**CS 299 (Yang) Project #1 (25 points + 5 bonus points)**

**Problem: BMI (Body Mass Index) Calculation**

Write a Python program to do:

1. Ask user if he/she wants to your metric system or English system.
2. Ask user to enter weight and height in corresponding units.
3. Calculate the user’s BMI, and round the result to 2 digits after the decimal points (e.g. 21.83).
4. BMI<=24 is considered healthy. Issue a warning message if a user’s BMI >=24.

**BMI = (weight in kilograms) / (height in meters)2**

**or BMI = ( Weight in Pounds / ( Height in inches)2 x 703**

**Tasking requirements:**

Test 1: choose English system, weight 150 pounds, height 70 inches.

Test 2: choose English system, weight 180 pounds, height 65 inches.

Test 3: choose Metric system, weight 120 kg, height 1.70m.

Test 4: choose Metric system, weight 180 kg, height 1.62m.

Test 5: choose English system, weight 0 pounds, height 1 inch.

Test 6: choose English system, weight 1 pounds, height 0 inch.

Test 7: choose Metric system, weight 0 kg, height 0m.

Test 8: make a wrong choice (either not English nor Metric).

**Submission:** submityour source program (use file name as lastNameBMI.py, for example yangBMI.py) plus all test runs (output as comments at the end of program) on blackboard under Project #1 link.

**Program development guidelines:**

1. Code BMI calculation in English system (Lab 2)
2. Code BMI calculation in Metric system
3. Write code for entering choices
4. Based on choice value, put the two BMI calculations under if else condition
5. Code output message by checking the BMI value
6. Thoroughly test the program.

**Bonus (5 points)**

Give BMI value a more detailed classification as follows, i.e. instead of normal BMI and abnormal BMI, you will provide overweight, obese and extreme obesity different level of warning.

BMI scale table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| BMI | <=24 | 25-29 | 30-39 | >40 |
| Status | normal | overweight | obese | Extreme obesity |

Submission: same as without bonus part. Bonus points will be given if the detailed classification is in the program.