Sistemas Informáticos (Computer Systems)

Scripting in Python 02. Activities 01

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Scripting in Python - Part 02

1. Previous information

To get user input in python you have to use the function input. This function returns a string. For example:

```
txt = input("Type something interesting: ")
print("You said: ", txt)
```

To convert a string into a number, you have to use the function "*int()*" (to get an integer) or "*float()*" (to get a decimal number). For example:

```
txt = input("Type something interesting: ")
txtInt=int(txt)
```

Notes that for numerical operations such as mathematical operations ("+", "-", "*", "/", ".", "%", etc.) or numerical comparisons ("<", ">", "<=", ">=", "==", etc.), the data what has been read as string, must be converted to numerical data in order to perform those operations.

2. Exercise 01

Write a Python program that read four numbers, and then it says which number is the greater and which is the least of them.

3. Exercise 02

Write a Python program for guessing a number between 1 and 99. They can try to guess it in at maximum 5 tries.

4. Exercise 03

Write a Python program that read two words, and then it says if they are equal or not.

5. Exercise 04

Write a Python program that reads three numbers, and then it says if three of them are equal, only two are equal or none are equal.

6. Exercise 05

Write a Python program that reads two numbers (temperature and humidity) to check if school should be cancelled or not:

- If temperature is greater or equal than 40, it prints "Cancel School".
- If temperature is lower than 40 but greater than 32 and humidity is greater than 75, it prints "Cancel school".
- If temperature is lower than 32 but greater than 28 and humidity is greater than 88, it prints "Cancel school".
- If temperature is lower than -25, it prints "Oh my god! It is the end of the world!".
- Otherwise, print "Go to School!".

7. Exercise 06

Repeat exercise 2, but give a little help to the computer to get the number right. After each attempt by the computer, if it has not succeeded, it asks for information on whether the number is greater or less than the one it has proposed. Also, in this program, the number of tries is 20.

It is mandatory to implement this exercise using a for loop or a while loop.