Leiden University Medical Center

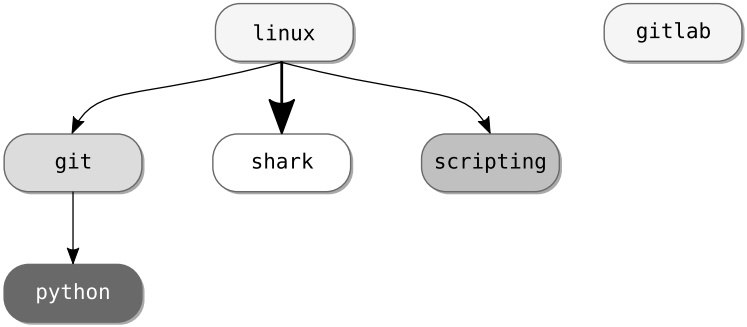
Python Course 2019

Outline

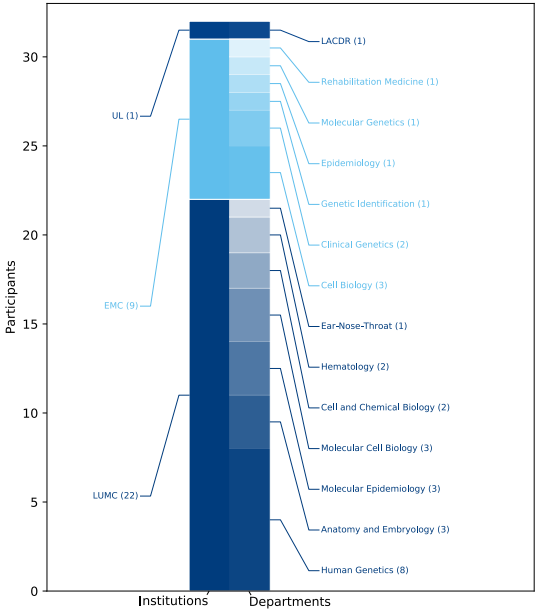
Introduction

- The course is targeted at PhD students, Postdocs, or anyone willing to learn how to program in Python.
- Participants are assumed to have some experience with programming, but not necessarily in Python.
- Participants should bring their own laptops for the practical sessions.

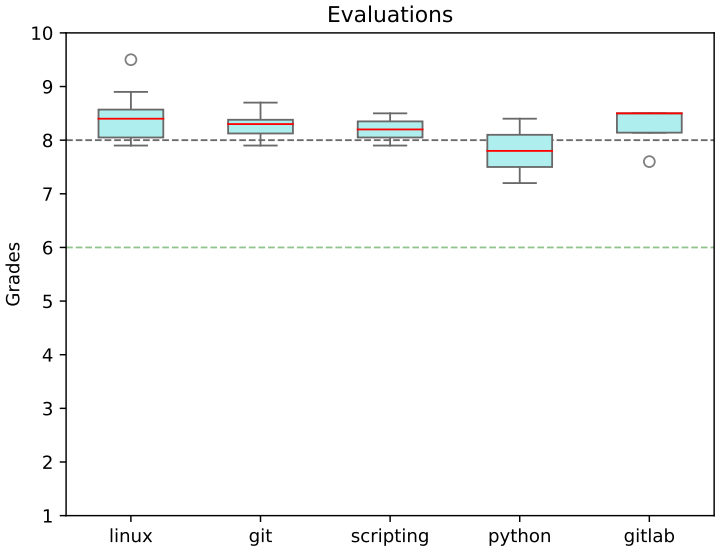
Courses Interaction



Previous Years Participants Distribution



Evaluations



Evaluations

What is your general opinion of this course? What grade would you give it (from 1 to 10)?

36/5 (10 / 5 / 7 / 7 / 7) = 7,2

- Very useful.
- While highly informative, the course was also high intensity and too pressured of times.
- The exercises were excellently but sometimes it was difficult to locate/remember the right slide to use to solve the problem.
- The course was good, but very information dense for a beginner.

Evaluations

What did you / did you not like about this course?

- Good examples for learning.
- It assumed that we had a lot of knowledge. The 1st and 2nd day the assignments were way too difficult. It should be in small steps.
- Gives overview.
- The intensity/pressure/little time to fully understand the information given.
- The structure, too many concepts in 4 days/no time to even read the slides.
- The course was very useful for learning how to manipulate my data, however, I think 4 days is too short for the information given in the course.

