Python notes

The Python Package Index (PyPI) is a repository of software for the Python programming language.

PyPI helps you find and install software developed and shared by the Python community

useful references

https://pybit.es/special-learning-python.html

https://pybit.es/python-resources.html

https://blog.miguelgrinberg.com/post/the-flask-mega-tutorial-part-i-hello-world

https://pybit.es/pages/challenges.html

Python bites

Day 1:

The latest way to print to the screen in Python (>= 3.6) is with [f-strings](https://docs.python.org/3/whatsnew/3.6.html" \l "pep-498-formatted-string-literals).

### PEP 498: Formatted string literals

[PEP 498](https://www.python.org/dev/peps/pep-0498) introduces a new kind of string literals: f-strings, or [formatted string literals](https://docs.python.org/3/reference/lexical_analysis.html" \l "f-strings).

Formatted string literals are prefixed with 'f' and are similar to the format strings accepted by [str.format()](https://docs.python.org/3/library/stdtypes.html" \l "str.format). They contain replacement fields surrounded by curly braces. The replacement fields are expressions, which are evaluated at run time, and then formatted using the [format()](https://docs.python.org/3/library/functions.html" \l "format) protocol:

>>>

>>> name = "Fred"

>>> f"He said his name is {name}."

'He said his name is Fred.'

>>> width = 10

>>> precision = 4

>>> value = decimal.Decimal("12.34567")

>>> f"result: {value:{width}.{precision}}" # nested fields

'result: 12.35'

Day 2:

Python interactive input

Python has an input function which lets you ask a user for some text input. You call this function to tell the program to stop and wait for the user to key in the data. In Python 2, you have a built-in function raw\_input(), whereas in Python 3, you have input(). The program will resume once the user presses the ENTER or RETURN key.

## Give a helpful hint during the prompt

It is often a good idea to tell the user what to input. You can do this by putting the hint in quotes inside the input parentheses. The hint will come in the next line and will wait for the user input. You can then type the input and when you hit the ENTER key, it will capture the input.

Say you want to print a specific string (a sequence of characters such as letters, punctuation marks, numbers, and letters) N number of times. The (asterisk) \* operator performs repetition on strings.

>>> print("5"\*6)

555555

>>> print(5,6,7)

5 6 7

To change the output to what you want, use the keyword arguments sep and end to print ( ). When separating the output with a comma delimiter, you can also define the separation format using the â€œsepâ€ keyword.

>>> print('LOVE', 30, 82.2)

LOVE 30 82.2

>>> print('LOVE', 30, 82.2, sep=',')

'LOVE', 30, 82.2

By default, print goes to a new line at the end. You can change this by using the keyword â€œendâ€

>>> print('LOVE', 30, 82.2, sep=',', end='!!\n')

'LOVE', 30, 82.2!!

>>> for i in "python":

... print(i)

...

p

y

t

h

o

n

>>> for i in "python":

... print(i, end=":")

...

p:y:t:h:o:n:

>>> population = 7

>>> print("Population in 2050: ", population \* 1.28) # making the calculation in place

Population in 2050: 8.96

## Convert String to Lower Case

Using Python programming language you can use .lower() function to convert any string to lower case.