



Mini Curso

By David Cardoso ;)

Março/2017

O QUE É GIT?!

Git pronunciado [git] é um sistema de controle de versão distribuído e um sistema de gerenciamento de código fonte, com ênfase em velocidade. O **Git** foi inicialmente projetado e desenvolvido por Linus Torvalds para o desenvolvimento do kernel Linux, mas foi adotado por muitos outros projetos.

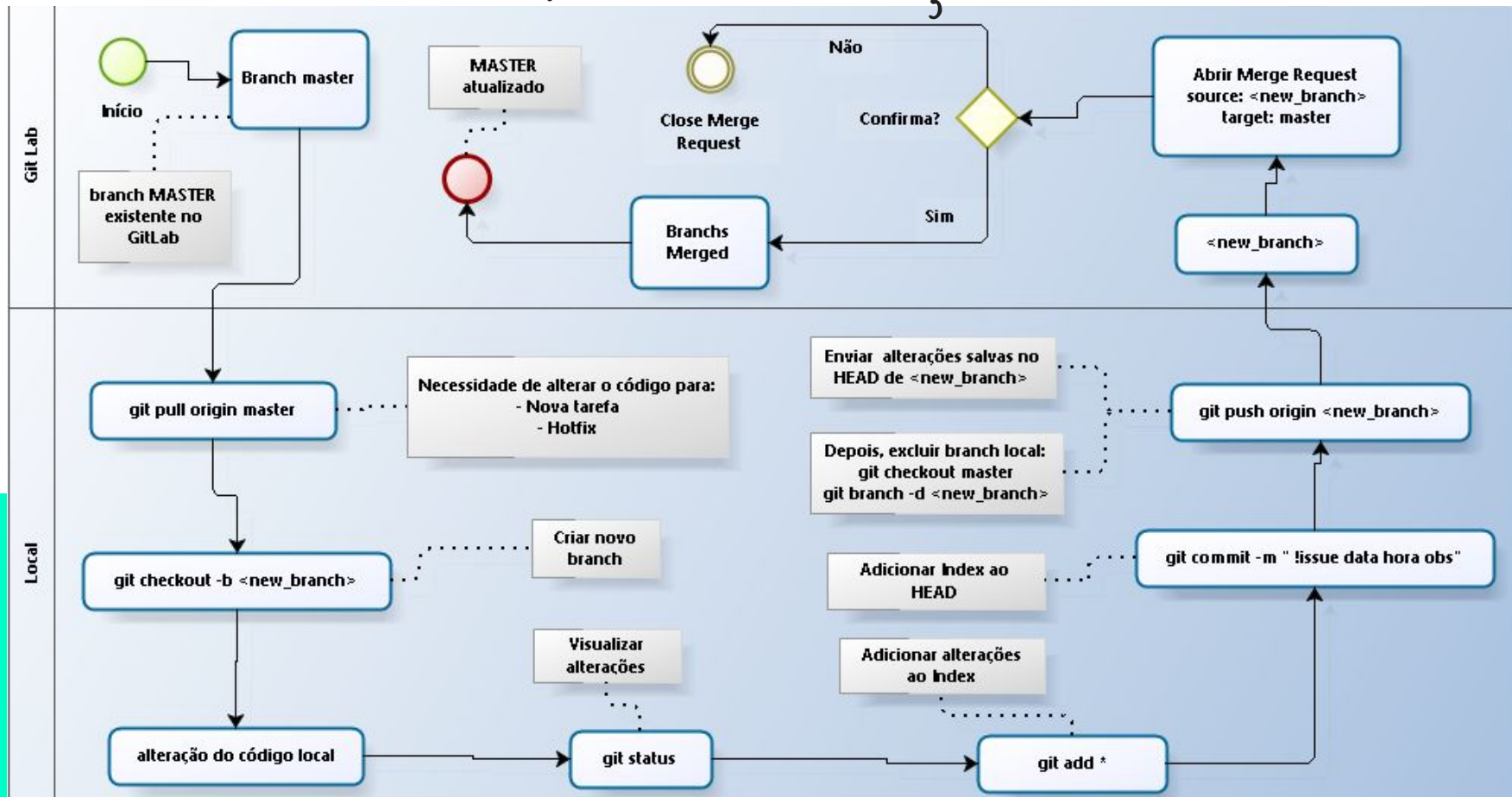


Git – Wikipédia, a enciclopédia livre
<https://pt.wikipedia.org/wiki/Git>

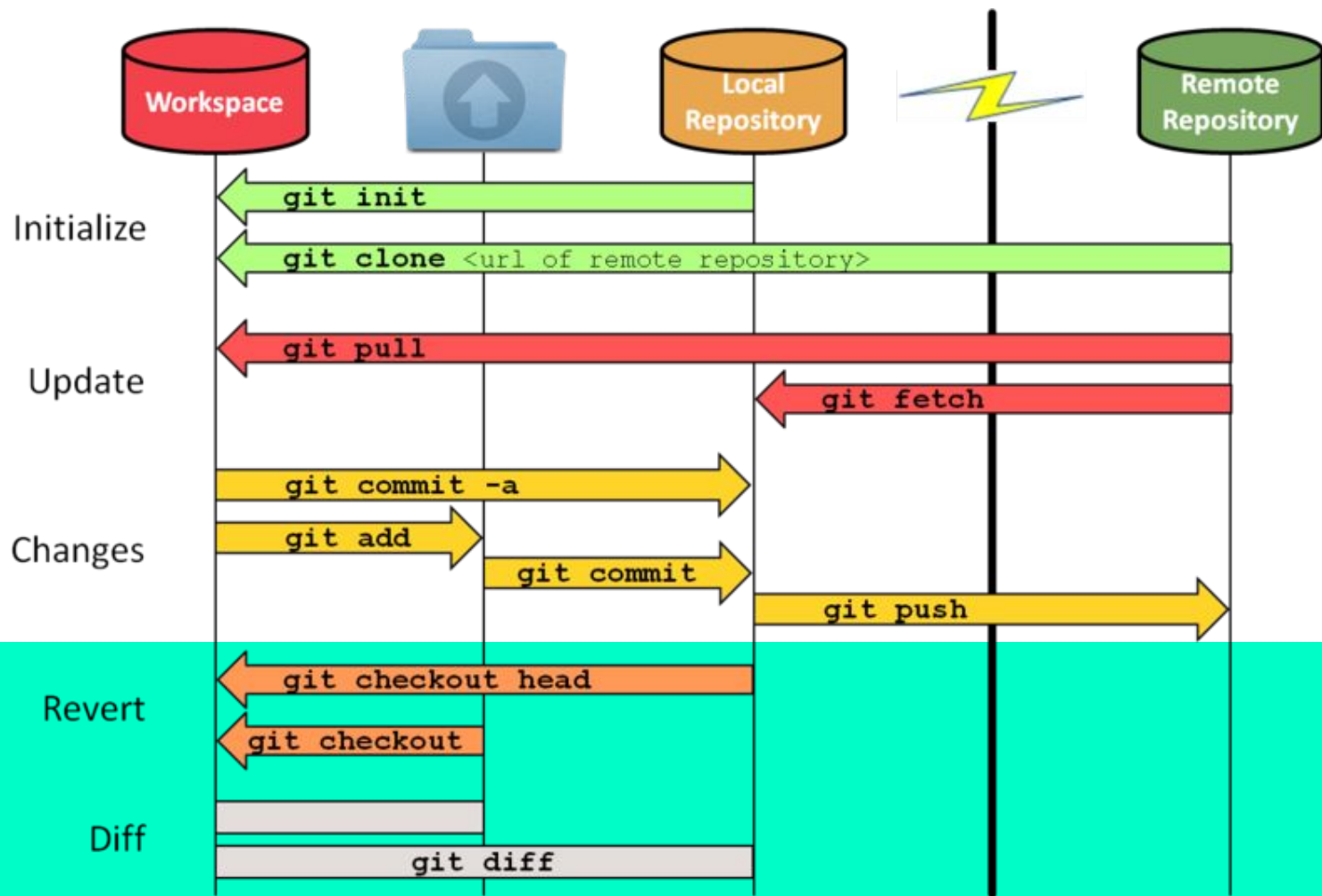
SERVIÇOS BASEADOS NO GIT



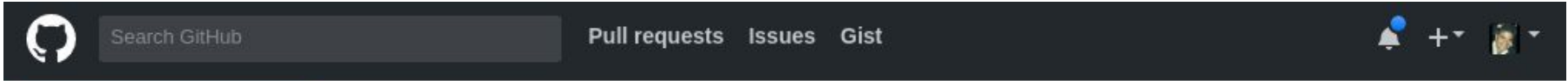
DIAGRAMA DE UTILIZAÇÃO DO GIT




GIT WORKFLOW



GITHUB



1

A series of five icons representing different project types: a star, a person, a document, a speech bubble, and another star. Each icon is followed by a horizontal bar chart showing progress or activity.

Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

Explore GitHub

Repositories you contribute to 7

		1 ★
		0 ★
		0 ★
		0 ★
		0 ★

Show 2 more repositories...

Your repositories 4 2

New repository