Evaluations

What would you like to change about the course?

- Some material to review before might be helpful in making so we all know the basics.
- More days and time in between these days. So for a few weeks and then 1 or 2 mornings. This was too intense.
- Less information, slower.
- It is an overload of concepts/assignments, there is not enough time to finish the exercises and not a personnel correction.
- I would extend the course with a few days to allow the participants more time to get to know python and solve the exercises.

Evaluations

Has this been a valuable course for you to take? Why or why not?

- Yes, Im no longer scared of python.
- Yes and no, good to make a start but at some points I got lost and then you don't learn anything.
- Apart from the intensity the course was highly informative and will serve as a good basis for future study, although it sometimes felt like a course and I did not lag down every aspect for more focussed study at a later time.
- Yes useful.
- Yes, I have learnt a lot of useful things specifically Pandas and pylab and Bokeh.

Evaluations

Are there any topics which should be presented in more details?

- Maybe a poll could be taken among students of what they are hoping to learn.
- Importing (personnel) data.
- Some aspects should be given more attention/time, while others can perhaps be omitted.
- Guided exercises maybe interactive way of solving problems.
- The day 1 and day 2 presentations.

Evaluations

Do you know any other topics that were not covered and that should be?

- No, a lot was presented.

Evaluations

What were the strong/weak points regarding the course organization?

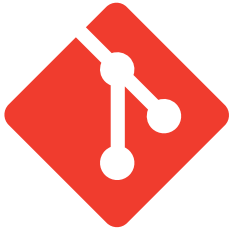
- Many people came from R, that could have been more incorporated into teaching.
- Good help from the supervisors during the afternoon.
- Strong: highly informative. Weak: intensity.
- The structure of the course is the weakest point. Should be given more time to finish exercises and maybe 1 lesson/week would be much better.
- Strong: all the information you need to get started using python. Weak: too little time get that also sink in and do the assignments.

What suggestions do you have to improve the instructors teaching?

- Help more with the assignments. So do it more step by step with the whole class together.
- Deeper explanation on how concepts work in coding while allowing more time to try out the code, even solving exercises together first, after which a practical session can still be held with similar exercises that are perhaps only slightly more difficult.
- A better structured lesson with more explanation and less time spent to 'type in by yourself' the same thing that appear on the screen (not applicable to every teacher)

2018 Working Environment

- Anaconda:
  - Python 3.7.
  - Comes with all that's required:
    - Python interpreter.
    - Jupyter Notebook.
    - Libraries: NumPy, Panda, matplotlib, Bokeh, Biopython, ...
- Git.



2018 Program

	Tuesday 27/11	Wednesday 28/11	Thursday 29/11	Friday 30/11
9:00 - 10:00	Welcome, Introduction to Python — Mihai	Assignments review — Mihai	Assignments review — Mihai	Assignments review — Jonathan/Mark
10:00 - 11:00	Data types — Mihai	String methods, errors, and exceptions — Mihai	Object-oriented programming — Jonathan	Data visualisation with Matplotlib — Guy
11:00 - 12:00	Flow control — Mihai	Standard library, reading, and writing files — Mihai	Jupyter Notebook — Mark	Data visualisation with Bokeh — Guy
12:00 - 13:00	Lunch break		Data mangling with pandas — Mark	Biopython — Sander
13:00 - 14:00	Practical session		Lunch break	
14:00 - 17:00				

2019 Participants

Philippe	Habets	Endocrinology	LUMC
Xu	Cao	Anatomy and Embryology	LUMC
Jip	Verschuren	Human Genetics	LUMC
Karamjit Singh	Dolt	Human Genetics	LUMC
Robbert	IJsselsteijn	Human Genetics	LUMC
Denise	de Wit	FLDO	LUMC
Maaike	van der Lee	KFT	LUMC
Hayat	Suleiman	Nephrology	LUMC
Bianca	van Tol	Cell and Chemical Biology	LUMC
Soheil	Yousefi	Clinical Genetics	EMC
Tesa	Severson	NKI	NKI

2019 Coordinates

Date	Location
26 November	J-1-83
27 November	P-5-34
28 November	P-5-34
29 November	J-1-83