
CECS 174 – LAB ASSIGNMENT 4

OBJECTIVES:

- Able to use a Python 3.x IDE to build Python program(s)
- Implement a solution that requires **selection logic, and repetition logic**.
- Write Python code following an algorithm.

INSTRUCTIONS:

PART 1

Calculate BMI index multiple times and determine the weight status:

Design an algorithm that accept input for BMI calculation of multiple persons. Each time, the app will **ask the user** to enter a height in inches and a weight in lb. Next, it will **calculate** the BMI index. Then it will **display the weight status of the person** based on the following table

BMI	Weight Status
Below 18.5	Underweight
18.5 – 24.9	Normal or Healthy Weight
25.0 – 29.9	Overweight
30.0 and Above	Obese

https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html

So, for each execution of the application, at least 1 person's weight will be calculated.

Welcome to BMI calculator
Please enter the height in inches: 69
Please enter the weight in lbs: 135
BMI Index is: 19.93
The weight status is NORMAL

Would you like to process 1 more case (Y/N or y/n)? y
Please enter the height in inches: 60
Please enter the weight in lbs.: 135
BMI Index is: 26.36
The weight status is OVERWEIGHT

Would you like to process 1 more case (Y/N or y/n)? n
Thank you for using BMI Calculator – Have a good day!

Turn in **pseudocode, python code and screen captures** of several execution runs of the app. You will need to create at least 5 test cases to cover all weight status. Use Google spreadsheet or MS spreadsheet to build your test cases.

PART 2

Write a better dice game with money betting and checks on bet. Also, user can play multiple times until he quits or runs out of money

Write a game of dice and determine win, lose or tie for each game. In this game, the user has 2 dices and the computer has 2 dices.

The rule for the games is as follows:

1. A pair of “same face” will be a pair of different faces. For example, a pair of 1&1 will beat a pair of 6&5.
2. If both user and computer have pair of same face, higher total points will beat lower total points. For example, a pair of 6&6 will beat a pair of 5&5. If computer has 4&4 and user has 4&4, then this is a tie.
3. If neither player or computer has pairs, total points will be used to determine winning. For example, 5&3 is 8 and it beats 4&2. Please check for tie as well.

FOR YOUR INFORMATION

Make sure you **comment your code**. Also design an algorithm with pseudocode before you write your Python code.

TURN IN

- Turn in **your code and images of your test runs**, (i.e. several runs).
- Your document with have 2 parts because this assignment has 2 parts.
- Your turn in document must be in **PDF format**. Upload to the BeachBoard account of this class.