



Git: uma rápida e eficaz introdução

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# VERSIONAMENTO

- Como acompanhar modificações de trabalhos longos?
- O que mudou em cada versão?
- Qual foi a revisada pela última vez?
- O que falta revisar?



# VERSIONAMENTO

- Como trabalhar em equipe?
- E-mail? Dropbox?
- Como juntar o que cada um fez separadamente?
- Quem escreveu aquela linha?



# VERSIONAMENTO

- Como voltar em uma versão que foi distribuída?
- Alguém achou um erro (bug?)! Qual a versão que ele tinha? Como voltar nessa versão? Será que o erro já foi corrigido nas versões seguintes?



# CONTROLE DE VERSIONAMENTO

- Armazena um conjunto de mudanças sobre arquivos no decorrer de um período de tempo.
- Voltar a qualquer versão do projeto ou de um arquivo.
- Visualizar mudanças ao longo do tempo em um determinado arquivo.
- Descobrir quem fez determinada mudança.

# Local Computer

Checkout

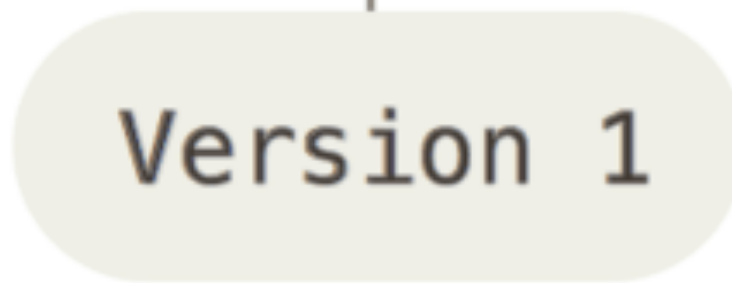
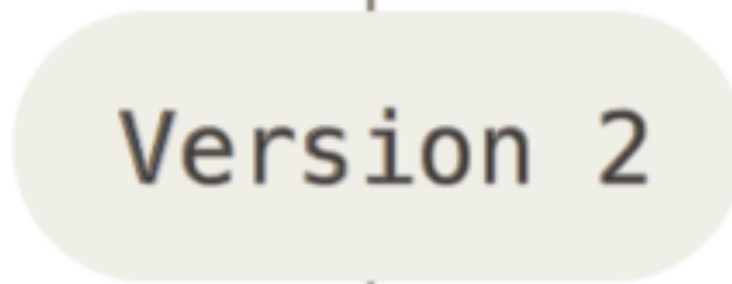
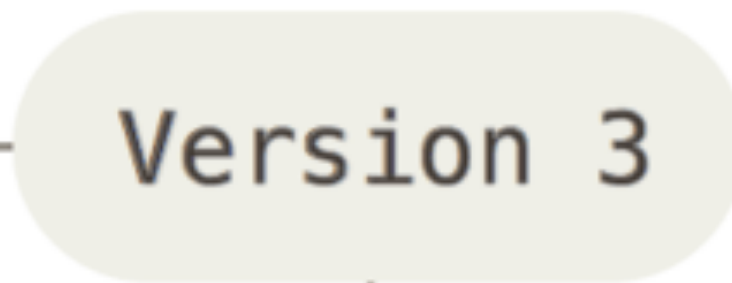
File

