

## Digital\_Fabrication\_Studio.02 Version Control Systems – Git and GitHub

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## Today:

- \* Git
- \* GitHub
- \* Exercise





# 01. Git – the distributed architectural engine

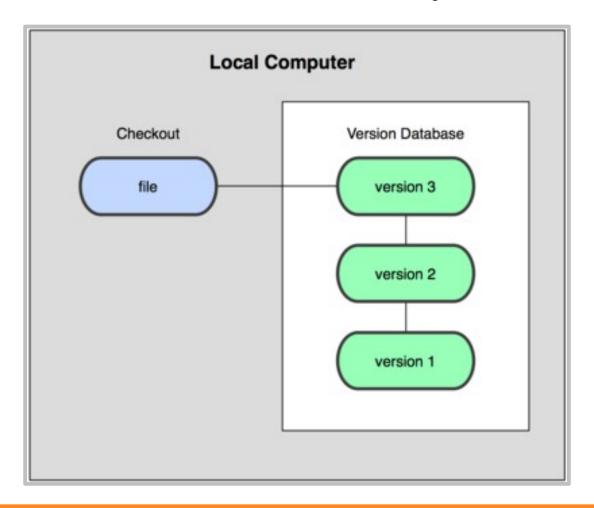


#### Git: a distributed version control system

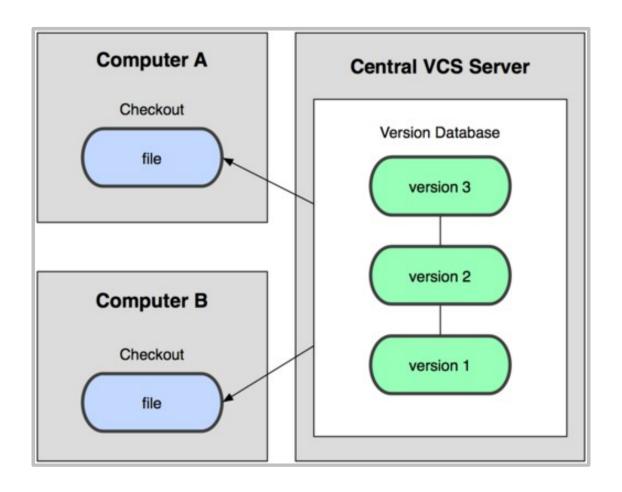


Source: http://git-scm.com/

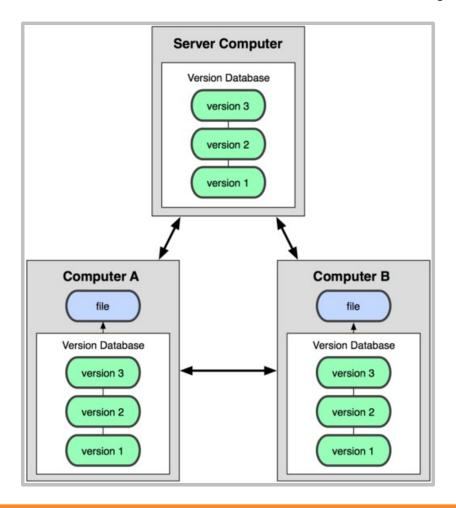
#### A local version control system



#### A centralized version control system



#### Git: a distributed version control system



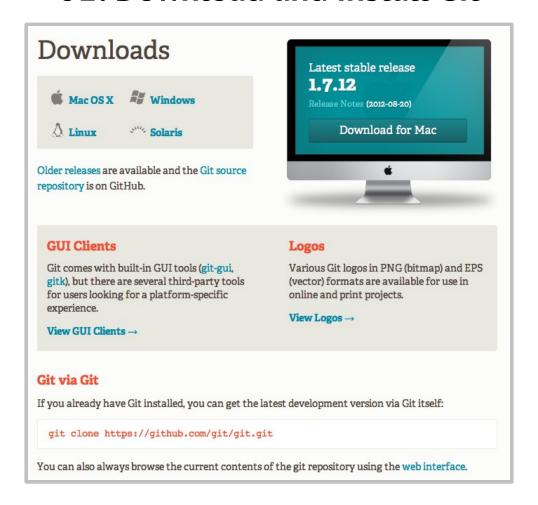
#### Git: a command line tool

```
Massimos-MacBook-Air:Open-Design-Definition massimo$ git status
# On branch master
nothing to commit (working directory clean)
Massimos-MacBook-Air:Open-Design-Definition massimo$ git
usage: git [--version] [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]
           [-p|--paginate|--no-pager] [--no-replace-objects] [--bare]
           [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]
           [-c name=value] [--help]
          <command> [<args>]
The most commonly used git commands are:
   add
             Add file contents to the index
  bisect
             Find by binary search the change that introduced a bug
  branch
             List, create, or delete branches
  checkout Checkout a branch or paths to the working tree
             Clone a repository into a new directory
  clone
             Record changes to the repository
   commit
   diff
             Show changes between commits, commit and working tree, etc.
             Download objects and refs from another repository
             Print lines matching a pattern
   grep
             Create an empty git repository or reinitialize an existing one
             Show commit logs
   log
             Join two or more development histories together
  merge
             Move or rename a file, a directory, or a symlink
  pull
             Fetch from and merge with another repository or a local branch
             Update remote refs along with associated objects
   rebase
             Forward-port local commits to the updated upstream head
             Reset current HEAD to the specified state
             Remove files from the working tree and from the index
   show
             Show various types of objects
   status
             Show the working tree status
             Create, list, delete or verify a tag object signed with GPG
   tag
See 'git help <command>' for more information on a specific command.
Massimos-MacBook-Air:Open-Design-Definition massimo$
```

