

# **GIT**



**TECHTALK**

**SEÇÃO DE DESENVOLVIMENTO DE  
SOFTWARE ADMINISTRATIVO**

**PAULO VITOR LIMA**

# Conceitos



# Introdução



- **Techtalk** – conversas técnicas sobre vários temas:
  - Novas tecnologias;
  - Tendências;
- **Colaborativo:**
  - Laboratório;
  - Proposição dos temas;
- **Hábito;**

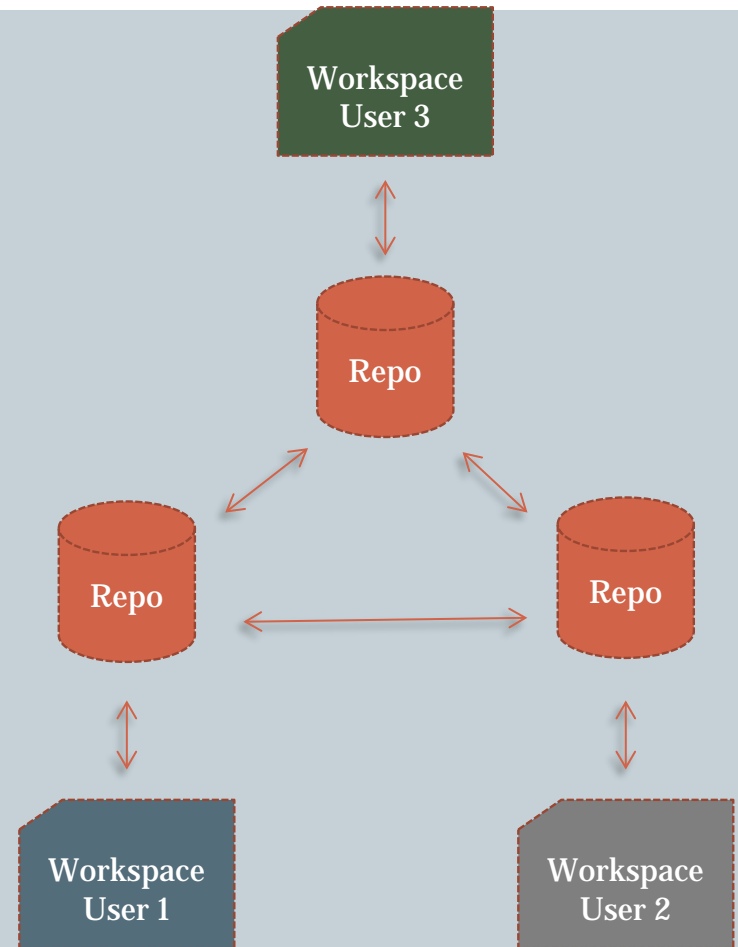
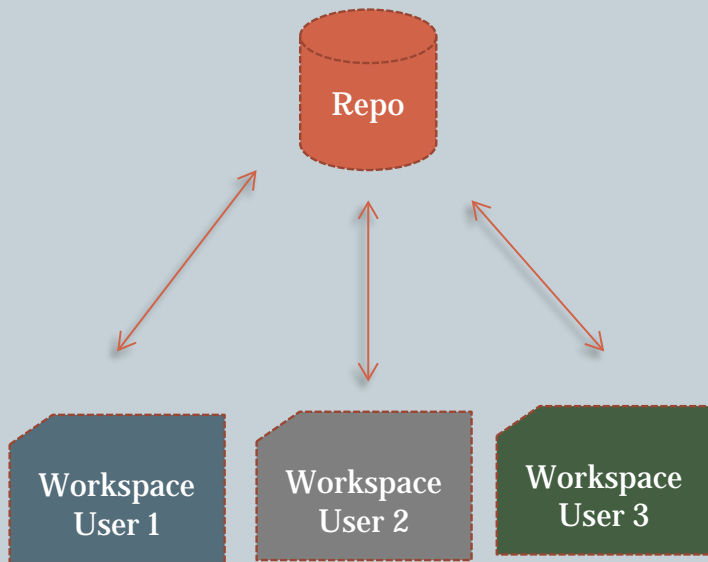


