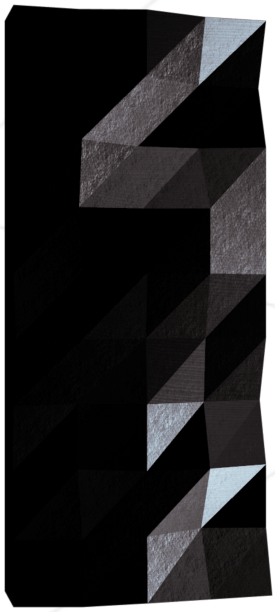

Discovery Piscine

Module0 - Python

Summary: In this Module0 we see how to use the shell and how to create your first Python script.

Version: 2.1

Contents

Chapter I

A word about this Discovery Pool

Welcome !
You will begin the first Module of this Discovery Piscine of computer programming. Our goal is to introduce you to the code behind the software you use daily and immerse you in peer learning, the educational model of 42.

Programming is about logic, not mathematics. It gives you basic building blocks that you can assemble in countless ways. There is no single "correct" solution to a problem—your solution will be unique, just as each of your peers' solutions will be.

Fast or slow, elegant or messy, as long as it works, that's what matters! These building blocks will form a sequence of instructions (for calculations, displays, etc.) that the computer will execute in the order you design.

Instead of providing you with a course where each problem has only one solution, we place you in a peer-learning environment. You'll search for elements that could help you tackle your challenge, refine them through testing and experimentation, and ultimately create your own program. Discuss with others, share your perspectives, come up with new ideas together, and test everything yourself to ensure it works.

Peer evaluation is a key opportunity to discover alternative approaches and spot potential issues in your program that you may have missed (consider how frustrating a program crash can be). Each reviewer will approach your work differently—like clients with varying expectations—giving you fresh perspectives. You may even form connections for future collaborations.

By the end of this Piscine, your journey will be unique. You will have tackled different challenges, validated different projects, and chosen different paths than others—and that's perfectly fine! This is both a collective and individual experience, and everyone will gain something from it.

Good luck to all; we hope you enjoy this journey of discovery.

Chapter II

Introduction

What this Module will show you:

- Discover the terminal and the command line.
- First commands to navigate, modify and create in the filesystem.
- Create your first script in Python.
- How to make your first Hello-world.

Chapter III

General instructions

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

- This document is the only trusted source. Do not rely on rumors.
- This document may be updated up to one hour before the submission deadline.
- Assignments must be completed in the specified order. Later assignments will not be evaluated unless all previous ones are completed correctly.
- Pay close attention to the access rights of your files and folders.
- Your assignments will be evaluated by your fellow Piscine peers.
- All shell assignments must run using `/bin/bash`.
- You must not leave any file in your submission workspace other than those explicitly requested by the assignments.
- Have a question? Ask your neighbor on your left. If not, try your neighbor on your right.
- Every technical answer you need can be found in the `man` pages or online.
- Remember to use the Piscine forum of your intranet and Slack!
- Read the examples thoroughly, as they may reveal requirements that aren't immediately obvious in the assignment description.
- By Thor, by Odin! Use your brain!!!

Chapter IV

Exercise 00 : The basic

	Exercise 00
Exercise 00 : The basic	
Turn-in directory: $ex00/$	
Files to turn in: `None`	
Allowed functions: `None`	

- Create a folder named `discovery_piscine` at the root of your home directory, and navigate into it.
- Create a new folder named `module0` and move into that folder.
- Withing `module0`, create a new folder called `ex00`. Do not put anything in it.
- From this point onward, ensure that each exercise is located in its correct folder Place Exercise 00 in the `ex00` folder, Exercise 01 in the `ex01` folder, and so on. You get the idea!

`Complete this exercise using mkdir and cd; otherwise, it won't serve its purpose. :)`

Chapter V

Exercise 01 : My first script

	Exercise 01
Exercise 01 : My first script	
Turn-in directory: *ex*01/	
Files to turn in: `42.py`	
Allowed functions: `All`	

- Create a script named `42.py`.
- When executed, the script should display “42” followed by a newline.

```
?> python3 42.py | cat -e
42$
?>
```

Does it sound simple? It should be! Python is a language that reads close to English, making it easier to serach solutions.

Chapter VI

Exercise 02 : Hello-world

	Exercise 02
Exercise 02 : Hello-world	
Turn-in directory: $ex02/$	
Files to turn in: `hello_world.py`	
Allowed functions: `All`	

- Create a script named `hello_world.py`.
- When executed, the script should display “Hello World” followed by a newline.

```
?> python3 hello_world.py | cat -e
Hello World$
?>
```

Chapter VII

Submission and peer-evaluation

- You must have `discovery_piscine` folder at the root of your home directory.
- Inside the `discovery_piscine` folder, you must have a folder named `module0`.
- Inside the `module0` folder, you must have a folder for each exercise.
- Exercise 00 must be in the `ex00` folder, Exercise 01 in the `ex01` folder, etc.
- Each exercise folder must contain the files requested in the assignment.

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