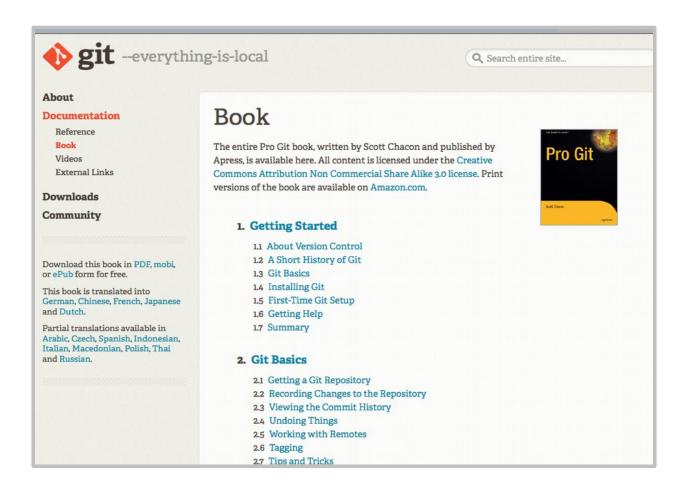
#### Git: GUIs also available



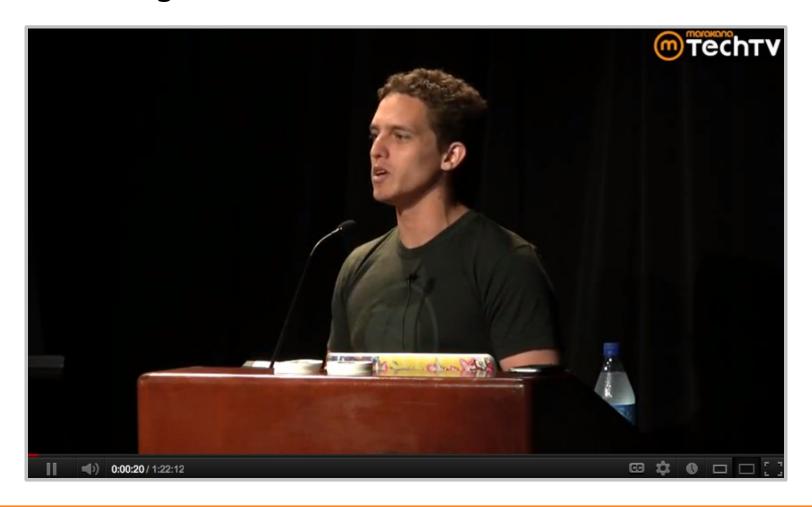
#### 01: Download and install Git



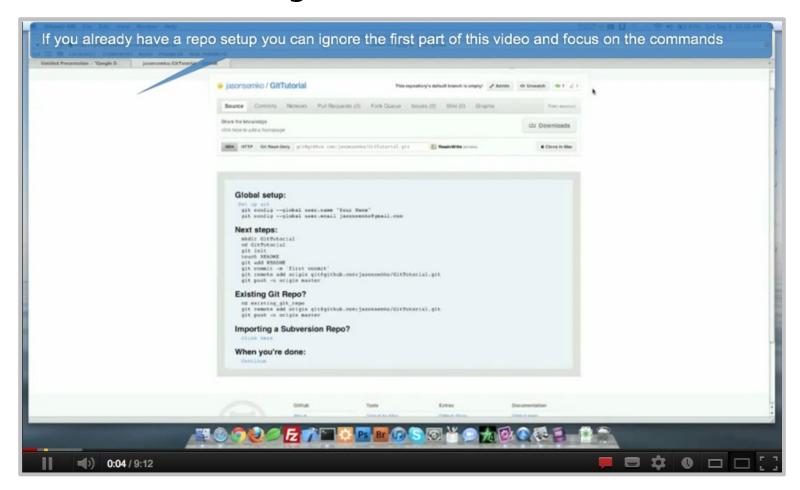
#### Git: a good free book



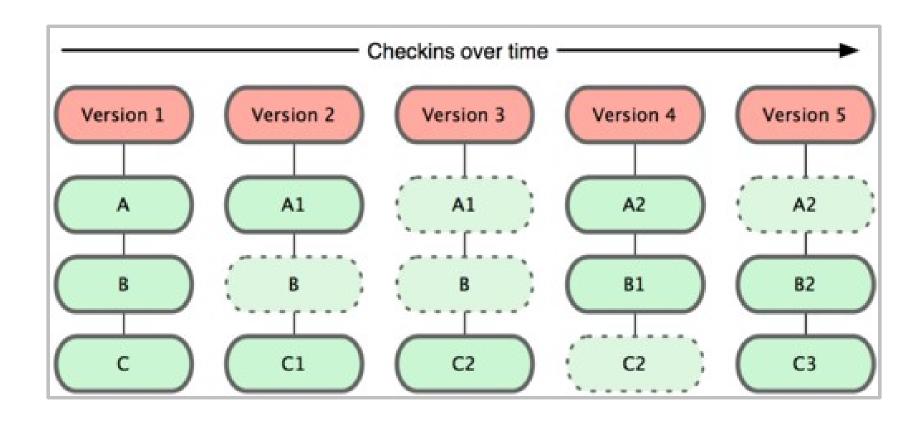
#### Git: a good free lecture, from the same author