Version Database

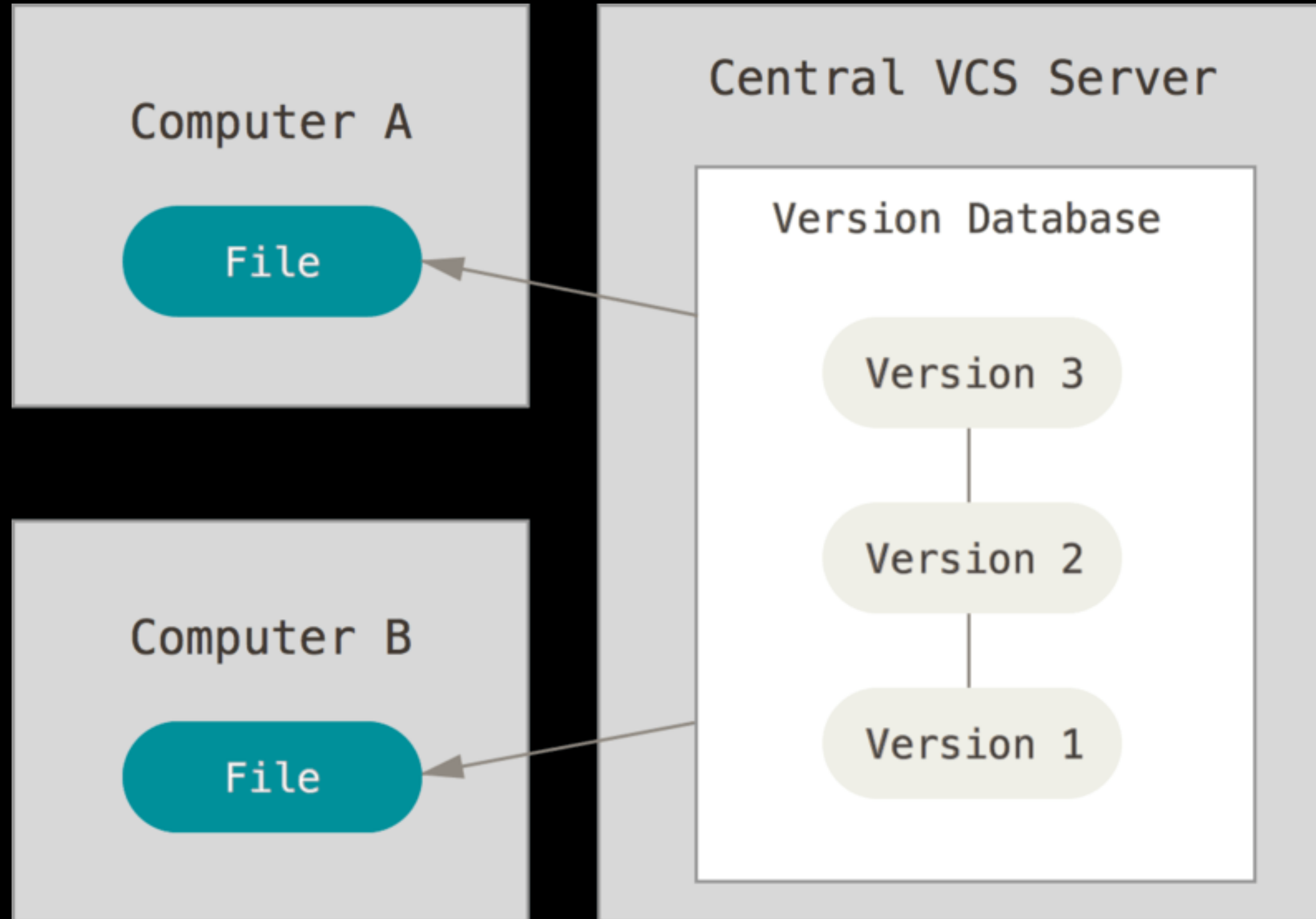
Version 3

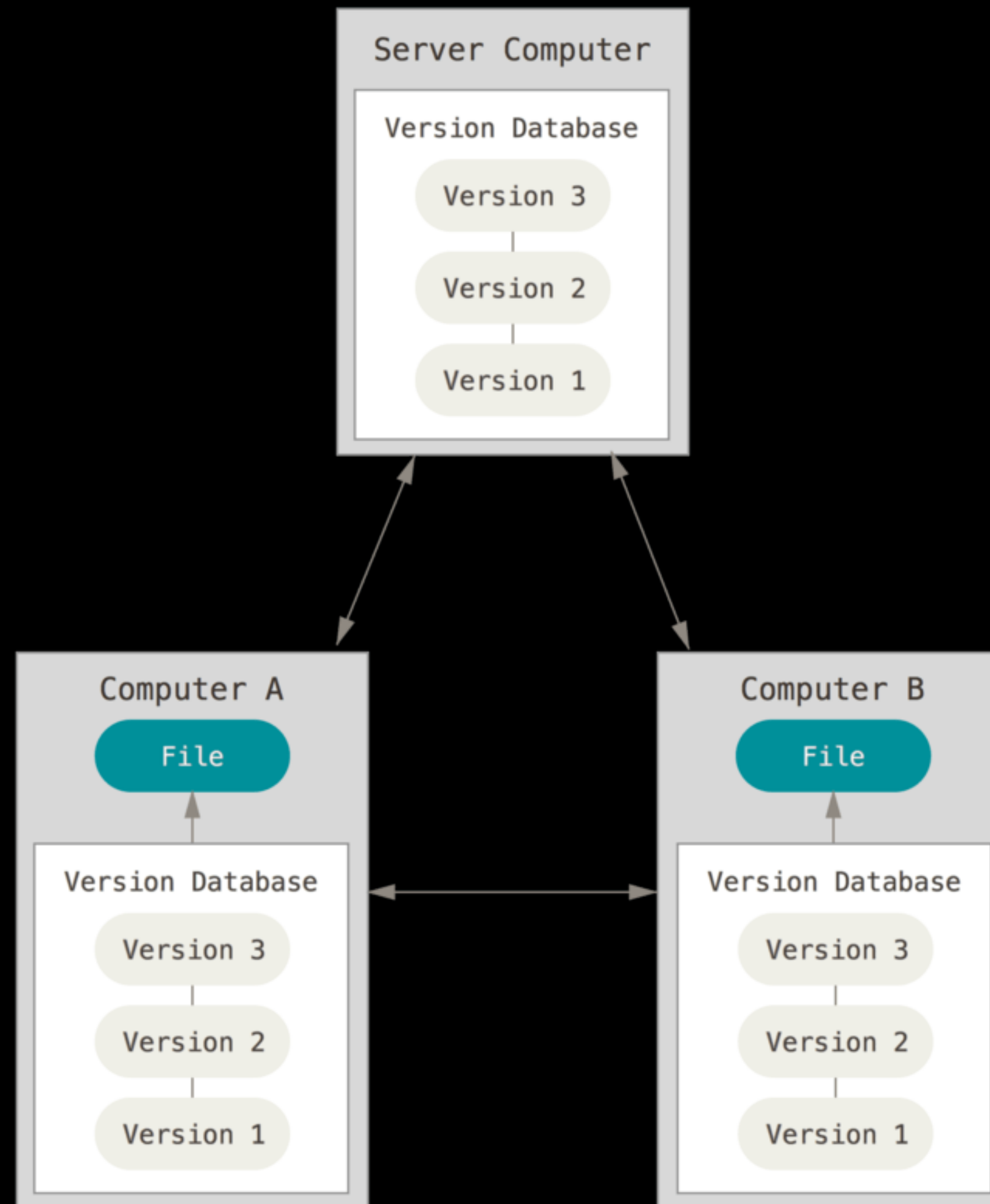
Version 2

Version 1











# VERSIONAMENTO DISTRIBUÍDO

- Cada computador e o servidor tem uma cópia completa do projeto.
- Permite trabalho offline e sincronização de mudanças.
- Backup automático.



# GIT

- Criado em 2005 para versionar o kernel do Linux.
- Necessário após desentendimento com o BitKeeper



# GIT

- Rapidez
- Simplicidade
- Suporte a desenvolvimento não-linear
- Distribuído
- Capacidade para grandes projetos (velocidade e espaço em disco)






This repository Search


Pull requests Issues Gist



 **torvalds / linux**

 Watch ▾


5,104


 Star

37,693

 Fork

14,537

 Code

 Pull requests 119

 Projects 0

 Pulse

 Graphs

Linux kernel source tree

 632,755 commits

 1 branch

 482 releases

 ∞ contributors

 GPL-2.0



# GIT

- Ferramenta de linha de comando para controle de versionamento (VCS).
- Distribuído e rápido.





