



PyQB

Monga

Software

git
IDLE

Programming in Python¹

Mattia Monga

Dip. di Informatica
Università degli Studi di Milano, Italia

`mattia.monga@unimi.it`

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Lecture IV: Using the “naked” interpreter



The pieces of software

- Python 3.9.2, with pip and the IDLE editor (on MS Windows they are bundled together):
<https://www.python.org/downloads/>
- Git 2.30.2: <https://git-scm.com/downloads>
- (optional, Win and Mac only) Github desktop
<https://desktop.github.com/>

Homework assignments will be available via Github Classroom (you will need a Github account). For example:

<https://classroom.github.com/a/TpWhD1zt>

When you **push** (hand in) your solution, a suite of tests is run.

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Software Configuration Management



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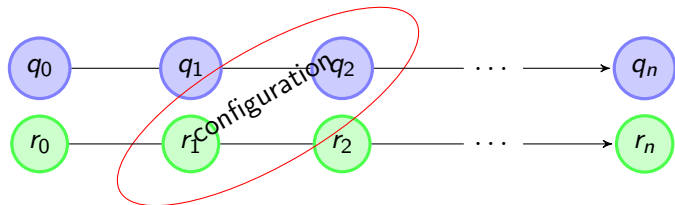
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Software Configuration Management like `git` are tools designed to track all the **revisions** of some set of software **artifacts** (files).



The system configuration itself evolves in different **versions**. One can have multiple **branches** of evolution.

A motivating talk on why you should use tools like these in your scientific work.



Git

git is a powerful tool to manage all this complexity in a very efficient (and distributed) way. It is not an easy tool, however. A good tutorial is [here](#). But for this course we use a very simplistic workflow:

- 1 Clone (copy) on your machine a repository `git clone ...`;
- 2 Work on the artifacts
- 3 Add the modified artifacts to the changeset you want to "publish" `git add ...`
- 4 Commit the changeset `git commit -m"message"` providing a comment about what have you done
- 5 Push the changeset on Github `git push`
- 6 (If someone else is working on the same artifacts you can sync with `git pull`)

All these steps are very easy (almost hidden, especially authentication) if you use Github desktop.

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Programs are data! File extension is conventionally `.py`

- To edit Python programs you need a **text editor**: something like Notepad, not Word (a word processor)
- IDLE is the “standard” one provided by the Python distribution itself: it is easy to use and it provides an easy way for executing programs without getting to the command line
- Other good choices: VS Code Atom Notepad++ or any other universal text editor like EMACS or vi