Vanier College
Faculty of Science and Technology
Computer Science Department

Programming 1 - Lab #3

Course Number:	420-101-VA	**Teacher:**	Tássia Camões Araújo
Semester:	Winter 2020	**Section:**	00001 & 00002

Instructions

Use this document to guide your study on chapters 5. Create a remote repository named Prog1Lab3 to host your code. If you kept the same git service as you hosted Prog1Lab2, no need to Mio the teacher with the repository link, but if you changed, make sure to inform the new link. Commit after the completion of each task, and push your changes to the repository at the end of each working session.

Expectations

You won't be graded on the correctness of your solutions, but the submission to the remote repository will be counted as your participation in labs (10% of the final grade). You are expected to practice a good portion of those exercises in your study time. All of the beyond the *beyond the textbook* questions, plus at least 5 questions of your choice from the textbook.

Beyond the textbook

1. Write a program that calculates the area of a circle, based on a radius given by the user. If the input is negative, or zero, the program should not calculate the area, but warn the user of the mistake.
2. Write a program that calculates the Body Mass Index (BMI) of a person. The user should input the weight in pounds and height in feet, and the program should output the weight converted to kilograms, height converted to meters, the calculated BMI ($BMI = Kg/(m^2)$), and its classification as *underweight, normal, overweight or obese*.
3. Write a program that prompts the user for the current temperature in Celsius and outputs different messages if it is above or below zero. You should use the conditional operator (?:) in this question.
4. Write a program that provides a menu with 5 options of conversion operations (eg. meters to feet, CAD to USD, Celsius to Fahrenheit, ...). Based on the user selection, the program should proceed with proper instructions, input and output operations.
5. Write a program that prompts the user for his/her date of birth in the format YYYY-MM-DD and outputs the user age, plus a message in the lines: "Your birthday is in XX days", or "Your birthday was XX days ago" (substitute XX by the calculated amount of days), depending if the date in the current year has passed or not.

Textbook questions

Chapter 5 42-52.