MSIS 2607 - Winter 2020 - Lab 1

Logistics:

Assigned: Thursday, January 9, 2020
Due: January 16, 2020

Objective:

Write a program that performs various functions in Python, based on the user input.

The requirements are:

- Print out a menu of options, then query the user to select one.
- Based on the user's choice, calculate the following:
    - Calculate the first n Fibonacci numbers (where the user enters a number, n)
    - Print the numbers 1 to n, and print "Fizz" for mulitiples of 3, and "Buzz" for multiples of 5, and "FizzBuzz" for multiples of both (where the user enters a number, n)
    - Calculate the primes numbers up to n (where the user enters a number, n)
    - Create a list of random numbers, each random number being between -50 and 50, where the list is n long (where the user enters a number, n)

You must use:

- print()
- input()
- If, elif, else
- A loop (for or while)
- comments
- Input validation check for all user inputs

Collaboration:

You will work in groups on the assignment. You are allowed and encouraged to use Google extensively. Each group will turn in 1 assignment (choose who turns it in) with all team members' names on it.

Submission:

- Your names and SCU emails must be at the top of the project as a comment
- Make sure it runs completely and correctly on your computer
- Submit it via Camino
- (We will run your program on our computer to test your answers)

Additional Requirements:

- Make your program loop infinitely, until the user selects an option to quit
- Use functions for each of the calculations

BONUS CHALLENGE:
Instead of an if/else tree for the menu selection, use a dictionary where the keys are the user options, and the values are references to the functions for each