Git version control

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None

"This must be Thursday. I never could get the hang of Thursdays" (Arthur Dent, a few minutes before the Earth gets destroyed)

Motivation

What is Version Control?

- System that keeps tracks of different versions of a code (several file), tracking its entire history of creation.
- Accessible from a central repository, that stores all the versions, and allow communication between developers.
- Can revert to a previous version to **reproduce** exactly the behaviour at a certain time (bug hunting)



Softwares

Version Control Softwares

- CVS (Concurrent Versions System)
- Apache Subversion (SVN)
- Git



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Linus Torvalds: "Subversion used to say CVS done right: with that slogan there is nowhere you can go. There is no way to do cvs right."





git vs svn

- remote repositories both
- merging capabilities both



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- pull-request system (user subtmitted patch) git



Basic, master branch only

Into an existing or newly created directory

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BA (EPFL)

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- git status
- git add file.py
- git commit -m 'file added'

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• Local version is affected: Working Tree



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- Except locally only



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Configuration

Important files to be present

- a .gitignore
- a README.md or any other markup language

The git.config file should contain at minima:

```
[user]
  name = First Last
```

email = first.last@somewhere.com



More basic commands

See the history

with git log

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Unstage a file for commit

with git reset HEAD file.py





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Go to last week directory where you created a **very simple module**, and turn it into a git repository.





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Do some work

Make some changes, commit, try to see the history

