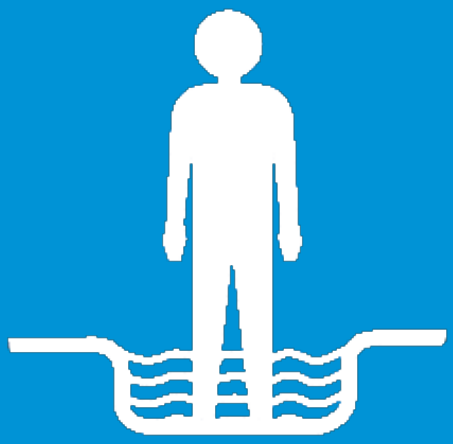
{EPITECH}

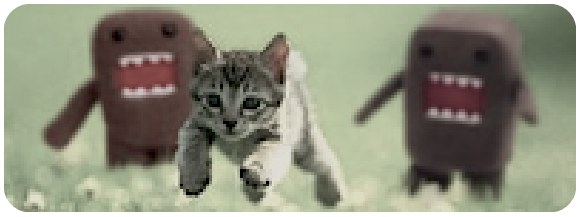
PRE-POOL

DAY 03



PRE-POOL

BANDIT WARGAME
In addition to the tasks below, you must go as far as possible in this game.
Work on it as soon as you have a bit of time, or whenever you need a break in you day!



Strings

Task 1.1

Store a string in a variable. Then, print it.

Task 1.2

Print the 1st character of your string.
And also the 5th one.

Task 1.3

Print the last character of your string.

Your code should work for any non-empty string.

Task 1.4

In one line, print from the 5th to the 10th character of this string.

String methods

Task 2.1

Write a snippet of code that transforms any string in lower case.

Task 2.2

Write a snippet of code that replaces every “tu” in a string by “ta”.
For instance, the input `tutu on the tuki-kata` will output `tata on the taki-kata`

Task 2.3

Explain the following code and its printed result:

```
string = "hello world"
position = string.find("a")
print(position)
```

Task 2.4

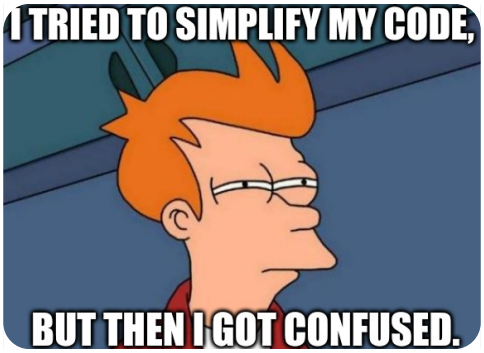
Can you predict the result of the following snippet of code?

```
p = "abcdefghij"
print(p[::-2][:5][::-1][3:])
```

Do you really know how substrings work in Python?

Task 2.5

Can you simplify the previous code?



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Task 2.6

Write a snippet of code that prints 10 times a given string.

Task 2.7

Rewrite the previous code in as few characters as possible.

Task 2.8

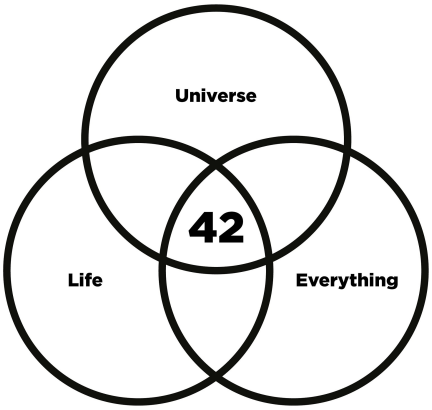
Debug the following code:

```
s1 = "Hello"
s2 = 42
concat = s1 + s2
print(concat)
```

Task 2.9

Complete the following code so that it prints `The string "42 is the answer" contains 16 characters.`

```
string1 = "42"
string2 = "is"
string3 = "the answer"
concat = xxxxxxxxxxxxxxxxxxx
print("The string xxxxxxxxxxxxxxxxxxx characters).")
```



CHALLENGE

Write a snippet of code that counts the number of occurrences of the strings “Cat”, “Garden” and “Mice” in any string.

The substring can be read left to right or right to left
Matches must be case insensitive.

The string “thE Cat’s tactic wAS tO surpRISE thE mIce iN tHE gArdeN” should return 4.

User input

Task 3.1

Ask the user his/her name and then greet him/her with “Hello *username*”.

Task 3.2

Ask the user his/her name and then greet him/her with “Hello *Username*”, with the user’s name always printed with its first (and only the first) letter capitalized.

Task 3.3

Prompt the user for two numbers and then print “The sum of the two provided numbers is *sum*”.

Task 3.4

Complete the following snippet of code:

- ✓ that asks the user for a whole number ;
- ✓ and returns `<class 'int'>`.

Can you understand what `<class 'int'>` means?

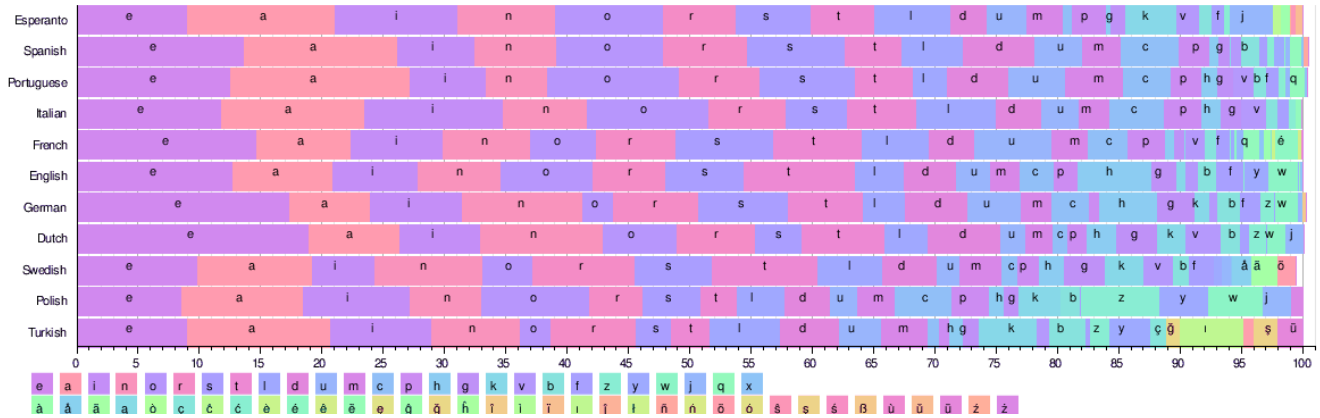
Task 3.5

Write a program that extracts the first word of each sentences into a string, and then join them to make a new sentence. For instance, the input `This is a test. Is it possible to fly? Good things come to those who never give up.` should display `This is good.`

Mind the capitalization!

Task 3.6

Write a program that counts the frequency of each letter from a given text and infers the language of this very text.



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