# 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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### Chapter2-Lab

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| --- | --- | --- |
| **# of Students in the Group:** |  | |
|  |  |  |
| **Student 1** | *First name, last name* | *Student-ID* |
| **Student 2** | *First name, last name* | *Student-ID* |
| **Student 3** | *First name, last name* | *Student-ID* |
| **Student 4** | *First name, last name* | *Student-ID* |

# 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 + 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:
  + Maximum (X1, X2, X3, X4) – Minimum (X1, X2, X3, X4) + X1^X2 + 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:
  + 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 ☺**