



Issue Date: 11 March, 2025

Due Date: 17th March, 2025 (Monday at 11:59)

Submit a Word file (.docx/.pdf) containing all task's code screenshots, their output screenshots, with explanations if needed. Also, create a separate Python (.py) files for each question and create a .zip file and that zip file should be submitted at GCR. And the file names should include your name and Intern ID as per instructed.

Python Assignment 02 Task

1. Write a Python program that includes three separate functions to:
 - **Calculate the area of a trapezoid**
 - **Calculate the area of a parallelogram**
 - **Calculate the surface area and volume of a cylinder**

➤ Each function should take the necessary arguments and if user select Area for trapezoid then It should be print.
2. Write a Python function to check if the last letter of user input string is a vowel or a consonant.
3. Write a program to make function employee() meeting following requirements:
Employee name and monthly salary will be passed to this function. This function will cut 2 percent tax from salary and display salary after tax with name of employee. If the salary is missing in the function call then assign default value 10,000 to salary.
4. Write a function that will take a number 'n' input by user and will return its factorial.
5. Write a Python function to multiply all the numbers in a list.
6. You have a list of daily temperatures recorded over a month. Write code to:

- Calculate and print the average temperature for the month.
- Find and print the highest and lowest temperatures.
- Sort the temperatures in ascending order.
- Remove the temperature record for a specific day

Given Temperature list in °C = [22, 24, 30, 35, 29, 22, 20, 19]

7. Write a python program that takes any two lists from user having same number of elements. Make a dictionary from these two lists in such a way that first element of first list will be key and first element of second list will be its associated value and so on and print the result.

Do not use any library. Make logic yourself.

8. Write a function named Capital_Convertor() that get the name from user and return the name is in Capital/Block Letters.
9. Why do we use functions in Python? Explain at least three advantages of using functions in programming with examples. (Not required coding, theory question)
10. An online shopping platform wants to calculate the total bill for a customer, including a discount. The discount is applied based on the total purchase amount.
 - If the total amount is above \$500, a 10% discount is applied.
 - If the total amount is above \$1000, a 20% discount is applied.

Write a Python function that takes the total purchase amount as an argument and returns the final bill after applying the discount. Explain why using a function makes the code more efficient.

Resource

Function in Python Programming Language:

<https://youtu.be/dyvxxJSGUsE?si=Z9eVcyBMFP4mWs3O>