## Basics

### installations

python.org

anaconda.org

### IDEs Editors

pycharm

vscode

visual studio

jupyter

spyder

idle

### file extensions

.py core python files

.ipynb python notebooks

jupyter

spyder

### REPL

general programming concept

Read Eval Print Loop

### Keywords

True False

### features :

-- everything is an object

-- even functions

### comments

# single line comments

docstring used as multi line comments

## Data Type

### regular:

int

float

str

complex

6 + 7j

### bool:

True

False

## Operators

### arithmetic

+

-

/

\*

% remainder

// floor division

\*\* power of

= assignment

## Functions

### general:

print

type

### sequences:

len

### cast:

int

float

str

## str

strings (text)

double or single quotes

index

IndexError (out of range)

negative

slicing

no IndexErrors

steps

| s | t | r | i | v | e | r |
| --- | --- | --- | --- | --- | --- | --- |
| 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| -7 | -6 | -5 | -4 | -3 | -2 | -1 |

immutable

### str functions

lower, upper, capitalize, title

index, rindex, count

isalpha, isalnum, isdigit

replace

### escape sequences :

\n new line

\t tab

\b backspace

\\ \

\" "

obsolete

\v

\r

extras:

if \_\_name\_\_ == “\_\_main\_\_”

pip

line 1

line 2 (launch thread)

line 3

line 4