# DOCUMENTATION ON BMI CALCULATOR

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# INTRODUCTION

## Purpose:

In contemporary society, where health awareness is paramount, tools facilitating personal health management are invaluable. One such tool is the Body Mass Index (BMI) calculator, a fundamental metric used globally to assess an individual's weight relative to their height. This Python script provides a robust implementation of a BMI calculator, empowering users to effortlessly compute their BMI and gain insights into their weight status.

## Importance of BMI Calculation:

BMI serves as a critical indicator of an individual's overall health and potential risk factors associated with weight-related conditions. By quantifying the relationship between weight and height, BMI offers a quick and reliable means of assessing whether an individual falls within healthy weight ranges or if they are underweight, overweight, or obese. This information is invaluable for individuals striving to maintain optimal health and mitigate the risk of obesity-related diseases such as diabetes, heart disease, and hypertension.

# PROJECT OVERVIEW

## Usage:

1.Run the Script

2. Enter the height in centimeters (cm) when prompted.

3. Enter the weight in kilograms (kg) when prompted.

4. The script will calculate the BMI using formula: BMI= weight/(height/100) ^2

5. The calculated BMI will be displayed along with the corresponding weight.

## Algorithm:

1. Initialize a variable ret to False to control loop continuation.
2. Display the title of the BMI calculator. Prompt the user to input their height in centimeters.
3. Prompt the user to input their weight in kilograms.
4. Calculate the BMI using the provided formula.
5. Determine the weight status category based on the calculated BMI.
6. Ask the user if they want to try again ('Yes' or 'No').
7. Based on the user's input, either continue the loop or exit the program.

## Languages Used:

Python

# SOURCE CODE

```
while True:
    ret=False
    print("\n\n================= BMI Calculator  =================\n\n")
    height = float(input("Enter your height in cm: "))
    weight = float(input("Enter your weight in kg: "))
    BMI = weight / (height/100)**2
    print(f"You BMI is {BMI}")
    if BMI <= 18.4:
        print("You are underweight.")
    elif BMI <= 24.9:
        print("You are healthy.")
    elif BMI <= 29.9:
        print("You are overweight.")
    elif BMI <= 34.9:
        print("You are severely overweight.")
    elif BMI <= 39.9:
        print("You are obese.")
    else:
        print("You are severely obese.")
    user_input=input("\n\nTry again? (Yes/No): ")
    print("\n\n")
    if user_input.lower()=='no':
        print("Exit program.")
```

```
        break
    elif user_input.lower()=='yes':
        ret=True
    else:
        print("Wrong input.")
        ret=True
    if ret:
        continue
```

# OUTPUT

```
================ BMI Calculator  ================


Enter your height in cm: 140
Enter your weight in kg: 47
You BMI is 23.9795918367347
You are healthy.


Try again? (Yes/No): Yes




================ BMI Calculator  ================


Enter your height in cm: 158
Enter your weight in kg: 70
You BMI is 28.040378144528116
You are overweight.
```

# CONCLUSION

In conclusion, the BMI Calculator offers a convenient means for individuals to assess their weight status based on the widely accepted BMI metric. With its intuitive interface and straightforward functionality, users can quickly obtain valuable insights into their health and wellness. Whether used for personal monitoring or professional purposes, the BMI Calculator serves as a valuable tool in promoting awareness of healthy weight management practices.