**Class 1 Assignments**

**Note: Define Inputs as variables**

**Statement**: Write a Python program that calculates the area of a circle given its radius.

Input: Radius of the circle (as a float or integer)

Expected Output: The area of the circle

Constraints: Radius should be a positive number.

**Statement**: Create a Python program that takes a user's name and age as input and prints a message telling them how old they will be in 10 years.

Input: Name (string), Age (integer)

Expected Output: "{Name}, in 10 years you will be {Age + 10} years old."

Constraints: Age should be a non-negative integer.

**Statement**: Develop a Python program that converts temperature from Celsius to Fahrenheit.

Input: Temperature in Celsius (as a float or integer)

Expected Output: Temperature in Fahrenheit

Constraints: None.

**Statement**: Write a Python program that reverses a given string.

Input: A string

Expected Output: The reversed string

Constraints: None.

**Statement**: Create a Python program that calculates the sum of all numbers from 1 to a given number.

Input: A positive integer

Expected Output: The sum of all numbers from 1 to the given number

Constraints: Input should be a positive integer.

**Statement**: Develop a Python program that counts the number of vowels in a given string.

Input: A string

Expected Output: Number of vowels in the string

Constraints: None.

**Statement**: Write a Python program that takes a sentence as input and capitalizes the first letter of each word.

Input: A sentence (string)

Expected Output: The sentence with the first letter of each word capitalized

Constraints: None.

**Statement**: Create a Python program that checks if a given year is a leap year or not.

Input: A year (integer)

Expected Output: "Leap year" if it's a leap year, "Not a leap year" otherwise

Constraints: Input should be a positive integer.

**Statement**: Develop a Python program that calculates the factorial of a given number.

Input: A non-negative integer

Expected Output: The factorial of the given number

Constraints: Input should be a non-negative integer.

**Statement**: Write a Python program that checks if a given string is a palindrome or not.

Input: A string

Expected Output: "Palindrome" if it's a palindrome, "Not a palindrome" otherwise

Constraints: None.

Submission Guidelines:

Create a Github Repo and Share the Public Link of the Repository with [**prajwal@jnanamarga.in**](mailto:prajwal@jnanamarga.in)

If your not comfortable with Github, Simpli create a Google Colab Notebook or a Simple python File and share it to me on Email