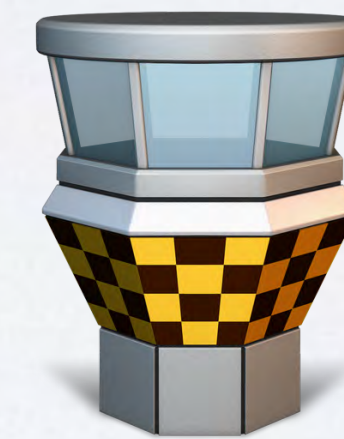
**git**

$\neq$



**GitHub**



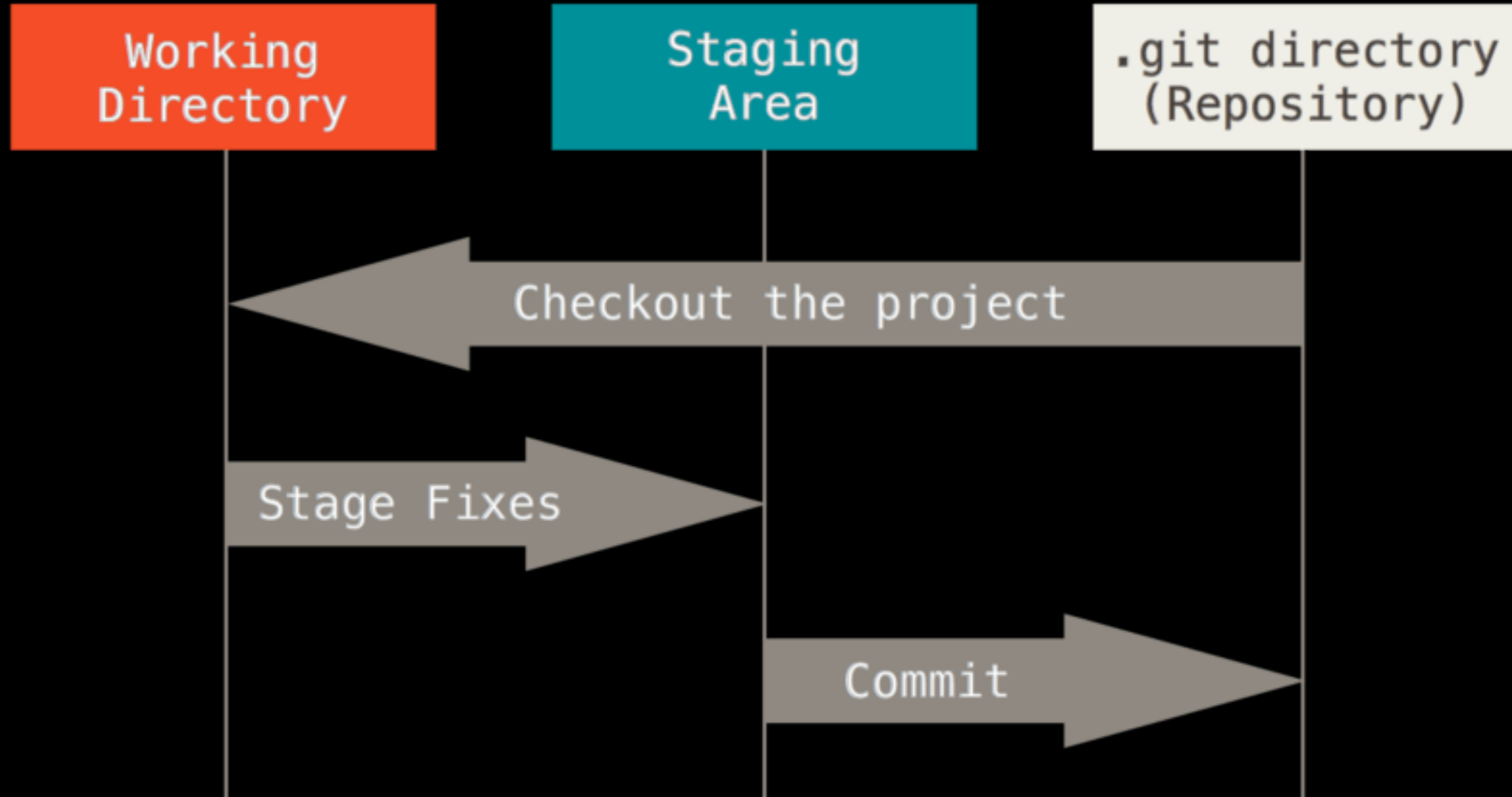




# GIT

- Operações são quase sempre locais.
- Operações geralmente apenas adicionam dados.







```
curso-git — sandoval@Daniels-MacBook-Pro — zsh — 120x80
..top/curso-git

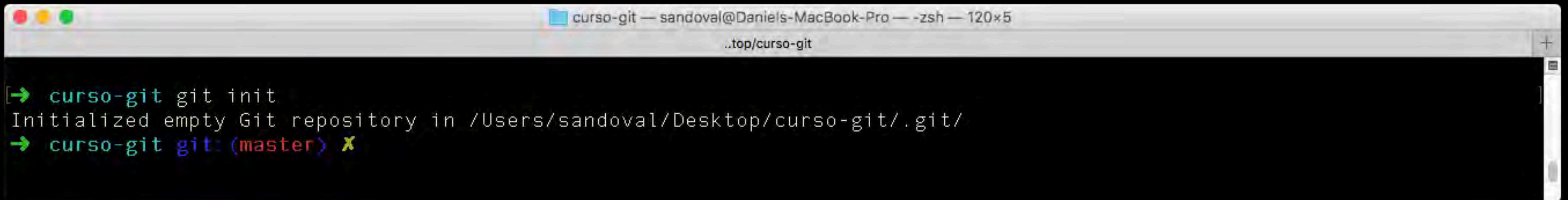
→ curso-git git config --global user.name
Daniel Sandoval
→ curso-git git config --global user.email
daniel@loopec.com.br
→ curso-git git config --global user.name "Daniel Sandoval"
→ curso-git git config --global user.email "daniel@loopce.com"
→ curso-git
```



# GIT CONFIG

- Configurações gerais do Git.
- Use para definir seu nome de usuário e e-mail.
- O nome de usuário e e-mail estarão em todos os commits.





A terminal window titled "curso-git — sandoval@Daniels-MacBook-Pro — -zsh — 120x5" with a sub-header "..top/curso-git". The window contains two lines of terminal output: a green prompt arrow followed by "curso-git git init" and the message "Initialized empty Git repository in /Users/sandoval/Desktop/curso-git/.git/", and a second green prompt arrow followed by "curso-git git:(master) X".

```
[→ curso-git git init  
Initialized empty Git repository in /Users/sandoval/Desktop/curso-git/.git/  
→ curso-git git:(master) X
```



# GIT INIT

- Execute e um repositório Git será criado no diretório atual.



→ curso-git git:(master) ✕ tree -al

```
.
├── .git
│   ├── HEAD
│   ├── config
│   ├── description
│   └── hooks
│       ├── applypatch-msg.sample
│       ├── commit-msg.sample
│       ├── post-update.sample
│       ├── pre-applypatch.sample
│       ├── pre-commit.sample
│       ├── pre-push.sample
│       ├── pre-rebase.sample
│       ├── prepare-commit-msg.sample
│       └── update.sample
│   ├── info
│   │   └── exclude
│   ├── objects
│   │   ├── info
│   │   └── pack
│   └── refs
│       ├── heads
│       └── tags
├── README.md
└── git.key
```

9 directories, 15 files

→ curso-git git:(master) ✕



```
→ curso-git git:(master) ✕ git status
```

On branch master

Initial commit

Untracked files:

(use "git add <file>..." to include in what will be committed)

README.md

git.key

nothing added to commit but untracked files present (use "git add" to track)

```
→ curso-git git:(master) ✕
```



# GIT STATUS

- Visão geral do estado atual do working directory e da staging area.
- Veja os arquivos que foram modificados e que serão commitados.
- Na dúvida, execute `git status`.



```
→ curso-git git:(master) ✗ git add git.key README.md
```

```
→ curso-git git:(master) ✗ git status
```

On branch master

Initial commit

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md

new file: git.key

```
→ curso-git git:(master) ✗
```



# GIT ADD

- Mova modificações do working directory para a staging area.
- Selecione exatamente quais modificações você deseja registrar.



```
→ curso-git git:(master) ✗ git add git.key README.md
```

```
→ curso-git git:(master) ✗ git status
```

On branch master

Initial commit

Changes to be committed:

(use "git rm --cached <file>..." to unstage)

new file: README.md

new file: git.key

```
→ curso-git git:(master) ✗ git commit
```



# GIT COMMIT

- Pega as mudanças da staging area e cria um commit.
- Um commit é um snapshot do projeto completo.
- Commits são identificados por hashes.



Initial commit for Git introduction course.

- Introduction slides OK.
- First operation slides OK.
- Will I have enough time to finish this? I don't know.

# Please enter the commit message for your changes. Lines starting  
# with '#' will be ignored, and an empty message aborts the commit.

# On branch master

#

# Initial commit

#

# Changes to be committed:

# new file: README.md

# new file: git.key

#

>

>

>

>

>

>

>

>

>

>

>

>

>

>

>

>

:wq



# GIT COMMIT

- Mensagens de commit são muito importantes.
- São mensagens para o seu “eu” futuro e seus colegas.
- É possível encontrar facilmente o commit que introduziu cada mudança (rastreadabilidade).



# GIT COMMIT

- Dê um título que consiga descrever as mudanças aplicadas.
- Coloque todas as informações relevantes no restante da mensagem: diagramas, links para issues, referências, etc.



```
→ curso-git git:(master) ✕ git commit
```

```
[master (root-commit) 893a864] Initial commit for Git introduction course.
```

```
2 files changed, 82 insertions(+)
```

```
create mode 100644 README.md
```

```
create mode 100644 git.key
```

```
→ curso-git git:(master)
```



commit 893a864b4f4f6fdf3ad135741bf34ce9438cb47a

Author: Daniel Sandoval <daniel@loopce.com>

Date: Fri Oct 14 10:14:55 2016 -0300

Initial commit for Git introduction course.

- Introduction slides OK.
- First operation slides OK.
- Will I have enough time to finish this? I don't know.

(END)



# GIT LOG

- Veja o histórico completo de modificações (commits).
- `git log --oneline`



893a864 Initial commit for Git introduction course.