Find a repository...

All Public Private Sources Forks

REPOSITÓRIOS

Organizar por:

- Projetos
- Disciplinas
- Clientes

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner



davidcardoso-ti ▾

Repository name

imd-mini-curso ✓

1

Great repository names are short and memorable. Need inspiration? How about **miniature-guacamole**.

Description (optional)

Repositório exemplo para o mini curso de GitHub no IMD.



Public

Anyone can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

2



Initialize this repository with a README 3

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

4

Add .gitignore: C++ ▾

Add a license: GNU General Public License v3.0 ▾



Create repository

Okay!

=)

Repository page for **imd-mini-curso** by **davidcardoso-ti**.

Repository description: Repositório exemplo para o mini curso de GitHub no IMD.

Repository statistics: 1 commit, 1 branch, 0 releases, 1 contributor.

Branch: master. Actions: New pull request, Create new file, Upload files, Find file, Clone or download.

Files and commits:

File	Commit	Time
.gitignore	Initial commit	just now
LICENSE	Initial commit	just now
README.md	Initial commit	just now

Selected file: **README.md**

imd-mini-curso

Repositório exemplo para o mini curso de GitHub no IMD.

COMMIT


Repository: davidcardoso-ti / imd-mini-curso



Unwatch 1 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Branch: master

Commits on Mar 3, 2017

 **Initial commit**
davidcardoso-ti committed 5 minutes ago

 8b45eaa 

BRANCH

Separar por:

- Pessoa
- Tarefa
- Hotfix

Screenshot of the GitHub repository interface for **dauidcardoso-ti / imd-mini-curso**.

Repository Header:

- Unwatch: 1
- Star: 0
- Fork: 0

Navigation Bar:

- <> Code
- Issues: 0
- Pull requests: 0
- Projects: 0
- Wiki
- Pulse
- Graphs
- Settings

Branches Tab:

- Overview
- Yours
- Active
- Stale
- All branches**

All branches

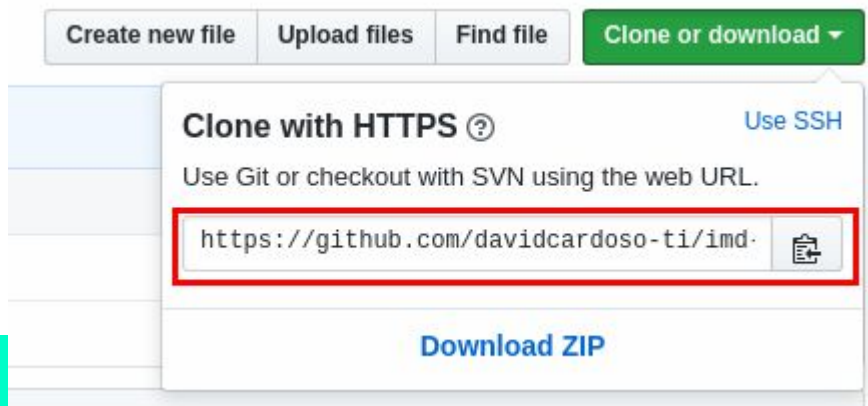
Branch Name	Last Update	Author	Commits
master	Updated 29 minutes ago	dauidcardoso-ti	0 1
branch-novo	Updated 24 seconds ago	dauidcardoso-ti	0 0
novo-branch	Updated 29 minutes ago	dauidcardoso-ti	0 0

