MINISTRY OF EDUCATION
IMAM ABDULRAHMAN BIN
FAISAL UNIVERSITY
DEANSHIP OF PREPARATORY
YEAR AND SUPPORTING STUDIES
COMPUTER SCIENCE DEPARTMENT

وزارة التعليم جامعة الإمام عبد الرحمن بن فيصل عمادة السنة التحضيرية و الدراسات المساندة



# **Lab 6: Built-in Functions**

# Objective(s)

• To be able to use built-in functions in Python.

# Tool(s)/Software

Pycharm

or

IDLE (Python 3.10 or above)

or

https://www.online-python.com/

# **Description**

• Write python programs that solve the following problems:

# Tasks/Assignments(s)

## Q1:

Write a function in Python that takes four numbers as parameters to calculate the distance between (x1,y1) and (x2,y2). Use the built-in function sqrt().

Hint = 
$$\sqrt{((x^2-x^1)^2+(y^2-y^1)^2)}$$
.

#### **Q2**:

Modify the **Q1** in such a way that the parameters of the function are two lists with X1 and Y1 belongs to a list named P1, X2 and Y2 belongs to a list named P2.

#### **O3**:

Write a python program to calculate and print the value of X to the power of Y ( $X^Y$ ). Both values are given by the user. You need to use a built-in function.

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## Q4:

Write a Python program to print the length and sort the following list: L=["h", "b", "a", "c", "f", "d", "e", "g"]. Use a built-in function.

#### **Q5**:

Write a Python program to print the name with the highest and lowest value, ordered alphabetically from the following tuple: names= ('Sarah', 'Ahmed', 'Ahlem', 'Zayed')

## **Q6**:

Write a Python program to create a list of five random floats rounded to the nearest integer.

## **Deliverables**

- Submit the files via blackboard. If blackboard is not working, send an email.
- No submissions or late submissions are penalized (from participation marks).
- Name the document Python\_Lab6\_StudentName\_Q#
- You need to submit 6 files.

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