

BMI Calculator Code

This Python program is a **command-line BMI (Body Mass Index) calculator** that allows users to input their weight (in kilograms) and height (in meters) to compute their BMI and classify it into predefined categories. The program is structured into three main functions:

Features of the Code:

- BMI Calculation:**
 - The `calculate_bmi()` function computes the BMI using the formula:
$$BMI = \frac{\text{weight (kg)}}{\text{height (m)}^2}$$
- BMI Classification:**
 - The `classify_bmi()` function categorizes the BMI into four groups:
 - Underweight:** $BMI < 18.5$
 - Normal weight:** $18.5 \leq BMI < 24.9$
 - Overweight:** $25 \leq BMI < 29.9$
 - Obese:** $BMI \geq 30$
- User Input Handling:**
 - The `main()` function prompts users to input their weight and height.
 - It converts the input values to floating-point numbers.
 - The function ensures that weight and height are **positive values** to prevent invalid calculations.
- Error Handling:**
 - If the user enters a non-numeric value, the program catches the `ValueError` and prompts the user with:
"Invalid input. Please enter numeric values."
 - If the user enters zero or negative values for weight or height, the program displays a warning message and terminates execution.
- Formatted Output:**
 - The program rounds the BMI value to **two decimal places** for readability.
 - It clearly displays both the **BMI value** and its corresponding **category**.

How the Program Works

- The user runs the script.
- It prompts the user to enter their weight (in kg) and height (in meters).
- The program checks for valid inputs:
 - If valid, it calculates BMI and determines the classification.
 - If invalid (non-numeric or negative values), it displays an appropriate message.
- The final BMI value and classification are printed to the screen.

Example Run

```
Enter your weight in kilograms: 70
Enter your height in meters: 1.75
Your BMI is: 22.86
Category: Normal weight
```

This program is **simple, efficient, and user-friendly**, ensuring accurate BMI calculations while handling errors gracefully. □