Actions (highlighted in red box):

- Change default branch
- New pull request (with trash icon)
- New pull request (with trash icon)

COPIANDO DO REPOSITÓRIO...

- HTTPS
- SSH
- Download



PULL REQUEST

- Pedido de mesclagem de um *branch* com outro.

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#).

1

base: master ... compare: branch-novo

✓ Able to merge. These branches can be automatically merged.

2

Descricao do commit

Write

Preview

AA B i “ < > ↻ ⋮ ≡ ≡ ↶ @ 📌

3

Resumo do que está sendo "mesclado".

4

Reviewers

No reviews—request one

Assignees

No one—assign yourself

Labels

None yet

Milestone

No milestone

5

Create pull request

1 commit

1 file changed

0 commit comments

1 contributor

Commits on Mar 03, 2017

davidcardoso-ti

Descricao do commit

6b4aef8

PULL REQUEST

- PR fica aberto
- PR deve ser validado
- PR precisa ser confirmado ou fechado

Descricao do commit #1

 Open davidcardoso-ti wants to merge 1 commit into `master` from `branch-novo`

 Conversation 0

 Commits 1

 Files changed 1




davidcardoso-ti commented just now

Owner



Resumo do que está sendo "mesclado".

 Descricao do commit

6b4aef8

Add more commits by pushing to the `branch-novo` branch on `davidcardoso-ti/imd-mini-curso`.



This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request



or view [command line instructions](#).

PR

Descricao do commit #1

Merged davidcardoso-ti merged 1 commit into `master` from `branch-novo` just now

Conversation 0

Commits 1

Files changed 1



davidcardoso-ti commented just now

Owner



Resumo do que está sendo "mesclado".



Descricao do commit

6b4aef8



davidcardoso-ti merged commit **063eb0f** into `master` just now

Revert



Pull request successfully merged and closed

You're all set—the `branch-novo` branch can be safely deleted.

Delete branch

PULL REQUEST

📁 davidcardoso-ti / imd-mini-curso

👁 Unwatch ▾

1

★ Star

0

🍴 Fork

0

↔ Code

🔔 Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📡 Pulse

📊 Graphs

⚙ Settings

Overview

Yours

Active

Stale

All branches

🔍 Search branches...

All branches

master Updated 2 minutes ago by davidcardoso-ti

Default

Change default branch

branch-novo Updated 6 minutes ago by davidcardoso-ti

novo-branch Updated 35 minutes ago by davidcardoso-ti

1 | 0

#1

🔗 Merged



🔗 New pull request



GIT CLONE (1)

david@localhost:~

Arquivo Editar Ver Pesquisar Terminal Ajuda

```
[david@localhost ~]$ ls
```

```
'Area de trabalho' Downloads imd0029 imd0703 Música Vídeos
Documentos          Imagens  imd0030 Modelos Público web
```

```
[david@localhost ~]$ pwd
```

```
/home/david
```

```
[david@localhost ~]$ git clone http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git teste-clone
```

```
Cloning into 'teste-clone'...
```

```
Username for 'http://projetos.imd.ufrn.br': davidcardoso-ti
```

```
Password for 'http://davidcardoso-ti@projetos.imd.ufrn.br':
```

```
remote: Counting objects: 3, done.
```

```
remote: Compressing objects: 100% (2/2), done.
```

```
remote: Total 3 (delta 0), reused 0 (delta 0)
```

```
Unpacking objects: 100% (3/3), done.
```

```
Checking connectivity... done.
```

```
[david@localhost ~]$ ls
```

```
'Area de trabalho' Downloads imd0029 imd0703 Música teste-clone web
Documentos          Imagens  imd0030 Modelos Público vídeos
```

```
[david@localhost ~]$
```