Conceitos



**Esqueça o  
que você  
pensa que  
sabe!**

# Conceitos

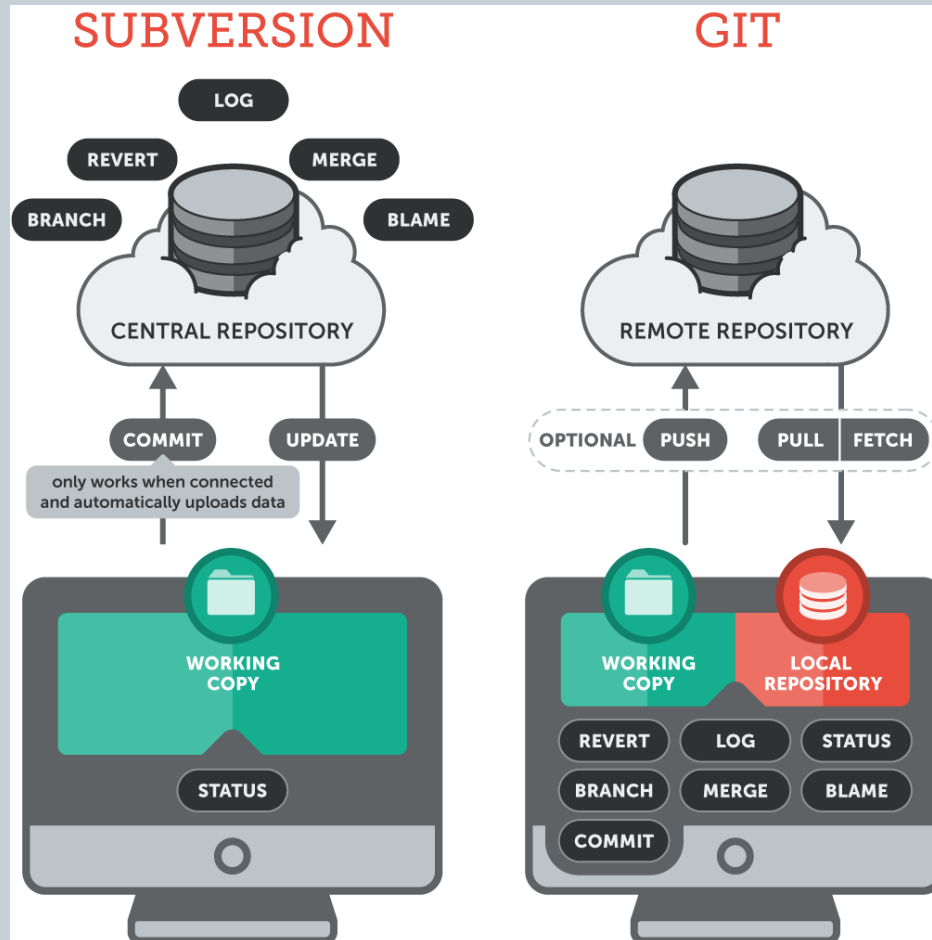


# Comandos Básicos



**COMO FAZER?**

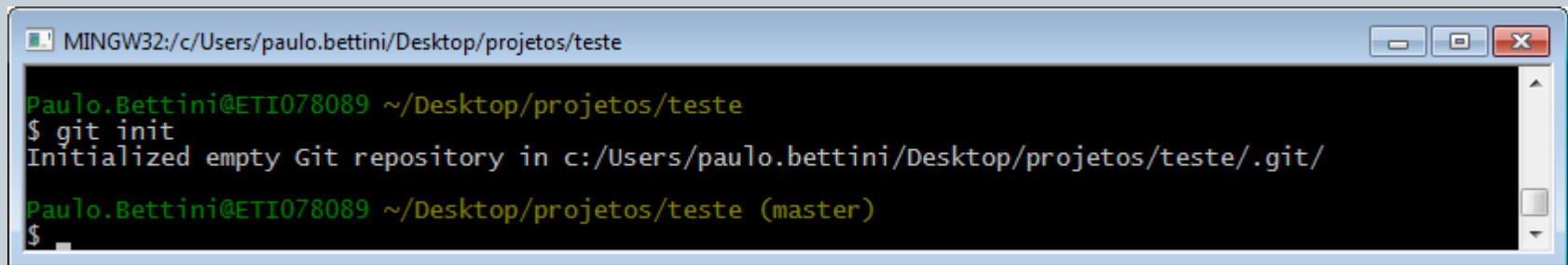
# Conceitos



# Get ready!



## Repositório local

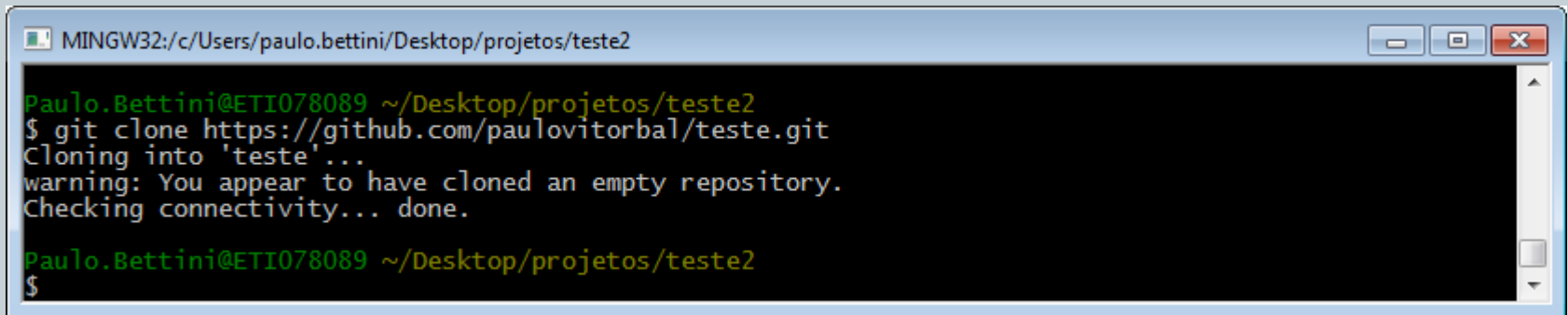
A screenshot of a Windows command prompt window titled 'MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste'. The window has standard Windows window controls (minimize, maximize, close) in the top right corner. The terminal text shows a user named 'Paulo.Bettini@ETI078089' at the directory '~/Desktop/projetos/teste' running the command '\$ git init'. The output is 'Initialized empty Git repository in c:/Users/paulo.bettini/Desktop/projetos/teste/.git/'. The prompt then shows the user is now on the '(master)' branch, with the prompt '\$ \_' indicating the cursor is ready for the next command.

```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste
$ git init
Initialized empty Git repository in c:/Users/paulo.bettini/Desktop/projetos/teste/.git/

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste (master)
$ _
```

## Repositório remoto

A screenshot of a Windows command prompt window titled 'MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2'. The window has standard Windows window controls (minimize, maximize, close) in the top right corner. The terminal text shows a user named 'Paulo.Bettini@ETI078089' at the directory '~/Desktop/projetos/teste2' running the command '\$ git clone https://github.com/paulovitorbal/teste.git'. The output is 'Cloning into 'teste'...' followed by a warning: 'warning: You appear to have cloned an empty repository. Checking connectivity... done.' The prompt then shows the user is now on the '(master)' branch, with the prompt '\$' indicating the cursor is ready for the next command.

```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2
$ git clone https://github.com/paulovitorbal/teste.git
Cloning into 'teste'...
warning: You appear to have cloned an empty repository.
Checking connectivity... done.

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2
$
```



