

## Lab Basic (lecture 2)

Please put everything into one Jupyter Notebook file (.ipynb) and submit it on Blackboard.

### 1. Print the following text:

- Hello world!
- Hello, 'word!
- Hello word (*tab separated*)
- Hello  
world

### 2. Arithmetic operators and type conversion

Assume the following values:  $x=7$ ,  $y=3$ ,  $m='2.7'$

Print the following information:

- The sum of  $x$  and  $y$
- The division of  $x$  by  $y$
- The division of  $x$  by  $y$  and only take the floor of the result
- The remainder of  $x$  divided by  $y$ .
- The type of  $m$ .
- The sum of  $y$  and  $m$  (after type conversion)

### 3. With your own input

Assign value of  $x$  and  $y$  during execution of the program (user input). Then print the sum of  $x$  and  $y$ , and the division of  $x$  by  $y$ .

### 4. Comparison operators

$a=10$ ,  $b=7$ . Check whether each one of the following statements is true. Please label what is the comparison that you are executing.

- $a > b$ ?
- $a$  equals  $b$ ?
- $a$  not equal to  $b$ ?

### 5. Logical operator

Given the value of  $a$  and  $b$  in previous question, find out whether the following statement is true

- Variable  $a$  is greater than or equal to  $b$ , and  $a$  is greater than 5
- Variable  $a$  is less than or equal to  $b$ , or the value of  $a$  is greater than 5
- What is the value of 'not  $a$ '?

### 6. Precedence of operators

Given the value of  $a$  and  $b$  in previous question, evaluate each one of the expression, and then enter in Python to see if your calculation is correct:

- $(a+b) > 15$  or  $(a-b) < 8$
- $(a+b) > 15$  or  $((a-b) < 8$  and False)
- $a+b > 15-2*2**4/4$  and (not False)

### 7. Modulus operator

Given an integer number during execution (user input), find the last two digits of this number.