



TEHRAN UNIVERSITY  
OF  
MEDICAL SCIENCES

Instructor: Dr. Hajialiasgari  
Teaching Assistant: Benyamin Ghanbari  
Semester: Fall – 2024

Assignment 1

Deadline: 2024-Nov-10

---

## Python Course Chapter 1

---

### Question 1:

Design a program that accepts a user's weight (in kilograms) and height (in meters) as input and calculates their Body Mass Index (BMI). Based on the calculated BMI, the program should categorize the user's weight status according to the following criteria:

- If  $BMI < 18.5$ , output "Underweight."
- If  $18.5 \leq BMI < 24.9$ , output "Normal weight."
- If  $25 \leq BMI < 29.9$ , output "Overweight."
- If  $BMI \geq 30$ , output "Obesity."

### Question 2:

Write a program that reads a number from the input and prints the next multiple of 10 that is greater than this number. For example, if the input number is 11, it should print 20. If the input number is 40, it should print 50.

### Question 3:

Tehran University wants to take students on a scientific visit to the hospital. Write a program for the university that receives the number of students and calculates and announces the visit cost per student based on the following details:

- Food cost per person: 5000 Toman

- Entry fee per person: 20000 Toman
- Bus rental cost: 150000 Toman per bus
- Bus capacity: 10 people

**Note:** Even if a bus is not full, the full rental cost must still be calculated.