GIT CLONE (2)

Arquivo Editar Ver Pesquisar Terminal Ajuda

```
[david@localhost ~]$ cd teste-clone/
```

```
[david@localhost teste-clone]$ ls
```

README.md

```
[david@localhost teste-clone]$
```

```
[david@localhost teste-clone]$
```

```
[david@localhost teste-clone]$ git branch
```

* master

```
[david@localhost teste-clone]$
```

```
[david@localhost teste-clone]$
```

```
[david@localhost teste-clone]$ git log -1
```

commit ef288a3e7b29c0a45b5567150475456757410e77

Author: David Cardoso <davidcardoso.ti@gmail.com>

Date: Tue Sep 6 12:31:41 2016 -0300

initial commit

```
[david@localhost teste-clone]$
```

```
[david@localhost teste-clone]$
```

```
[david@localhost teste-clone]$ git remote -v
```

origin http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git (fetch)

origin http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git (push)

```
[david@localhost teste-clone]$
```

GIT INIT (1)

david@localhost:~/teste-init

Arquivo Editar Ver Pesquisar Terminal Ajuda

```
[david@localhost ~]$ pwd
```

```
/home/david
```

```
[david@localhost ~]$ mkdir teste-init
```

```
[david@localhost ~]$
```

```
[david@localhost ~]$ ls
```

```
'Área de trabalho' Downloads imd0029 imd0703 Música teste-clone Vídeos  
Documentos          Imagens  imd0030 Modelos Público teste-init web
```

```
[david@localhost ~]$
```

```
[david@localhost ~]$ cd teste-init/
```

```
[david@localhost teste-init]$
```

```
[david@localhost teste-init]$ git init
```

```
Initialized empty Git repository in /home/david/teste-init/.git/
```

```
[david@localhost teste-init]$
```

```
[david@localhost teste-init]$ ls -la
```

```
total 12
```

```
drwxrwxr-x.  3 david david 4096 Set  7 22:01 .  
drwx----- 31 david david 4096 Set  7 22:01 ..  
drwxrwxr-x.  7 david david 4096 Set  7 22:01 .git
```

```
[david@localhost teste-init]$
```

GIT INIT (2)

```
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
[david@localhost teste-init]$
[david@localhost teste-init]$ git remote
[david@localhost teste-init]$
[david@localhost teste-init]$ git remote add origin http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git
[david@localhost teste-init]$
[david@localhost teste-init]$ git remote -v
origin  http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git (fetch)
origin  http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git (push)
[david@localhost teste-init]$
[david@localhost teste-init]$ git pull origin master
Username for 'http://projetos.imd.ufrn.br': davidcardoso-ti
Password for 'http://davidcardoso-ti@projetos.imd.ufrn.br':
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0)
Unpacking objects: 100% (3/3), done.
From http://projetos.imd.ufrn.br/davidcardoso-ti/teste
 * branch            master       -> FETCH HEAD
 * [new branch]      master       -> origin/master
[david@localhost teste-init]$
[david@localhost teste-init]$ ls
README.md
[david@localhost teste-init]$
```

GIT INIT (3)

david@localhost:~/teste-init

Arquivo Editar Ver Pesquisar Terminal Ajuda

[david@localhost teste-init]\$

[david@localhost teste-init]\$ **git branch**

* **master**

[david@localhost teste-init]\$

[david@localhost teste-init]\$

[david@localhost teste-init]\$ **git log -1**

commit **ef288a3e7829c0a45b5562150475456f5f410e77**

Author: David Cardoso <davidcardoso.ti@gmail.com>

Date: Tue Sep 6 12:31:41 2016 -0300

initial commit

[david@localhost teste-init]\$

[david@localhost teste-init]\$

[david@localhost teste-init]\$ **ls -la**

total 16

drwxrwxr-x. 3 david david 4096 Set 7 22:08 .