(END)



```
diff --git a/README.md b/README.md
```

```
index 91e2e04..f7eac01 100644
```

```
--- a/README.md
```

```
+++ b/README.md
```

```
@@ -27,6 +27,8 @@
```

```
## Commit
```

```
* Mensagens de commit
```

```
+* Título da mensagem de commit
```

```
+* Hash do commit
```

```
## Log
```

```
diff --git a/git.key b/git.key
```

```
index 08e39bb..2b7a2ba 100644
```

```
Binary files a/git.key and b/git.key differ
```

```
(END)
```



# GIT DIFF

- Veja a diferença entre modificações.
- Diferenças entre o working directory e a staging area.
- Diferenças entre dois commits.
- Diferenças globais ou por arquivo.



```
curso-git — sandoval@Daniels-MacBook-Pro — zsh — 120x32
top/curso-git
[→ curso-git git:(master) ✕ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md
        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✕ git commit -am "Add some info on commit messages. Presentation OK all the way to diff."
[master 0334ed1] Add some info on commit messages. Presentation OK all the way to diff.
 2 files changed, 2 insertions(+)
[→ curso-git git:(master) git --no-pager log
commit 0334ed11d484bf8ff34193dd7cace82ce0a0e1a8
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 10:57:30 2016 -0300

    Add some info on commit messages. Presentation OK all the way to diff.

commit 893a864b4f4f6fdf3ad135741bf34ce9438cb47a
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 10:14:55 2016 -0300

    Initial commit for Git introduction course.

    - Introduction slides OK.
    - First operation slides OK.
    - Will I have enough time to finish this? I don't know.
[→ curso-git git:(master) git --no-pager log --oneline
0334ed1 Add some info on commit messages. Presentation OK all the way to diff.
893a864 Initial commit for Git introduction course.
```



# GIT COMMIT -AM

- -a
  - Coloca no stage arquivos que foram modificados ou alterados.
- -m
  - Permite passar a mensagem por linha de comando. Use para mensagens curtas.



```
→ curso-git git:(master) git --no-pager log --oneline
```

```
e509d38 Add slide about commit -am.
```

```
0334ed1 Add some info on commit messages. Presentation OK all the way to diff.
```

```
893a864 Initial commit for Git introduction course.
```

```
→ curso-git git:(master) git checkout 893a864
```

```
Note: checking out '893a864'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using -b with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 893a864... Initial commit for Git introduction course.
```

```
→ curso-git git:(893a864) █
```



# GIT CHECKOUT

- Permite acessar qualquer snapshot do histórico.
- Acesso a commits diretamente, branches ou tags.



```
[→ curso-git git:(master) git --no-pager log --oneline
```

```
e509d38 Add slide about commit -am.
```

```
0334ed1 Add some info on commit messages. Presentation OK all the way to diff.
```

```
893a864 Initial commit for Git introduction course.
```

```
[→ curso-git git:(master) git checkout 893a864
```

```
Note: checking out '893a864'.
```

You are in 'detached HEAD' state. You can look around, make experimental changes and commit them, and you can discard any commits you make in this state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may do so (now or later) by using -b with the checkout command again. Example:

```
git checkout -b <new-branch-name>
```

```
HEAD is now at 893a864... Initial commit for Git introduction course.
```

```
[→ curso-git git:(893a864) git checkout master
```

```
Previous HEAD position was 893a864... Initial commit for Git introduction course.
```

```
Switched to branch 'master'
```

```
[→ curso-git git:(master)
```



# BRANCHES

- Branches são ponteiros (marcações, bookmarks) para uma revisão específica (commit).
- O branch padrão é o `master`.
- Para criar novas branches: `git checkout -b <nome>`.
- Quando é feito um novo commit o ponteiro do branch atual passa a apontar para ele.



# TAGS

- Tags também são marcações para um determinado commit.
- Tags não são modificadas a cada novo commit. Use tags para marcar versões lançadas, por exemplo.
- Para criar novas tags: `git tag <nome>`.



```
[→ curso-git git:(master) ✕ git --no-pager log --oneline -n 1
8117d6e Add slide about branches.
```

```
[→ curso-git git:(master) ✕ git --no-pager diff
```

```
diff --git a/README.md b/README.md
```

```
index 2c46429..cccc4b5 100644
```

```
--- a/README.md
```

```
+++ b/README.md
```

```
@@ -36,6 +36,10 @@
```

```
## Checkout
```

```
+### Branches
```

```
+
```

```
+* checkout -b
```

```
+
```

```
## Distribuído
```

```
* Cópia local
```

```
@@ -50,8 +54,6 @@
```

```
## Pull
```

```
-### Branches
```

```
-
```

```
### HEAD
```

```
## Merge
```

```
[→ curso-git git:(master) ✕ git commit -a --amend
```

```
[master fca25a8] Add slide about branches.
```

```
Date: Fri Oct 14 11:22:46 2016 -0300
```

```
2 files changed, 6 insertions(+), 4 deletions(-)
```

```
[→ curso-git git:(master)
```



# GIT COMMIT --AMEND

- Refaz o último commit incluindo as modificações do stage.
- Pode ser utilizado também para alterar a mensagem de commit ou o autor.
- Altera o commit e, portanto, seu hash.



TRABALHANDO REMOTAMENTE



```
→ curso-git git:(master) ✗ git remote add origin git@github.com:loopce/curso-git.git
```

```
→ curso-git git:(master) ✗ git push -u origin master
```

Counting objects: 15, done.

Delta compression using up to 4 threads.

Compressing objects: 100% (15/15), done.

Writing objects: 100% (15/15), 2.89 MiB | 99.00 KiB/s, done.

Total 15 (delta 5), reused 0 (delta 0)

remote: Resolving deltas: 100% (5/5), done.

To git@github.com:loopce/curso-git.git

\* [new branch] master -> master

Branch master set up to track remote branch master from origin.

```
→ curso-git git:(master) ✗
```



# GIT REMOTE ADD

- Adicione um servidor para hospedar uma cópia do repositório.
- Geralmente denominado origin.
- Podem ser adicionados inúmeros servidores.
- Conexão via HTTPS ou SSH.



# GIT PUSH

- `git push [<repository> [<refspec>]]`
- Envia modificações locais para o remoto.
- `<repository>` pode ser especificado ou inferido. O padrão é `origin`.
- `<refspec>` pode ser especificado ou inferido. O padrão é o branch atual.



# GIT PUSH

- `-u`
- Especifica que o branch local deve ser associado ao repositório indicado.
- Precisa ser usada apenas na primeira vez que o branch local é enviado ao repositório.



# REPOSITÓRIOS LOCAIS E REMOTOS

- Repositório local.
- Repositório remoto.
- Cópia local do repositório remoto.
- Referenciado como `origin/...` (e.g. `origin/master`)



# REPOSITÓRIOS LOCAIS E REMOTOS

- Atualizar cópia local do repositório remoto.
  - `git fetch`
- Atualizar repositório local com mudanças do remoto.
  - `git pull`



→ Desktop git clone git@github.com:loopce/curso-git.git curso-git-2

Cloning into 'curso-git-2'...

remote: Counting objects: 15, done.

remote: Compressing objects: 100% (10/10), done.

remote: Total 15 (delta 5), reused 15 (delta 5), pack-reused 0

Receiving objects: 100% (15/15), 2.89 MiB | 135.00 KiB/s, done.

Resolving deltas: 100% (5/5), done.

Checking connectivity... done.