# Zonas



working

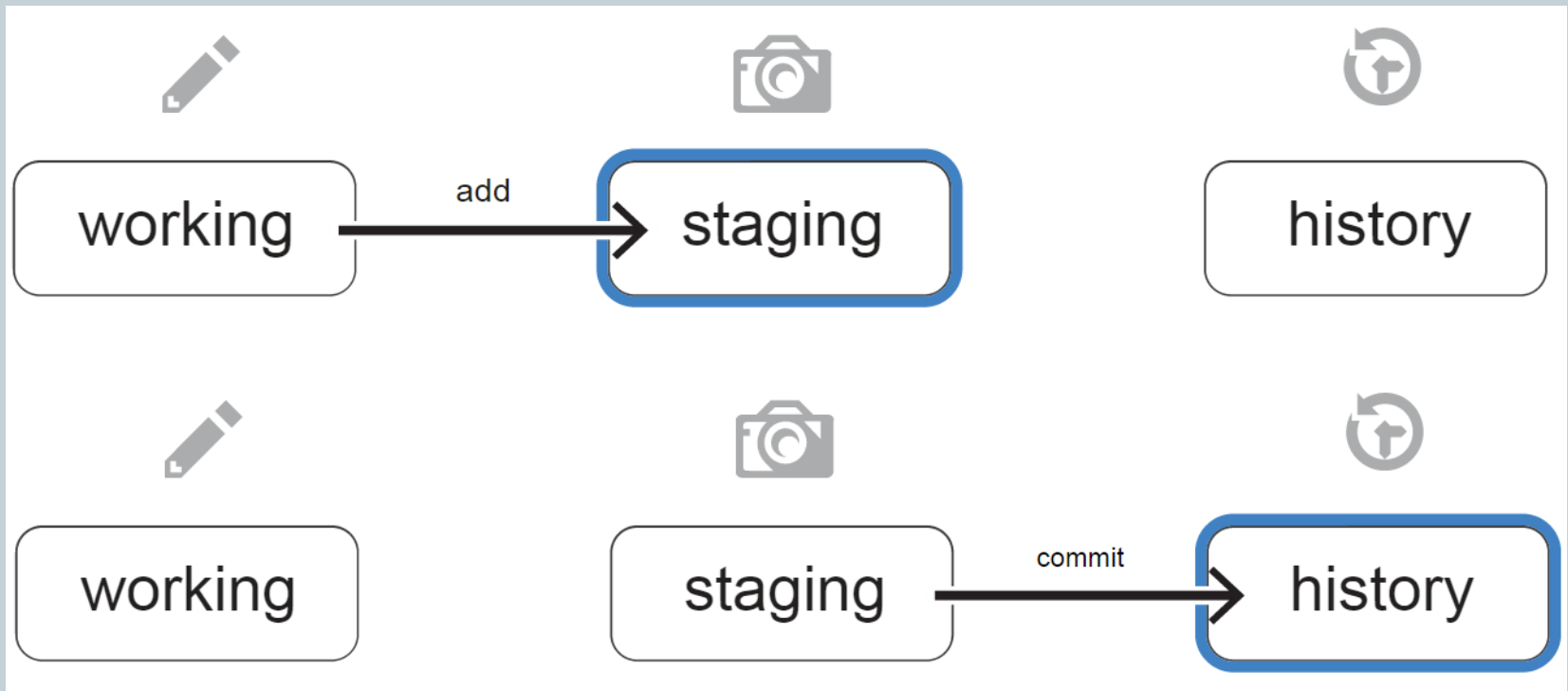


staging



history

# Operações básicas



# Criando um arquivo

A screenshot of a Windows terminal window titled "MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste". The terminal shows the execution of 'touch readme.txt' and 'git status'. The output of 'git status' indicates an initial commit with untracked files, specifically 'readme.txt'. The user is prompted to use 'git add' to track the file. The terminal window has a standard Windows title bar with minimize, maximize, and close buttons.

```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ touch readme.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git status
On branch master

Initial commit

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

        readme.txt

nothing added to commit but untracked files present (use "git add" to track)
Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```

# Adicionado um arquivo ao stage

A screenshot of a Windows terminal window titled "MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste". The terminal shows the execution of Git commands to add a new file to the staging area. The output indicates an initial commit with one new file staged for commit.