drwx----- 31 david david 4096 Set 7 22:01 ..

drwxrwxr-x. 8 david david 4096 Set 7 22:08 .git

-rw-rw-r-- 1 david david 67 Set 7 22:03 README.md

[david@localhost teste-init]\$

GIT ADD (. OU *)

```

david@localhost:~/teste-init
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
[david@localhost teste-init]$ touch main.cpp
[david@localhost teste-init]$
[david@localhost teste-init]$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

    main.cpp

nothing added to commit but untracked files present (use "git add" to track)
[david@localhost teste-init]$
[david@localhost teste-init]$
[david@localhost teste-init]$ git add .
[david@localhost teste-init]$
[david@localhost teste-init]$
[david@localhost teste-init]$ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    new file:   main.cpp

```

← Adiciona alterações ao INDEX

GIT COMMIT

david@localhost:~/teste-init

Arquivo Editar Ver Pesquisar Terminal Ajuda

```
[david@localhost teste-init]$  
[david@localhost teste-init]$ git commit -m "06/09/2016 20h00" -m "adicionando main.cpp"
```

```
[master 1929a7e] 06/09/2016 20h00  
1 file changed, 0 insertions(+), 0 deletions(-)  
create mode 100644 main.cpp
```

```
[david@localhost teste-init]$
```

```
[david@localhost teste-init]$
```

```
[david@localhost teste-init]$ git log -1  
commit 1929a7e52ff827e3827cccbde/abc14a2bee3bcc  
Author: davidcardoso-ti <davidcardoso.ti@gmail.com>  
Date: Wed Sep 7 22:21:59 2016 -0300
```

06/09/2016 20h00

adicionando main.cpp

```
[david@localhost teste-init]$
```

Confirma e adiciona as alterações ao HEAD

GIT STATUS

```
main.cpp  README.md
[david@localhost teste-init]$
[david@localhost teste-init]$ touch arquivo.h
[david@localhost teste-init]$
[david@localhost teste-init]$ touch arquivo.cpp
[david@localhost teste-init]$
[david@localhost teste-init]$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
```

```
arquivo.cpp
arquivo.h
```

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

```
[david@localhost teste-init]$
[david@localhost teste-init]$ git add .
[david@localhost teste-init]$
[david@localhost teste-init]$ git status
```

```
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)
```

```
new file:   arquivo.cpp
new file:   arquivo.h
```

Mostra as alterações:
- vermelho = untracked
- verde = tracked

GIT LOG

```
[david@localhost teste-init]$  
[david@localhost teste-init]$ git commit -m "07/09/2016" -m "adicionando arquivo.h e arquivo.cpp"  
[master 9caf11d] 07/09/2016
```

```
2 files changed, 0 insertions(+), 0 deletions(-)  
create mode 100644 arquivo.cpp  
create mode 100644 arquivo.h
```

```
[david@localhost teste-init]$
```

```
[david@localhost teste-init]$ git log -3
```

```
commit 9caf11d35e1bb43135b21ac00f6d8c5c3ad6a016
```

```
Author: davidcardoso-ti <davidcardoso.ti@gmail.com>
```

```
Date: Wed Sep 7 22:28:11 2016 -0300
```

```
07/09/2016
```

```
adicionando arquivo.h e arquivo.cpp
```

```
commit 1929a7e52ff827e3827cccbde7abcf4a26ee3bcc
```

```
Author: davidcardoso-ti <davidcardoso.ti@gmail.com>
```

```
Date: Wed Sep 7 22:21:59 2016 -0300
```

```
06/09/2016 20h00
```

```
adicionando main.cpp
```

```
commit ef288a3e7b29c0a45b5562150475456f5f410e77
```

```
Author: David Cardoso <davidcardoso.ti@gmail.com>
```

```
Date: Tue Sep 6 12:31:41 2016 -0300
```

Lista os commits do branch atual.