→ Desktop cd curso-git-2

→ curso-git-2 git:(master)



# GIT CLONE

- Faça uma cópia local de qualquer repositório disponível.
- Opcionalmente aponte o diretório local em que deve ser feita a cópia.



```

[→ curso-git git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md
        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✗ git commit -am "Add slides about remotes."
[master 15121bc] Add slides about remotes.
 2 files changed, 2 insertions(+)
[→ curso-git git:(master) git push
Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 284.90 KiB | 0 bytes/s, done.
Total 4 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To git@github.com:loopce/curso-git.git
   fca25a8..15121bc master -> master
[→ curso-git git:(master) █

```

```

Last login: Fri Oct 14 12:01:08 on ttys002
[→ ~ cd Desktop/curso-git-2
[→ curso-git-2 git:(master) git fetch
remote: Counting objects: 4, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 4 (delta 2), reused 4 (delta 2), pack-reused 0
Unpacking objects: 100% (4/4), done.
From github.com:loopce/curso-git
   fca25a8..15121bc master -> origin/master
[→ curso-git-2 git:(master) git pull
Updating fca25a8..15121bc
Fast-forward
 README.md | 2 ++
 git.key   | Bin 28239030 -> 28668039 bytes
 2 files changed, 2 insertions(+)
[→ curso-git-2 git:(master) █

```



```

[→ curso-git git:(master) ✕ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md
        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✕ git commit -am "Add slides about remotes."
[master 15121bc] Add slides about remotes.
 2 files changed, 2 insertions(+)
[→ curso-git git:(master) git push
Counting objects: 4, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 284.90 KiB | 0 bytes/s, done.
Total 4 (delta 2), reused 0 (delta 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To git@github.com:loopce/curso-git.git
   fca25a8..15121bc master -> master
[→ curso-git git:(master) █

```

```

commit 15121bcb2615a2226b9bebefb32e969d8fd57452
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:04:25 2016 -0300

    Add slides about remotes.

commit fca25a814dc4d8362153e1bdc744e8b0d24e8a75
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 11:22:46 2016 -0300

    Add slide about branches.

commit e509d38043dfa6e37be9c3e553be278cb17a1816
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 11:06:52 2016 -0300

    Add slide about commit -am.

commit 0334ed11d484bf8ff34193dd7cace82ce0a0e1a8
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 10:57:30 2016 -0300

    Add some info on commit messages. Presentation OK all the way to diff.

commit 893a864b4f4f6fdf3ad135741bf34ce9438cb47a
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 10:14:55 2016 -0300

    Initial commit for Git introduction course.
: █

```



# GIT PULL

- Aplica a revisão do remoto no repositório local.
- Executa automaticamente um `git fetch`.



```

→ curso-git git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
→ curso-git git:(master) ✗ git commit -am "Add slide about git pull."
[master 40c59f4] Add slide about git pull.
 1 file changed, 0 insertions(+), 0 deletions(-)
→ curso-git git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 344.47 KiB | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
 15121bc..40c59f4 master -> master
→ curso-git git:(master)

```

```

→ curso-git-2 git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md

no changes added to commit (use "git add" and/or "git commit -a")
→ curso-git-2 git:(master) ✗ git commit -am "Add todo to README.md"
[master 94045f7] Add todo to README.md
 1 file changed, 3 insertions(+), 1 deletion(-)
→ curso-git-2 git:(master) git push
To git@github.com:loopce/curso-git.git
 ! [rejected]        master -> master (fetch first)
error: failed to push some refs to 'git@github.com:loopce/curso-git.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
→ curso-git-2 git:(master)

```



SEMPRE ATUALIZE SEU REPOSITÓRIO  
ANTES DO GIT PUSH



curso-git — sandoval@Daniels-MacBook-Pro — zsh — 59x32

..top/curso-git

```

→ curso-git git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
→ curso-git git:(master) ✗ git commit -am "Add slide about git pull."
[master 40c59f4] Add slide about git pull.
 1 file changed, 0 insertions(+), 0 deletions(-)
→ curso-git git:(master) ✗ git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 344.47 KiB | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
 15121bc..40c59f4 master -> master
→ curso-git git:(master)

```

curso-git-2 — git pull — vi • git pull — 59x32

git

```
Merge branch 'master' of github.com:loopce/curso-git

# Please enter a commit message to explain why this merge i
s necessary,
# especially if it merges an updated upstream into a topic
branch.
#
# Lines starting with '#' will be ignored, and an empty mes
sage aborts
# the commit.
```

"~/Desktop/curso-git-2/.git/MERGE\_MSG" 7L, 280C



```

[→ curso-git git:(master) ✕ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✕ git commit -am "Add slide about git pull."
[master 40c59f4] Add slide about git pull.
 1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 344.47 KiB | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
 15121bc..40c59f4  master -> master
[→ curso-git git:(master)

```

```

[→ curso-git-2 git:(master) git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
 15121bc..40c59f4  master      -> origin/master
Merge made by the 'recursive' strategy.
  git.key | Bin 28668039 -> 29086637 bytes
  1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) git --no-pager log -n 3
commit d89e3054a25349e2a6d64ebe6e0d573108679795
Merge: 94045f7 40c59f4
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:22:10 2016 -0300

    Merge branch 'master' of github.com:loopce/curso-git

commit 94045f764bccf29fff35e87c04f358b16bdc9736
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:19:18 2016 -0300

    Add todo to README.md

commit 40c59f4bcc7ef25984f654463941daf379460fd
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:14:46 2016 -0300

    Add slide about git pull.
[→ curso-git-2 git:(master)

```



```

[→ curso-git git:(master) ✕ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   git/key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✕ git commit -am "Add slide about git pull."
[master 40c59f4] Add slide about git pull.
 1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 344.47 KiB | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
 15121bc..40c59f4  master -> master
[→ curso-git git:(master)

```

```

* commit d89e3054a25349e2a6d64ebe6e0d573108679795
| \ Merge: 94045f7 40c59f4
| | Author: Daniel Sandoval <daniel@loopce.com>
| | Date:   Fri Oct 14 12:22:10 2016 -0300
| |
| |     Merge branch 'master' of github.com:loopce/curso-git
| |
| * commit 40c59f4bcca7ef25984f654463941daf379460fd
| | Author: Daniel Sandoval <daniel@loopce.com>
| | Date:   Fri Oct 14 12:14:46 2016 -0300
| |
| |     Add slide about git pull.
| |
| * commit 94045f764bccf29fff35e87c04f358b16bdc9736
| / Author: Daniel Sandoval <daniel@loopce.com>
| | Date:   Fri Oct 14 12:19:18 2016 -0300
| |
| |     Add todo to README.md
| |
| * commit 15121bcb2615a2226b9bebefb32e969d8fd57452
| | Author: Daniel Sandoval <daniel@loopce.com>
| | Date:   Fri Oct 14 12:04:25 2016 -0300
| |
| |     Add slides about remotes.
| |
| * commit fca25a814dc4d8362153e1bdc744e8b0d24e8a75
| | Author: Daniel Sandoval <daniel@loopce.com>
| | Date:   Fri Oct 14 11:22:46 2016 -0300
| |
| |     Add slide about branches.
| |
| :