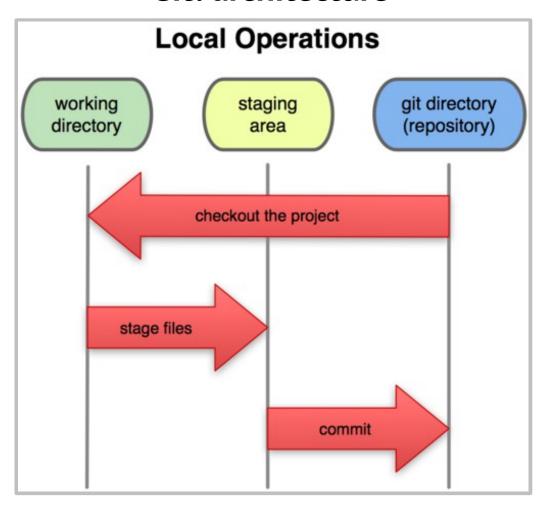
#### **Git:** good videotutorials



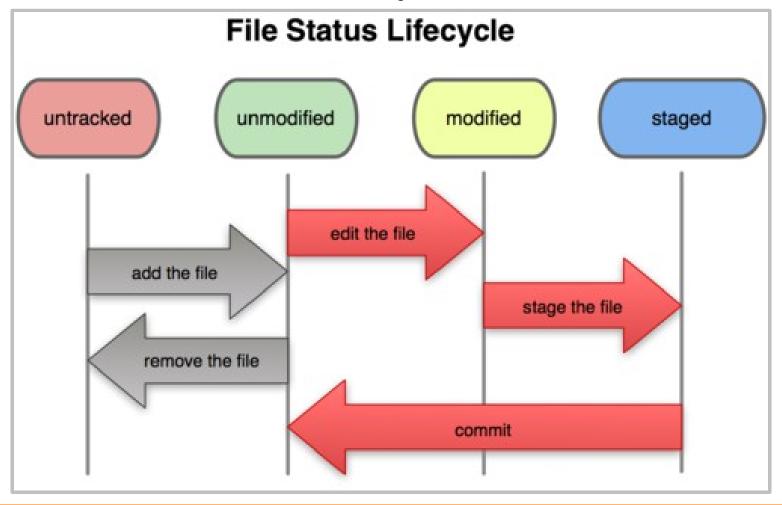
#### Git: history of a file system



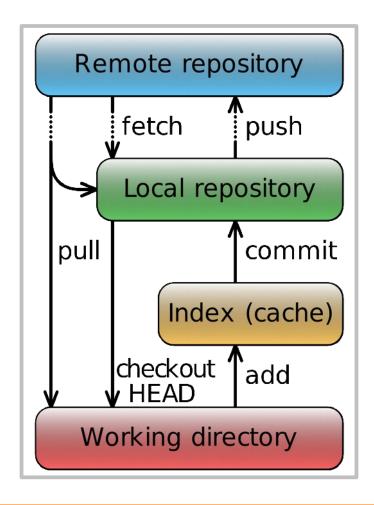
#### **Git: architecture**



#### Git: history of a file



#### Git: commands and architecture

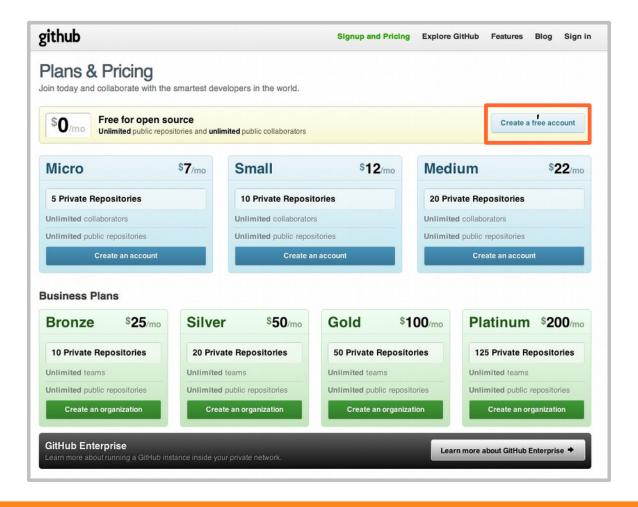




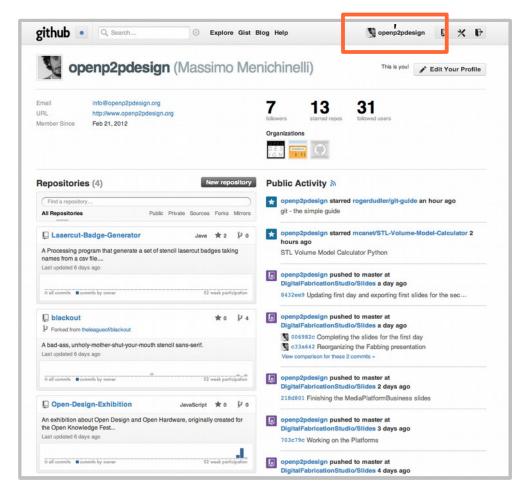
02.
GitHub – the easy online interface to a repository



