Python

Introduction

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R, python

statistics, data science, machine learning

Hello, world

Indentation

- Try to be like pseudo-code
- Consistency is the key
- Custom is 4 spaces, but there is variation

- import
- help, ?

Python

Common types:

- int
- float
- str
- list, tuple
- dict, set
- NoneType

Control flow

- if, elif, else
- for, for in
- while
- range, zip, items
- return

Logic

- True
- False
- and, or, not

Structure access

- list elements, slices, stride
- list comprehensions
- and for dicts
- strings look like lists
- in
- sort() vs .sort()

functions

- def
- parameters (and default, and named)
- comments

exercise

Write the function ‘find‘ to find a character in a string.

For example, `find("le chien est bleu", "t")`.

strings

try asking for help on a string

Some useful operations:

- find
- startswith
- endswith
- in
- +

exercise

Write a function that removes the nth element of a list.

exercise

Write a function that generates a dict of the first 20 integers mapped to their squares.

modules

- random
- time
- datetime
- math

exercise

Write `Fib(n)` to generate the first n Fibonacci numbers.

exercise

Write `Fib(n)` to generate the first n Fibonacci numbers.

Now do it better.

`%timeit`

Review

https://github.com/addfor/tutorials

II. Python Basic Concepts

Introduction au pandas

Pour la prochaine fois

pandas

titanic

`travail-pour-la-prochaine-fois.txt`

N'oubliez pas le tutoriel d'Addfor.

Questions?