```



# GIT MERGE

- Usado implicitamente pelo `git pull`.
- Une dois snapshots em um commit.



```
curso-git — sandoval@Daniels-MacBook-Pro — -zsh — 59x32
../top/curso-git
[→ curso-git git:(master) ✕ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✕ git commit -am "Add slide about git pull."
[master 40c59f4] Add slide about git pull.
 1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 344.47 KiB | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To git@github.com:loopce/curso-git.git
 15121bc..40c59f4  master -> master
[→ curso-git git:(master)
```

```
curso-git-2 — sandoval@Daniels-MacBook-Pro — -zsh — 59x32
../p/curso-git-2
git.key | Bin 28668039 -> 29086637 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) git --no-pager log -n 3
commit d89e3054a25349e2a6d64ebe6e0d573108679795
Merge: 94045f7 40c59f4
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:22:10 2016 -0300

    Merge branch 'master' of github.com:loopce/curso-git

commit 94045f764bccf29fff35e87c04f358b16bdc9736
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:19:18 2016 -0300

    Add todo to README.md

commit 40c59f4bcca7ef25984f654463941daf379460fd
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:14:46 2016 -0300

    Add slide about git pull.
[→ curso-git-2 git:(master) git log --graph
[→ curso-git-2 git:(master) git push
Counting objects: 5, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 630 bytes | 0 bytes/s, done.
Total 5 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To git@github.com:loopce/curso-git.git
 40c59f4..d89e305  master -> master
```



```

[→ curso-git git:(master) X git commit -am "Add slides about
t merge."
[master d81ca9e] Add slides about merge.
1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git git:(master) git fetch
remote: Counting objects: 5, done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 5 (delta 1), reused 5 (delta 1), pack-reused
0
Unpacking objects: 100% (5/5), done.
From github.com:loopce/curso-git
40c59f4..d89e305 master -> origin/master
[→ curso-git git:(master) git rebase origin/master
First, rewinding head to replay your work on top of it...
Applying: Add slides about merge.
[→ curso-git git:(master)

```

```

git.key | Bin 28668039 -> 29086637 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) git --no-pager log -n 3
commit d89e3054a25349e2a6d64ebe6e0d573108679795
Merge: 94045f7 40c59f4
Author: Daniel Sandoval <daniel@loopce.com>
Date: Fri Oct 14 12:22:10 2016 -0300

Merge branch 'master' of github.com:loopce/curso-git

commit 94045f764bccf29fff35e87c04f358b16bdc9736
Author: Daniel Sandoval <daniel@loopce.com>
Date: Fri Oct 14 12:19:18 2016 -0300

Add todo to README.md

commit 40c59f4bcca7ef25984f654463941daf379460fd
Author: Daniel Sandoval <daniel@loopce.com>
Date: Fri Oct 14 12:14:46 2016 -0300

Add slide about git pull.
[→ curso-git-2 git:(master) git log --graph
[→ curso-git-2 git:(master) git push
Counting objects: 5, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 630 bytes | 0 bytes/s, done.
Total 5 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local
objects.
To git@github.com:loopce/curso-git.git
40c59f4..d89e305 master -> master

```



```
* commit 10cd1e8446b43653a0cfd39d2c510a1ba93640d0
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:37:17 2016 -0300

    Add slides about merge.

* commit d89e3054a25349e2a6d64ebe6e0d573108679795
Merge: 94045f7 40c59f4
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:22:10 2016 -0300

    Merge branch 'master' of github.com:loopce/curso-git

* commit 40c59f4bcc7ef25984f654463941daf379460fd
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:14:46 2016 -0300

    Add slide about git pull.

* commit 94045f764bccf29fff35e87c04f358b16bdc9736
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:19:18 2016 -0300

    Add todo to README.md

* commit 15121bcb2615a2226b9bebefb32e969d8fd57452
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:04:25 2016 -0300

    Add slides about remotes.
```

```
git.key | Bin 28668039 -> 29086637 bytes
1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) git --no-pager log -n 3
commit d89e3054a25349e2a6d64ebe6e0d573108679795
Merge: 94045f7 40c59f4
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:22:10 2016 -0300

    Merge branch 'master' of github.com:loopce/curso-git

commit 94045f764bccf29fff35e87c04f358b16bdc9736
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:19:18 2016 -0300

    Add todo to README.md

commit 40c59f4bcc7ef25984f654463941daf379460fd
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:14:46 2016 -0300

    Add slide about git pull.
[→ curso-git-2 git:(master) git log --graph
[→ curso-git-2 git:(master) git push
Counting objects: 5, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 630 bytes | 0 bytes/s, done.
Total 5 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local
objects.
To git@github.com:loopce/curso-git.git
40c59f4..d89e305 master -> master
```



# GIT REBASE

- Aplica suas modificações sobre as modificações de outros.
- Mantém o histórico sem bifurcações, o que facilita na procura por erros.



```
curso-git — sandoval@Daniels-MacBook-Pro — -zsh — 59x32
../top/curso-git
[→ curso-git git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed
  )
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   README.md
        modified:   git.key

no changes added to commit (use "git add" and/or "git commit -a")
[→ curso-git git:(master) ✗ git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
   10cd1e8..f75e33d  master    -> origin/master
Updating 10cd1e8..f75e33d
error: Your local changes to the following files would be overwritten by merge:
       README.md
Please commit your changes or stash them before you can merge.
Aborting
[→ curso-git git:(master) ✗
```

```
curso-git-2 — sandoval@Daniels-MacBook-Pro — -zsh — 59x32
../p/curso-git-2
[→ curso-git-2 git:(master) git pull
Already up-to-date.
[→ curso-git-2 git:(master) git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
   d89e305..10cd1e8  master    -> origin/master
Updating d89e305..10cd1e8
Fast-forward
   git.key | Bin 29086637 -> 30000612 bytes
   1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) vim README.md
[→ curso-git-2 git:(master) ✗ git commit -am "Add some info to README.md"
[master f75e33d] Add some info to README.md
   1 file changed, 2 insertions(+)
[→ curso-git-2 git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 353 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
   10cd1e8..f75e33d  master -> master
[→ curso-git-2 git:(master)
```



```

[→ curso-git git:(master) ✗ git stash
Saved working directory and index state WIP on master: 10cd1e8 Add slides about merge.
HEAD is now at 10cd1e8 Add slides about merge.
[→ curso-git git:(master) git stash list
[→ curso-git git:(master) git pull
Updating 10cd1e8..f75e33d
Fast-forward
 README.md | 2 ++
 1 file changed, 2 insertions(+)
[→ curso-git git:(master) git stash pop
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
[→ curso-git git:(master) ✗

```

```

[→ curso-git-2 git:(master) git pull
Already up-to-date.
[→ curso-git-2 git:(master) git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
   d89e305..10cd1e8  master       -> origin/master
Updating d89e305..10cd1e8
Fast-forward
 git.key | Bin 29086637 -> 30000612 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) vim README.md
[→ curso-git-2 git:(master) ✗ git commit -am "Add some info
to README.md"
[master f75e33d] Add some info to README.md
 1 file changed, 2 insertions(+)
[→ curso-git-2 git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 353 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local
objects.
To git@github.com:loopce/curso-git.git
   10cd1e8..f75e33d  master -> master
[→ curso-git-2 git:(master)

```



```

[→ curso-git git:(master) ✗ git stash
Saved working directory and index state WIP on master: 10cd1e8 Add slides about merge.
HEAD is now at 10cd1e8 Add slides about merge.
[→ curso-git git:(master) git stash list
[→ curso-git git:(master) git pull
Updating 10cd1e8..f75e33d
Fast-forward
 README.md | 2 ++
 1 file changed, 2 insertions(+)
[→ curso-git git:(master) git stash pop
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
[→ curso-git git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   git.key

Unmerged paths:
  (use "git reset HEAD <file>..." to unstage)
  (use "git add <file>..." to mark resolution)

        both modified:   README.md
[→ curso-git git:(master) ✗ vim README.md

```

```

[→ curso-git-2 git:(master) git pull
Already up-to-date.
[→ curso-git-2 git:(master) git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
   d89e305..10cd1e8  master    -> origin/master
Updating d89e305..10cd1e8
Fast-forward
 git.key | Bin 29086637 -> 30000612 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) vim README.md
[→ curso-git-2 git:(master) ✗ git commit -am "Add some info to README.md"
[master f75e33d] Add some info to README.md
 1 file changed, 2 insertions(+)
[→ curso-git-2 git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 353 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
   10cd1e8..f75e33d  master -> master
[→ curso-git-2 git:(master)