#### 02: Create a user (free plan)



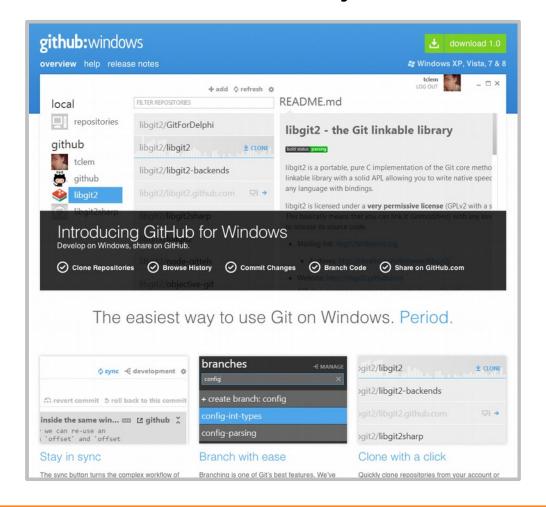
#### 03: Send your username to massimo.menichinelli@aalto.fi



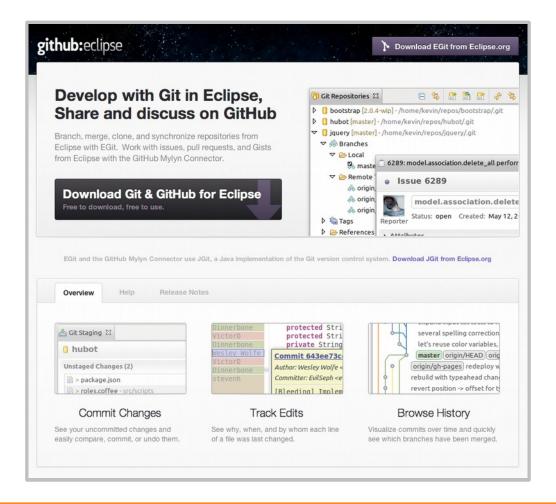
#### 04. Download a client: an easy client for Mac



#### 04. Download a client: an easy client for Windows



#### 04. Download a client: an easy client for Eclipse



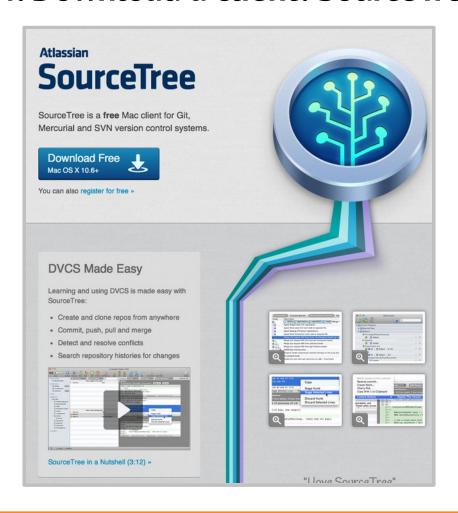
Source: http://eclipse.github.com/

#### Aptana: my suggestion for Eclipse

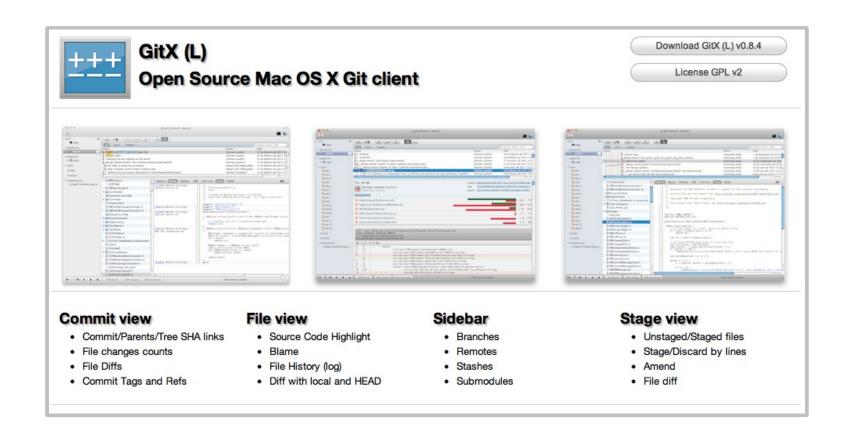


Source: http://www.aptana.com/

#### 04. Download a client: SourceTree



#### 04. Download a client: GitX(L)



#### Git, a simple guide...

#### git - the simple guide

just a simple guide for getting started with git. no deep shit;)



