

Internship Project Report – Task 2

BMI Calculator – Task Report Content

Intern Details:

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- College: Podhigai College of Engineering and Technology
- Academic Year: 2022–2026
- CGPA: 8.83

Objective:

To develop a Python program that calculates Body Mass Index (BMI) based on user-provided height and weight, and classifies the result into standard health categories like Underweight, Normal, Overweight, or Obese.

Technologies Used:

- Python 3.x
- input() function
- float() conversion
- Conditional statements (if, elif, else)

- Error handling using try-except
- Python IDLE or VS Code
- Screenshot/recording tools

Logic Used:

1. Take weight (kg) and height (cm) from the user
2. Convert height from cm to meters
3. Calculate BMI using the formula:

python

Copy code

$$\text{BMI} = \text{weight} / (\text{height_m} ** 2)$$

4. Classify the result:
 - o Underweight: BMI < 18.5
 - o Normal weight: 18.5–24.9
 - o Overweight: 25–29.9
 - o Obese: 30 and above
5. Handle invalid input using try/except and check for non-positive values

Source Python Code:

try:

```
weight = float(input("Enter your weight in kg: "))
height_cm = float(input("Enter your height in cm: "))
if weight <= 0 or height_cm <= 0:
    print("    Error: Height and weight must be positive
numbers.")
else:
    height_m = height_cm / 100
    bmi = weight / (height_m ** 2)
    print(f"\nYour BMI is: {bmi:.2f}")
    if bmi < 18.5:
        print("You are Underweight.")
    elif 18.5 <= bmi < 24.9:
        print("You are Normal weight.")
    elif 25 <= bmi < 29.9:
        print("You are Overweight.")
    else:
        print("You are Obese.")
except ValueError:
    print("    Error: Please enter valid numbers only")
```

Output Screenshot (Both valid and invalid input):

```

IDLE Shell 3.13.1
File Edit Shell Debug Options Window Help
Python 3.13.1 (tags/v3.13.1:0671451, Dec 3 2024, 19:06:28) [MSC v.1942 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\sandhiya\OneDrive\Documents\python\task_2_BMI_calculator.py =====
Enter your weight in kg: 40
Enter your height in cm: 165

Your BMI is: 14.69
You are Underweight.
>>>
===== RESTART: C:\Users\sandhiya\OneDrive\Documents\python\task_2_BMI_calculator.py =====
Enter your weight in kg: 55
Enter your height in cm: 160

Your BMI is: 21.48
You are Normal weight.
>>>
===== RESTART: C:\Users\sandhiya\OneDrive\Documents\python\task_2_BMI_calculator.py =====
Enter your weight in kg: 75
Enter your height in cm: 160

Your BMI is: 27.55
You are Overweight.
>>>
===== RESTART: C:\Users\sandhiya\OneDrive\Documents\python\task_2_BMI_calculator.py =====
Enter your weight in kg: 95
Enter your height in cm: 160

Your BMI is: 37.11
You are Obese.
>>>
===== RESTART: C:\Users\sandhiya\OneDrive\Documents\python\task_2_BMI_calculator.py =====
Enter your weight in kg: abc
Error: Please enter valid numbers only.
>>>
===== RESTART: C:\Users\sandhiya\OneDrive\Documents\python\task_2_BMI_calculator.py =====
Enter your weight in kg: -55
Enter your height in cm: 160
Error: Height and weight must be positive numbers.
>>>

```

Conclusion:

This project demonstrates the use of Python for real-world health applications. The BMI Calculator not only performs numeric computation but also applies conditional logic and error handling to ensure user-friendly and reliable output.