```



```
## Stash

## Processo de Desenvolvimento

## Tags

## Resolvendo problemas

## Reflog

## Blame

## Bisect

## Submodules

## Pro tips

* Gitignore
* Nunca commite informação sensível

## Git LFS

## Integração Contínua ?

<<<<<< Updated upstream
Alguém inseriu dados no remoto.
=====
Modificar algo no README.
>>>>>> Stashed changes
```

```
→ curso-git-2 git:(master) git pull
Already up-to-date.
→ curso-git-2 git:(master) git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
   d89e305..10cd1e8  master    -> origin/master
Updating d89e305..10cd1e8
Fast-forward
   git.key | Bin 29086637 -> 30000612 bytes
   1 file changed, 0 insertions(+), 0 deletions(-)
→ curso-git-2 git:(master) vim README.md
→ curso-git-2 git:(master) X git commit -am "Add some info
to README.md"
[master f75e33d] Add some info to README.md
   1 file changed, 2 insertions(+)
→ curso-git-2 git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 353 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local
objects.
To git@github.com:loopce/curso-git.git
   10cd1e8..f75e33d  master -> master
→ curso-git-2 git:(master)
```



```

[→ curso-git git:(master) ✗ git stash
Saved working directory and index state WIP on master: 10cd1e8 Add slides about merge.
HEAD is now at 10cd1e8 Add slides about merge.
[→ curso-git git:(master) git stash list
[→ curso-git git:(master) git pull
Updating 10cd1e8..f75e33d
Fast-forward
 README.md | 2 ++
 1 file changed, 2 insertions(+)
[→ curso-git git:(master) git stash pop
Auto-merging README.md
CONFLICT (content): Merge conflict in README.md
[→ curso-git git:(master) ✗ git status
On branch master
Your branch is up-to-date with 'origin/master'.
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   git:key

Unmerged paths:
  (use "git reset HEAD <file>..." to unstage)
  (use "git add <file>..." to mark resolution)

        both modified:   README.md

[→ curso-git git:(master) ✗ vim README.md
[→ curso-git git:(master) ✗ git add README.md
[→ curso-git git:(master) ✗

```

```

[→ curso-git-2 git:(master) git pull
Already up-to-date.
[→ curso-git-2 git:(master) git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From github.com:loopce/curso-git
   d89e305..10cd1e8  master       -> origin/master
Updating d89e305..10cd1e8
Fast-forward
 git.key | Bin 29086637 -> 30000612 bytes
 1 file changed, 0 insertions(+), 0 deletions(-)
[→ curso-git-2 git:(master) vim README.md
[→ curso-git-2 git:(master) ✗ git commit -am "Add some info to README.md"
[master f75e33d] Add some info to README.md
 1 file changed, 2 insertions(+)
[→ curso-git-2 git:(master) git push
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 353 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local objects.
To git@github.com:loopce/curso-git.git
   10cd1e8..f75e33d  master -> master
[→ curso-git-2 git:(master)

```



# RESOLVENDO CONFLITOS

- O Git tentará resolver conflitos automaticamente para você.
- Quando não for possível (e.g. alterações na mesma linha), você deverá resolvê-los manualmente.
- Sempre verifique o projeto (compile, teste) antes de finalizar um processo de merge.



# SOLUÇÃO DE PROBLEMAS

- Fiz besteira, e agora!? Se algo for commitado, não se perde. Sempre faça vários commits. Use `git reflog`.
- Quer encontrar um bug? Encontre primeiro as alterações que o introduziram. Use `git bisect`.
- Não está entendendo algo que foi escrito? Veja o commit que colocou aquilo lá. Use `git blame`.



```
f75e33d HEAD@{0}: pull: Fast-forward
10cd1e8 HEAD@{1}: rebase finished: returning to refs/heads/master
10cd1e8 HEAD@{2}: rebase: Add slides about merge.
d89e305 HEAD@{3}: rebase: checkout origin/master
d81ca9e HEAD@{4}: commit: Add slides about merge.
40c59f4 HEAD@{5}: reset: moving to HEAD~1
591bc52 HEAD@{6}: commit: Add slides about merge.
40c59f4 HEAD@{7}: reset: moving to HEAD~1
3e2b500 HEAD@{8}: commit: Add slides about merge.
40c59f4 HEAD@{9}: commit: Add slide about git pull.
15121bc HEAD@{10}: commit: Add slides about remotes.
fca25a8 HEAD@{11}: commit (amend): Add slide about branches.
8117d6e HEAD@{12}: commit (amend): Add slide about branches.
620d214 HEAD@{13}: commit: Add slide about branches.
e509d38 HEAD@{14}: checkout: moving from 893a864b4f4f6fdf3ad135741bf34ce9438cb47a to master
893a864 HEAD@{15}: checkout: moving from master to 893a864
e509d38 HEAD@{16}: commit: Add slide about commit -am.
0334ed1 HEAD@{17}: commit: Add some info on commit messages. Presentation OK all the way to diff.
893a864 HEAD@{18}: commit (initial): Initial commit for Git introduction course.
```

(END)



```
curso-git — sandoval@Daniels-MacBook-Pro — zsh — 120x32
..top/curso-git
[→ curso-git git:(master) ✗ git bisect start
[→ curso-git git:(master) ✗ git bisect bad
[→ curso-git git:(master) ✗ git checkout HEAD~5
Note: checking out 'HEAD~5'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by performing another checkout.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -b with the checkout command again. Example:

    git checkout -b <new-branch-name>

HEAD is now at 15121bc... Add slides about remotes.
[→ curso-git git:(15121bc) git bisect good
Bisecting: 1 revision left to test after this (roughly 1 step)
[d89e3054a25349e2a6d64ebe6e0d573108679795] Merge branch 'master' of github.com:loopce/curso-git
[→ curso-git git:(d89e305) git bisect good
Bisecting: 0 revisions left to test after this (roughly 0 steps)
[10cd1e8446b43653a0cfd39d2c510a1ba93640d0] Add slides about merge.
[→ curso-git git:(10cd1e8) git bisect bad
10cd1e8446b43653a0cfd39d2c510a1ba93640d0 is the first bad commit
commit 10cd1e8446b43653a0cfd39d2c510a1ba93640d0
Author: Daniel Sandoval <daniel@loopce.com>
Date:   Fri Oct 14 12:37:17 2016 -0300

    Add slides about merge.

:100644 100644 75b22173215b1afbdc2bdaa265693d2fc1771e63 f845c49d592a17531640885086fb0af7fa8e87a0 M      git.key
[→ curso-git git:(10cd1e8) ]
```



```
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 62)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 63) ## Merge
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 64)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 65) ## Rebase
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 66)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 67) ## Stash
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 68)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 69) ## Processo de Desenvolvimento
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 70)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 71) ## Tags
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 72)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 73) ## Resolvendo problemas
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 74)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 75) ## Reflog
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 76)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 77) ## Blame
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 78)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 79) ## Bisect
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 80)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 81) ## Submodules
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 82)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 83) ## Pro tips
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 84)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 85) * Gitignore
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 86) * Nunca commite informação sensível
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 87)
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 88) ## Git LFS
^893a864 (Daniel Sandoval 2016-10-14 10:14:55 -0300 89)
94045f76 (Daniel Sandoval 2016-10-14 12:19:18 -0300 90) ## Integração Contínua ?
f75e33d2 (Daniel Sandoval 2016-10-14 12:46:10 -0300 91)
dd48541e (Daniel Sandoval 2016-10-14 13:02:49 -0300 92) Modificar algo no README.
```