GIT PUSH

david@localhost:~/teste-init

Arquivo Editar Ver Pesquisar Terminal Ajuda

```
[david@localhost teste-init]$  
[david@localhost teste-init]$ git branch  
* master  
[david@localhost teste-init]$  
[david@localhost teste-init]$ git checkout -b novo-branch  
Switched to a new branch 'novo-branch'  
[david@localhost teste-init]$  
[david@localhost teste-init]$ git push origin novo-branch  
Username for 'http://projetos.imd.ufrn.br': davidcardoso-ti  
Password for 'http://davidcardoso-ti@projetos.imd.ufrn.br':  
Counting objects: 5, done.  
Delta compression using up to 4 threads.  
Compressing objects: 100% (4/4), done.  
Writing objects: 100% (5/5), 500 bytes | 0 bytes/s, done.  
Total 5 (delta 1), reused 0 (delta 0)  
To http://projetos.imd.ufrn.br/davidcardoso-ti/teste.git  
* [new branch]      novo-branch -> novo-branch  
[david@localhost teste-init]$  
[david@localhost teste-init]$ git branch  
  master  
* novo-branch  
[david@localhost teste-init]$
```

Envia commits no repositório local para o repositório remoto.

GIT DOCUMENTAÇÃO

**Para obter informações mais completas sobre o Git,
acesse o link da documentação:**

<https://git-scm.com/doc>

BONUS: ARQUIVO .GITIGNORE

```
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
[david@localhost teste-clone]$ ls -la
total 20
drwxrwxr-x.  3 david david 4096 Set  8 00:56 .
drwx----- 31 david david 4096 Set  8 01:03 ..
drwxrwxr-x.  8 david david 4096 Set  7 21:27 .git
-rw-rw-r--.  1 david david  249 Set  8 00:56 .gitignore
-rw-rw-r--.  1 david david   67 Set  7 21:27 README.md
[david@localhost teste-clone]$
```

Usado para ignorar arquivos ao usar "git add"

```
Arquivo  Editar  Ver  Pesquisar  Terminal  Ajuda
# Compiled Object files
*.slo
*.lo
*.o
*.obj

# Precompiled Headers
*.gch
*.pch

# Compiled Dynamic libraries
*.so
*.dylib
*.dll

# Fortran module files
*.mod
*.smod
```

Documentação: <http://goo.gl/p8oujJ>

BONUS: MERGE CONFLICTS

Ferramentas auxiliares para resolução de conflitos:

- **Smartgit:** <http://goo.gl/PJb1Hr>
- **Atom:** <http://goo.gl/10jHAz>

BONUS: PLUGINS P/ SUBLIME TEXT 3

- **PackageControl:** <https://packagecontrol.io/>
- **DocBlockr:** <http://goo.gl/RlUujn>
- **C++11:** <http://goo.gl/2ofikx>
- **C++ Snippet:** <http://goo.gl/31oKMf>
- **C++ Builder:** <http://goo.gl/sCIeun>
- **Git:** <http://goo.gl/h18Ni0>
- **SublimeCodeIntel:** <http://goo.gl/2QLIwe>
- **SublimeLinter:** <http://goo.gl/FQC0SR>
- **Alignment:** <http://goo.gl/2P0h6k>
- **BracketHighlighter:** <http://goo.gl/d960uv>
- **Terminal:** <http://goo.gl/AVXxNw>

OBRIGADO!

David Cardoso Gomes da Silva

Github: <https://github.com/davidcardoso-ti>

Gitlab: <http://projetos.imd.ufrn.br/u/davidcardoso-ti>

Email: davidcardoso.ti@gmail.com

Fone: (84) 98898-5354

Skype: davidcardoso.ti

Twitter: davidcardosoti

Link desta apresentação:

<https://goo.gl/0wU10r>