```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git add readme.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git status
On branch master

Initial commit

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   readme.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```

# Commit

A screenshot of a Windows terminal window titled 'MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste'. The terminal shows a series of Git commands and their outputs. The user is on the 'master' branch. They commit a file named 'arquivo de instruções' with the message 'arquivo de instruções'. The commit hash is 'e6ea26a'. The status shows '1 file changed, 0 insertions(+), 0 deletions(-)' and 'create mode 100644 readme.txt'. The user then runs 'git status', which shows 'On branch master' and 'Your branch is based on 'origin/master', but the upstream is gone. (use "git branch --unset-upstream" to fixup)'. The working directory is clean. The terminal window has standard Windows window controls (minimize, maximize, close) in the top right corner.

```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste

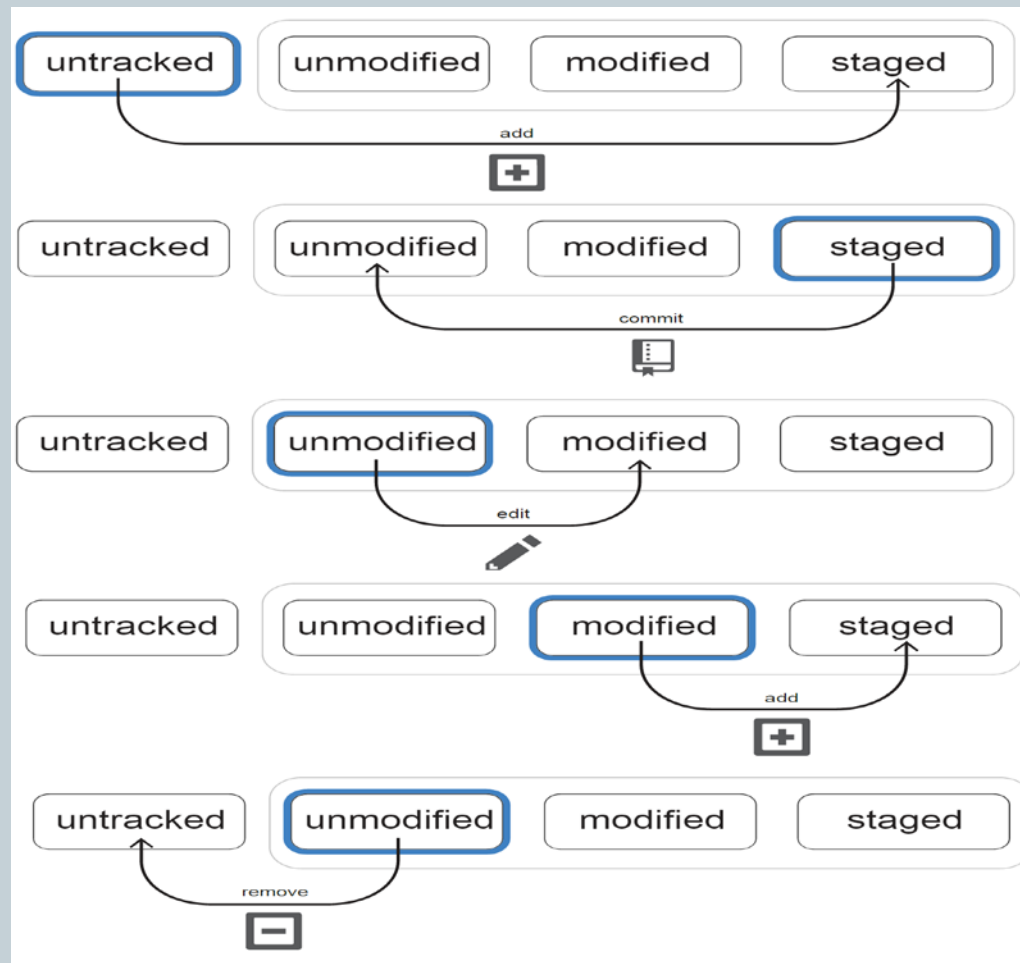
Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git commit -m "arquivo de instruções"
[master (root-commit) e6ea26a] arquivo de instruções
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 readme.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git status
On branch master
Your branch is based on 'origin/master', but the upstream is gone.
(use "git branch --unset-upstream" to fixup)

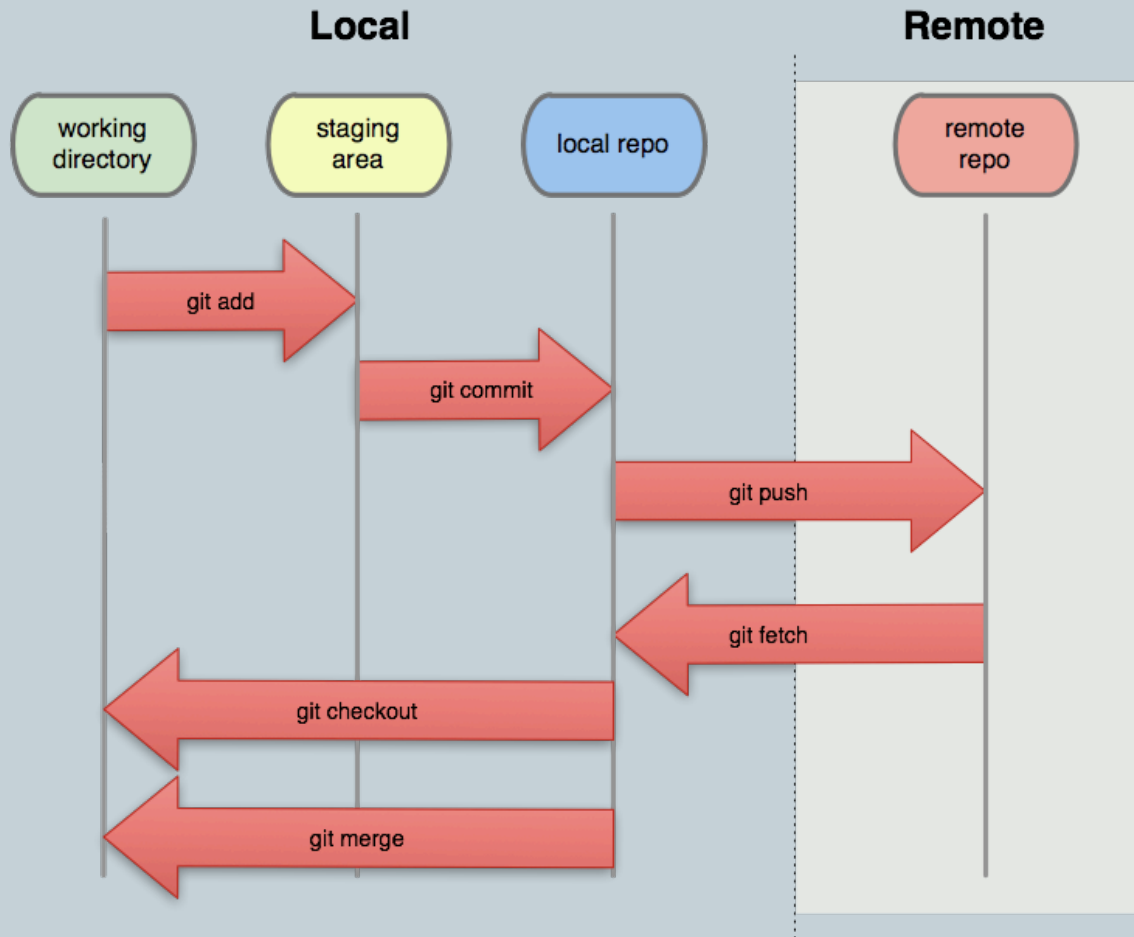
nothing to commit, working directory clean

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```

# Outros comandos sobre alteração de arquivos



# Interação com o servidor



# Git push

A screenshot of a Windows terminal window titled 'MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste'. The terminal shows the execution of 'git push' and 'git status' commands. The 'git push' command successfully pushes the master branch to a GitHub repository. The 'git status' command shows that the working directory is clean and up-to-date with the origin/master branch.