(END)



```
➔ curso-git git:(master) ✗ git --no-pager show f75e33d2
```

```
commit f75e33d2dbc2613e6333e86b06064e31824a48f2
```

```
Author: Daniel Sandoval <daniel@loopce.com>
```

```
Date: Fri Oct 14 12:46:10 2016 -0300
```

```
    Add some info to README.md
```

```
diff --git a/README.md b/README.md
```

```
index 502c647..9e8aa3b 100644
```

```
--- a/README.md
```

```
+++ b/README.md
```

```
@@ -88,3 +88,5 @@ TK Add intro here.
```

```
    ## Git LFS
```

```
    ## Integração Contínua ?
```

```
+
```

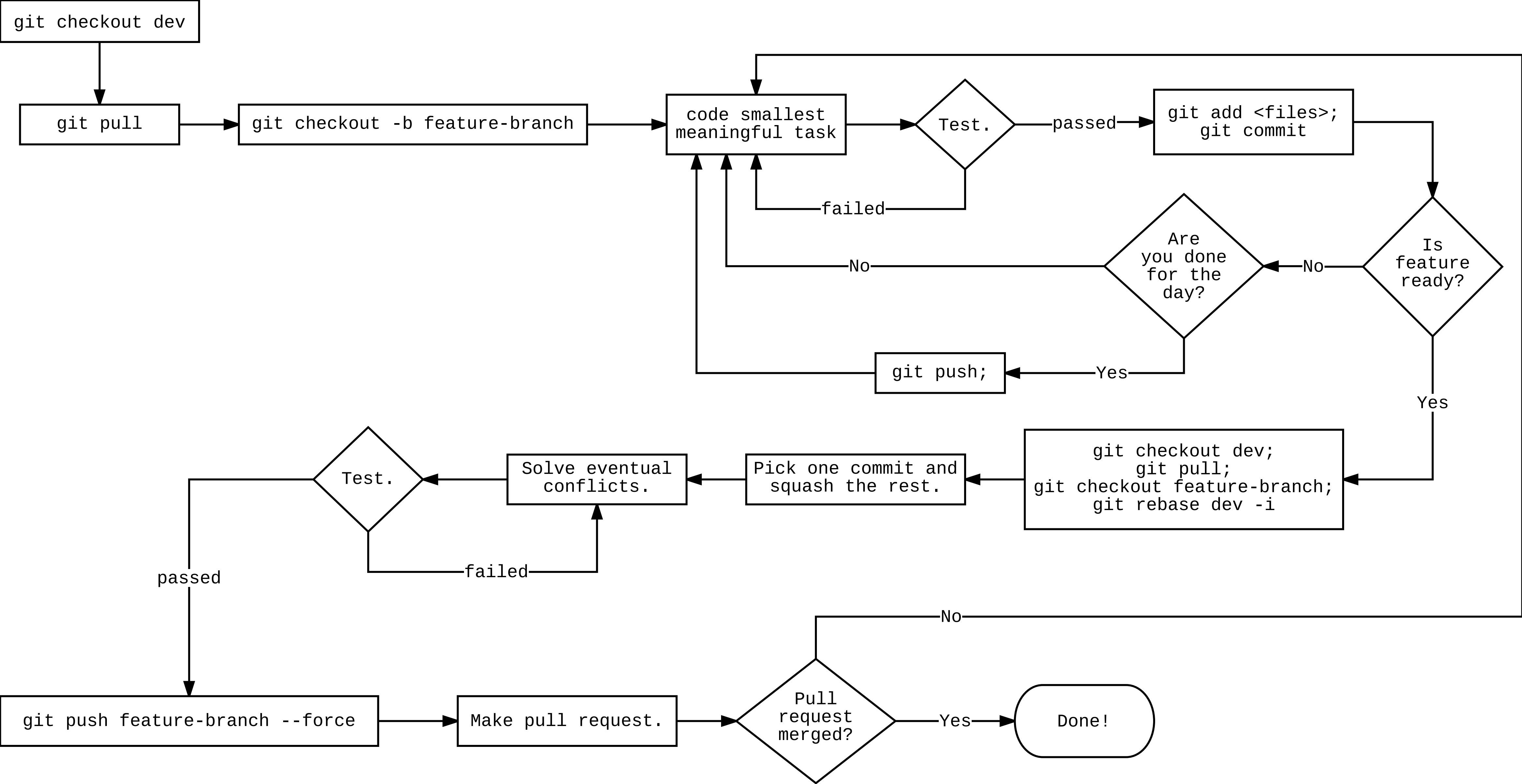
```
+Alguém inseriu dados no remoto,
```

```
➔ curso-git git:(master) ✗
```



# PROCESSO DE DESENVOLVIMENTO







# PULL REQUESTS

- Ferramenta dos sistemas de hospedagem (e.g. Github) que permitem revisão do código antes de sua incorporação.
- Adicione todas as informações pertinentes sobre suas modificações.
- Adicione informações sobre testar as modificações e quais os resultados esperados.



## Dashboard

Overview Repositories Pull requests **3** Issues **1** Snippets

### Pull requests

Waiting on your review ...

Activity

Reviewers

Builds



[Ble\\_proximity](#) →

dev

Matheus Gomes - #133, last updated yesterday

💬 104

✅ 1



[Sms](#) →

dev-v1.1

Alysson Raniere - #40, last updated 3 days ago

💬 15



[New door form](#) →

dev

Charles Oliveira - #47, last updated 7 days ago





# GITIGNORE

- Arquivo que define formatos, arquivos e diretórios que devem ser ignorados pelo Git.
- Coloque aqui arquivos do sistema operacional, das ferramentas de compilação e das IDEs.



```
# Created by http://www.gitignore.io
```

```
### Xcode ###
```

```
build/
```

```
*.pbxuser
```

```
!default.pbxuser
```

```
*.mode1v3
```

```
!default.mode1v3
```

```
*.mode2v3
```

```
!default.mode2v3
```

```
*.perspectivev3
```

```
!default.perspectivev3
```

```
xcuserdata
```

```
*.xccheckout
```

```
*.moved-aside
```

```
DerivedData
```

```
*.xcuserstate
```

```
### OSX ###
```

```
.DS_Store
```

```
.AppleDouble
```

```
.LSOverride
```

```
# Icon must end with two \r
```

```
Icon
```

```
# Thumbnails
```

```
*_*
```

```
# Files that might appear on external disk
```

```
.gitignore
```



# INFORMAÇÕES SENSÍVEIS

- Nunca coloque informações sensíveis em um sistema de versionamento. Isso inclui credenciais, senhas, chaves e certificados digitais.
- Para apagar completamente dados do Git, é necessário reescrever todo o histórico a partir da inclusão. Nesse caso, veja <https://help.github.com/articles/remove-sensitive-data/>



# FERRAMENTAS

- Hospedagem, tarefas e code-review: Github e Bitbucket.
- Interface gráfica: SourceTree e GitKraken.
- Todas as IDEs modernas oferecem integrações com o Git.
- Sugestão: permaneça na linha de comando!



# OUTRAS FUNCIONALIDADES

- Submodules: importe outros repositórios dos quais o seu projeto depende.
- Git LFS: armazene arquivos grandes separadamente para otimizar o repositório.



# INTEGRAÇÃO CONTÍNUA

- Serviços de hospedagem podem ser integrados a sistemas que compilam e testam o projeto sempre que há modificações.
- Pode automatizar testes em diferentes plataformas.
- Acelera o processo de encontrar bugs, principalmente erros de compilação.





Obrigado!

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