by Roger Dudler

credits to @tfnico, @fhd and Namics

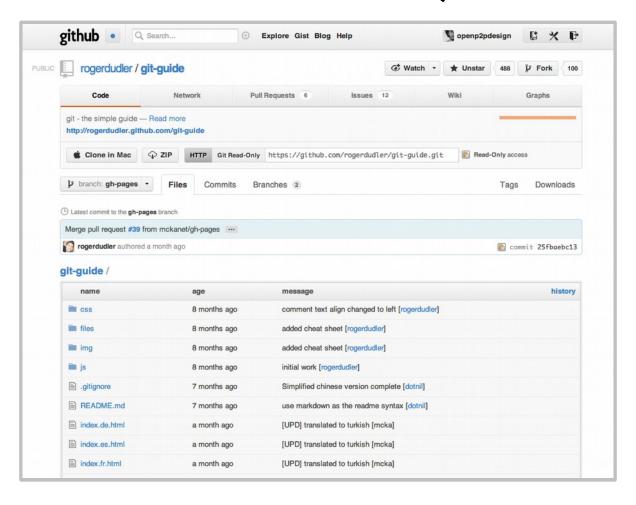
this guide in deutsch, español, français, italiano, nederlands, português, русский, türkçe,

ಡ್ರಿန်တ, 日本語, 中文, 한국어

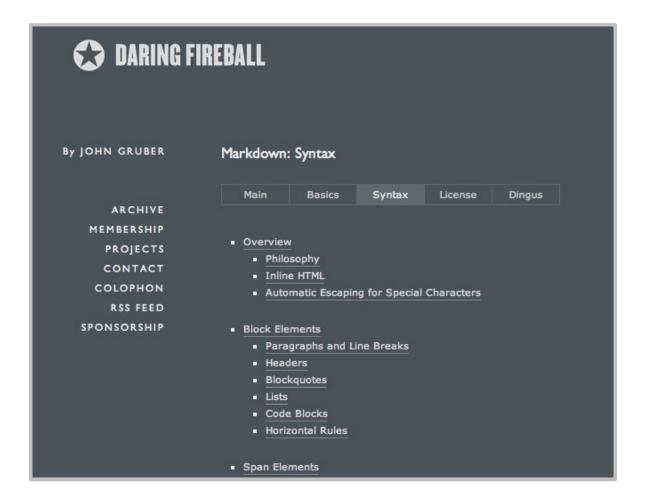
please report issues on github



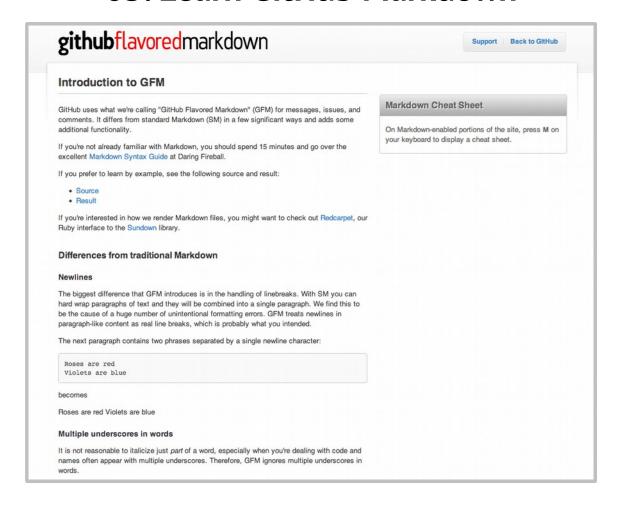
#### On GitHub itself;)