```
Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git push
Username for 'https://github.com': paulovitorbal@gmail.com
Password for 'https://paulovitorbal@gmail.com@github.com':
Counting objects: 3, done.
Writing objects: 100% (3/3), 246 bytes | 0 bytes/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/paulovitorbal/teste.git
 * [new branch]      master -> master

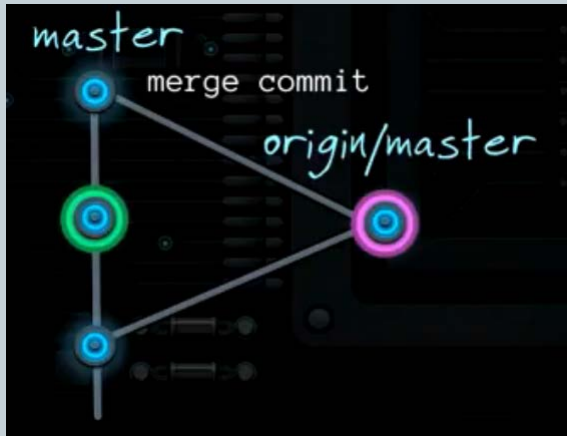
Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git status
On branch master
Your branch is up-to-date with 'origin/master'.

nothing to commit, working directory clean

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```



# Git PULL



Algo errado vai acontecer, se você fizer um push sem antes fazer o pull!

1. Sincronizar
2. Juntar

# Teoria

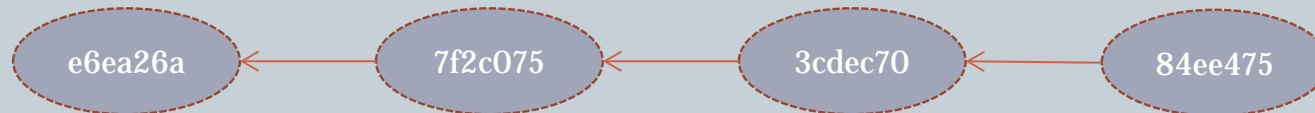


Alguns commits depois:

