# CMPT 120
# HW4 – Individual Assignment
# Strings, Loops and functions
# Marks: 50

**Notes**

- Your code needs to follow the general [coding guidelines](#).

- When you are done, put ex1.py, ex2.py, ex3.py and ex4.py into a .zip file named HW4.zip, and submit it on Canvas.

- If you are unsure how to zip/unzip files, there is help online, e.g.:

  [how to zip and unzip files on Windows](#)

  [how to zip and unzip files on a Mac](#)

- **If you run into problems, please talk to a TA, or post a question to Piazza.**

## Ex1. [5 marks]
Write a program that gets a string containing city, province, and country names. Now, displays the city, province, and country initials. For example, if the user enters Richmond, BC, Canada, the program should display R.B.C.

```
Hello user!

Please input your city, province, and country: Richmond, BC, Canada
R.B.C

Goodbye user!
```

## Ex 2. [10 marks]
Write a program that reads a string from the user containing a date in the form mm-dd-yyyy. It should print the date in the format June 12, 2023

```
Hello user!
Please enter mm-dd-yyyy: 01-30-2023
January 30, 2023
```

**Ex 3. [15 marks]**

At one college, the tuition for a full-time student is $8,000 per semester. It has been announced that the tuition will increase by 3 percent each year for the next 5 years. Write a program with a loop that displays the projected semester tuition amount for the next 5 years.

```
Year      Projected Tuition (per Semester)
----------------------------------------
1           $ 8240.00
2           $ 8487.20
3           $ 8741.82
4           $ 9004.07
5           $ 9274.19
```

**Ex 4.  [20 marks]**

Write a program to show users a set of choices, and then respond to those choices until they choose to quit ('q').

For each option, write a function.  Each function should do as follows:

**halfstring()** –  Ask the user to enter the string of even length. Your function should display the last half string.   For example, HelloWorld should display World.

**first_three_char()** –  As the k user to enter the string. Your function should display the string made up of the first three characters. For example, HelloWorld will display Hel.

- If the string is shorter than length 3, display whatever there is, so "He" yields "He", and the string is empty, then display "Empty String."

When a user enters 'q', it should display "See you later".

See the sample output.

```
Welcome! What would you like to do?

[1] Enter 1 to print Half string.
[2] Enter 2 to print First three characters.
[q] Enter 'q' to print quit.
Enter your options: 1
Please input string of even length: HelloWorld
World

[1] Enter 1 to print Half string.
[2] Enter 2 to print First three characters.
[q] Enter 'q' to print quit.
Enter your options: 1
Please input string of even length: hello
Please enter an even string.

[1] Enter 1 to print Half string.
[2] Enter 2 to print First three characters.
[q] Enter 'q' to print quit.
Enter your options: 2
Please enter a string: test
tes

[1] Enter 1 to print Half string.
[2] Enter 2 to print First three characters.
[q] Enter 'q' to print quit.
Enter your options: 2
Please enter a string: tes
tes

[1] Enter 1 to print Half string.
[2] Enter 2 to print First three characters.
[q] Enter 'q' to print quit.
Enter your options: 2
Please enter a string:
Empty string.

[1] Enter 1 to print Half string.
[2] Enter 2 to print First three characters.
[q] Enter 'q' to print quit.
Enter your options: q
See you later.
```