Discovery Piscine

Cell 7-3 - Python

Summary: *In this cell, we see how to manipulate dictionaries. Like arrays, but more convenient!*

Version: 1.00

Contents

Chapter I

A word about this Discovery Pool

Welcome !

You will begin the first cell of this discovery pool of computer programming. We want to both show you what the code is that makes up the software you use every day, and at the same time experience peer-learning, an educational model of 42.

Programming involves logic (not math). It provides you with elementary bricks, which you assemble as you wish. There is never THE solution to a problem. There will be your solution, there will be those of each of your neighbors. Slow or fast, ugly or beautiful, if that gets the job done, that's all it takes! This assembly of bricks will constitute a series of orders (calculation, display, ...) that the computer will perform, in the order you have chosen.

Rather than giving you a course with only one solution for each problem, and which will probably be outdated in a few years, we have chosen to put you in a peer-learning situation. You are going to look for the elements that could serve you for your challenge, sort out those that are actually interesting by testing and manipulating them, and create your own program. To do this, discuss with others, exchange your points of view, find new ideas together, and finally test for yourself even to convince you that it works.

Peer-evaluation is a key moment to discover other ways of doing things, as well as special cases that you have not thought of and that could undermine your program (think about your degree of nervousness with software which crashes). Like different clients who don't pay attention to the same things, each reviewer will be different from the last. And who knows, you might have made new acquaintances for later collaborations.

At the end of this pool, you will not have done the same things as the other participants, you will not have validated the same projects, you will have chosen to do one challenge rather than another ... .and that's normal! It's both a collective and a personal experience. Everyone will benefit from what he or she experiences during this time.

Good luck to all, we hope you will like this discovery.

Chapter II

Introduction

What this cell will show you:

- You will learn how use the dictionary.

Chapter III

General instructions

Unless explicitly specified, the following rules will apply every day of this Piscine.

- This subject is the one and only trustable source. Don't trust any rumor.

- This subject can be updated up to one hour before the turn-in deadline.

- The assignments in a subject must be done in the given order. Later assignments won't be rated unless all the previous ones are perfectly executed.

- Be careful about the access rights of your files and folders.

- Your assignments will be evaluated by your Piscine peers.

- All shell assignments must run using `/bin/bash`.

- You <u>must not</u> leave in your turn-in your workspace any file other than the ones explicitly requested By the assignments.

- You have a question? Ask your left neighbor. Otherwise, try your luck with your right neighbor.

- Every technical answer you might need is available in the `man` or on the Internet.

- Remember to use the Piscine forum of your intranet and also Slack!

- You must read the examples thoroughly. They can reveal requirements that are not obvious in the assignment's description.

- By Thor, by Odin! Use your brain!!!

Chapter IV

Exercise 03: persons_of_interest

	Exercise 03
	People Worth Knowing
Turn-in directory : *ex03/*	
Files to turn in : `persons_of_interest.py`	
Allowed functions : `All`	

- Create a script called `persons_of_interest.py`.

- It will contain a method called `famous_births`.

- This method will take a dictionary representing historical figures as a parameter. Each entry in the dictionary is itself a dictionary with the keys: `:name` and `:date_of_birth`.

- The method will sort the dictionary passed as a parameter in order of birth dates, and then display each entry (see the example below).

- For example, the following script:

```
# your method definition here

women_scientists = {
"ada": { "name": "Ada Lovelace", "date_of_birth": "1815" },
"cecilia": { "name": "Cecila Payne", "date_of_birth": "1900" },
"lise": { "name": "Lise Meitner", "date_of_birth": "1878" },
"grace": { "name": "Grace Hopper", "date_of_birth": "1906" }
}

famous_births(women_scientists)
```

will have the following output:

```
?> ./persons_of_interest.py
Ada Lovelace is a great scientist born in 1815.
Lise Meitner is a great scientist born in 1878.
Cecila Payne is a great scientist born in 1900.
Grace Hopper is a great scientist born in 1906.
?>
```

Google python dictionary & sorted

You can also google the aforementioned names, they are worth it!

Chapter V

Submission and peer-evaluation

- In the `discovery_piscine` folder at the root of your home, create a new `cell07` folder and navigate to it.

- From now on, all exercises should be in the correct folder rendering. Exercise 00 in the `ex00` folder, Exercise 01 in the `ex01` folder, etc ... you get the logic.

> ⚠ Please note, during your defense anything that is not present in the folder for the day will not be checked.