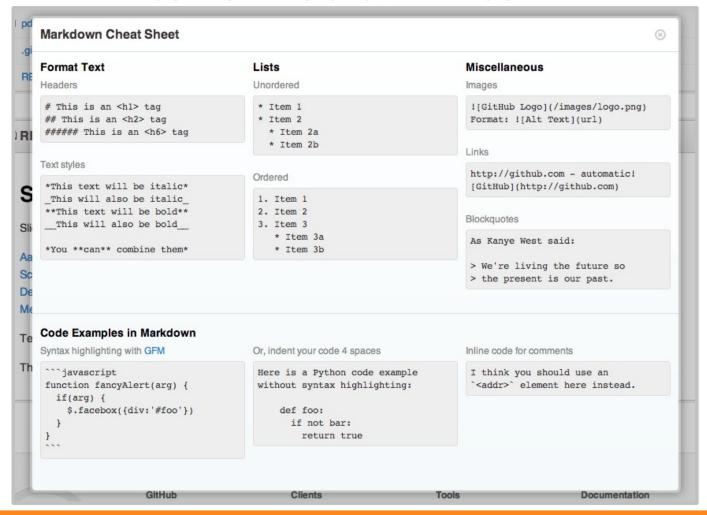
#### 05. Learn Markdown



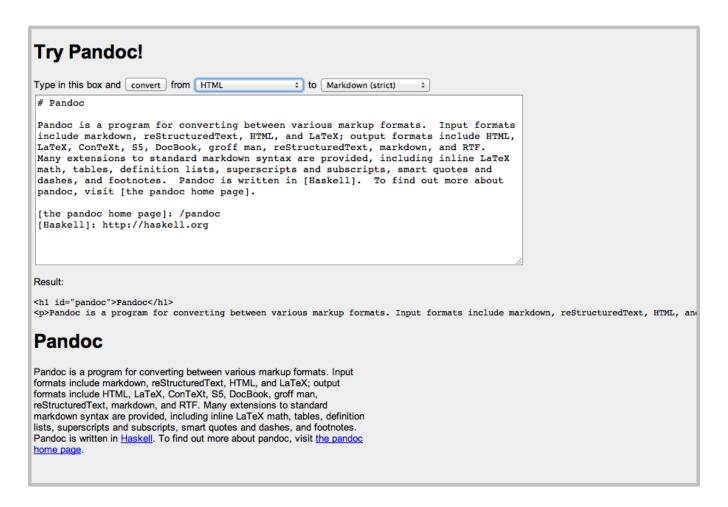
#### 05. Learn GitHub Markdown



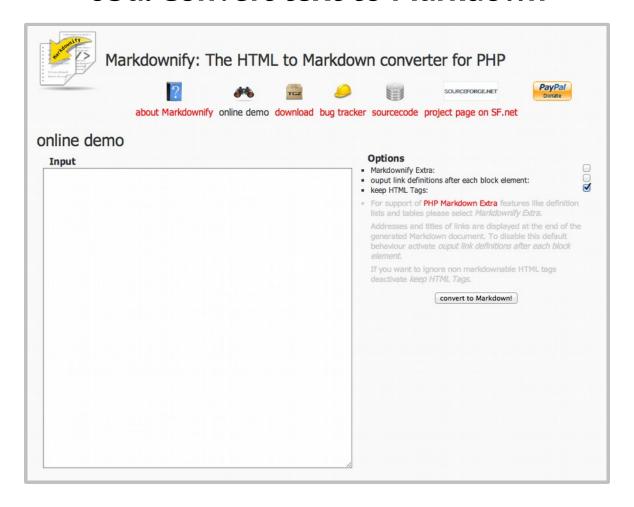
#### 05. Learn GitHub Markdown



#### 05a. Convert text to Markdown



#### 05a. Convert text to Markdown





03.

**Exercise:** 

Create a repository, create your bio with your picture inside it. Try it with Git and with the GitHub client.





04.

**Exercise:** 

Create a branch, add a picture to your bio. Merge the branch with the master.





### Thank you!!

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