# TASK – WEEK 2

# TASK: Understanding Python data types and control flow

## 1. Immutable Data Types

- Write a simple script to demonstrate that integers and floats are immutable.

## 2. Leap year checker

- Create a program that asks the user to enter a year and then checks whether that year is a leap year. Print “This is a leap year.” or “This isn’t a leap year.” based on the provided year.

Hint:   
- use “input()” function -> year = input(“Enter desired year: ”)  
- the input() function returns a “str” type

## 3. Ternary conditional operator

- Write a one-line expression using the ternary operator to check if a number is positive or negative and print the result.

## 4. Boolean logic practice

- Create a script that evaluates several Boolean expressions using logical operators (and, or, not). The following variables are defined:

x = 5   
y = 0   
z = -3

1. Check if **all three numbers are greater than zero**.  
2. Check if **at least one number is equal to**.  
3. Check if **none of the numbers are negative**.

Use print statements to show the results.

## 5. Type conversion and identity

- Demonstrate how to convert values between int, float, and bool. Create a script with the following variables defined:

x = 100   
y = -30  
z = 0

Then compare the values and “identity” of the objects.

## Note

- Tasks are not mandatory; they are voluntary.  
- Tasks are not time-limited when they need to be done – ideally, they should follow up on a weekly presentation, but not necessarily.  
- Saved .py files, zip and send to emails:  
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