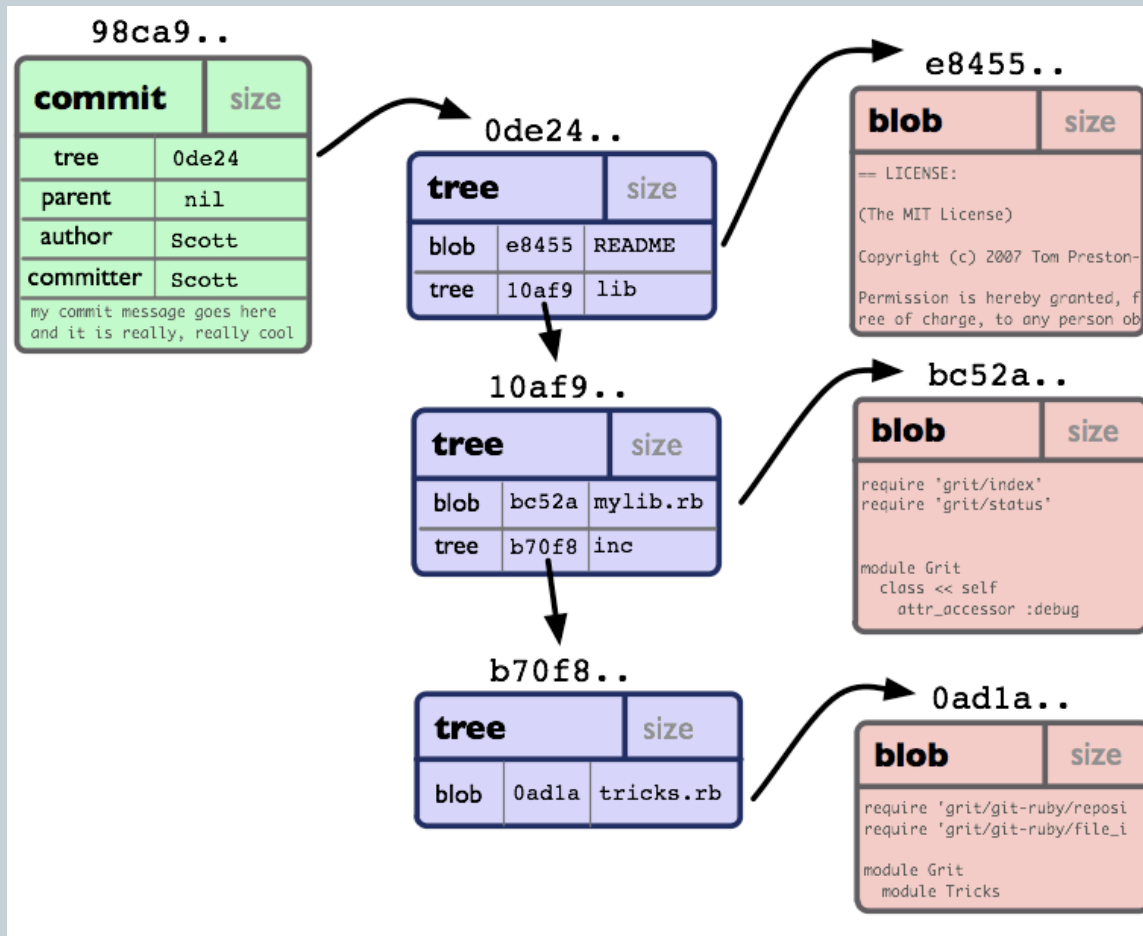
```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git log --graph --parents --oneline
* 84ee475 3cdec70 adicionado classe src/main.java
* 3cdec70 7f2c075 adicionado arquivo teste.txt
* 7f2c075 e6ea26a ola mundo
* e6ea26a arquivo de instruções

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```



# Under the hood



# Branch e checkout

A screenshot of a Windows terminal window titled 'MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste'. The window has standard Windows window controls (minimize, maximize, close) in the top right corner. The terminal shows a series of Git commands and their outputs, demonstrating the creation and checkout of a new branch.

```
Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git branch nova_funcionalidade

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git branch
* master
  nova_funcionalidade

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git checkout nova_funcionalidade
Switched to branch 'nova_funcionalidade'

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (nova_funcionalidade)
$ git branch
master
* nova_funcionalidade

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (nova_funcionalidade)
$
```

# Merge



```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git merge nova_funcionalidade
Merge made by the 'recursive' strategy.
 nova_funcionalidade2.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 nova_funcionalidade2.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git log --pretty=format:"%h %s" --graph
*   4df68c9 Merge branch 'nova_funcionalidade'
|
| * 0af16ea nova funcionalidade 2
| * | ea8404d manutencao 1
|/
* 1034691 adicionado nova funcionalidade
* 84ee475 adicionado classe src/main.java
* 3cdec70 adicionado arquivo teste.txt
* 7f2c075 ola mundo
* e6ea26a arquivo de instruções

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```

# Errando – pós commit

## Fiz merda, e agora?



```
MINGW32:/c/Users/paulo.bettini/Desktop/projetos/teste2/teste
Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ touch erro.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git add erro.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git commit -m "subindo arquivo errado"
[master e30728a] subindo arquivo errado
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 erro.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git revert e30728a
[master eb70816] Revert "subindo arquivo errado"
1 file changed, 0 insertions(+), 0 deletions(-)
delete mode 100644 erro.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$ git log --oneline --name-status -2
eb70816 Revert "subindo arquivo errado"
D      erro.txt
e30728a subindo arquivo errado
A      erro.txt

Paulo.Bettini@ETI078089 ~/Desktop/projetos/teste2/teste (master)
$
```