



Hello,
World!

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EMT1111: Logic and Problem Solving | Spring 2016 | Dr. Mendoza

LESSON 8 (Homework): While Loops

The `while` Statement: Example 2

```
day = input("What days do you have EMT 1111? ")
while day != "Friday":
    print("Nope. That is not it.")
    print("Try again!")
    day = input("What days do you have EMT1111? ")
print("Yeap!")
print("Goodbye")
```

The `while` Statement: Example 2

```
answer = "no"
while answer != "yes":
    print("hi!!!")
    answer = input("Do you want to stop? ")
```

Homework Assignment: *BMI (bmi.py)*

Write a Python program to calculate the **Body Mass Index** of the user.

- **Body Mass Index (BMI)** is a measure of body fat that is useful in screening for health issues. Generally speaking:
 - A BMI of 18.5 or less is considered *underweight*.
 - A BMI between 18.5 to 24.9 is considered *healthy*.
 - A BMI between 25-29.9 is considered *overweight*.
 - A BMI of 30 or over is considered *obese*.

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Homework Assignment: *BMI (bmi.py)*

Define the function `getBMI(weight, height)` which should calculate the BMI based on the values passed as parameters. Using the following formula:

$$\text{BMI} = (\text{Weight in Pounds} / (\text{Height in inches} \times \text{Height in inches})) \times 703$$

To calculate a BMI, you need the height in inches and the weight in pounds. You square the height, then divide the weight in pounds by the squared-height.

- BMI is defined in terms of meters and kilograms, so to convert from pounds and inches to meters and kilograms, simply multiply by 703.

The function should also print the BMI of the user as well as a message indicating whether the user is underweight, healthy, overweight, or obese.

Your program should to ask the user to input his/her weight and height, then call the `getBMI` function with the corresponding values as parameter. And using a while loop, it should ask the user if he/she wants to try again, keep the process until the user answers **no**.

Homework Assignment: BMI

Sample program run

```
What is your height in inches? 65
What is your weight in pounds? 135
Your BMI is: 22.4627218935
You are considered healthy!

Do you want to try again? yes
```

```
What is your height in inches? 60
What is your weight in pounds? 142
Your BMI is: 27.7294444444
You are considered overweight!

Do you want to try again? no
```



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Homework Assignment: BMI Starter Code

```
height = 65
weight = 135
heightSquared = height **2
BMIinchespounds = weight / heightSquared
BMI = BMIinchespounds * 703
print("BMI:")
print(BMI)
```



```
BMI :
22.4627218935
```