Student-ID</i> |

Requirements

- For each of the problem below write a Python program.
- When defining variable names, use proper and meaningful names for the variables.
- Follow Python's convention for naming your variables (camel case)
- Remember Python is sensitive about indentation. Use proper indentation.
- Add comments to your code.
- Write all the python programs in one single file. Separate your answers for each question as following: Example:

```
##Problem 1
print("Problem1-----")
Python code for problem 1
```

```
##Problem 2
print("Problem2-----")
Python code for problem 2
```



Problem1

- Write a Python program which asks the user to enter two numbers called X and Y and calculates the following:
 1. $F(X,Y) = X*Y + Y^2 + \text{abs}(X-Y)$ where ^ is the power operation
 2. Find A such that the following equation holds: $X^2 + Y^3 - A = 5$

Problem2

- Write a Python program which asks the user to enter four numbers called X1, X2, X3 and X4 and calculates the following:
 - o $\text{Maximum}(X1, X2, X3, X4) - \text{Minimum}(X1, X2, X3, X4) + X1^X2 + \text{abs}(X3 - X4)$

Problem3

- Write a Python program which asks the user to enter a positive number called N, and print the letter "A" for N times.

Problem4

- Write a Python program that prompts (ask) the user to enter his/her first-name and last-name. The Python program, the concatenate the first-name to last-name and print the following message:
 - o Hi [first-name last-name], I hope you are doing well!

Problem5

- Write a Python program which asks the user to enter three number and finds the absolute distance between the biggest and smallest entered numbers.

Good Luck ☺