

# Uma introdução ao git

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CCSL-IME/USP

# git é o cara!

- **Desempenho excelente**
  - ▶ Piora com número *muito* grande de arquivos (perto de 1M)
- **Todas as funcionalidades imagináveis existem**
  - ▶ Mas subdiretórios não podem ser baixados/sincronizados separadamente
- **Hoje em dia, multiplataforma**
- **Permite integrar fluxo de desenvolvimento e de implantação / operação**
  - ▶ Alguns pacotes sugerem esse processo
  - ▶ Alguns ambientes usam esse mecanismo (heroku, openshift...)
- **Viabiliza diversos fluxos de trabalho**
- **Projetos livres migraram em massa**
  - ▶ “Grife” Linus Torvalds
  - ▶ github/gitlab são excelentes e favorecem a colaboração
    - » *Funcionam como redes sociais e foram fundamentais na popularização*
- **Até a Microsoft está usando, além de ter comprado o github**

# git não é amigável

O básico é fácil, mas mesmo usos comuns não são óbvios, porque

- Os nomes dos comandos e suas opções são inconsistentes
  - ▶ O contrário de `git add arquivo` é `git reset arquivo` 🤔
    - » mas `git reset` sem um nome de arquivo faz outra coisa 😞
  - ▶ `git checkout` faz várias coisas diferentes 🤯
  - ▶ `head` é uma coisa, `HEAD` é outra 🤡
  - ▶ `repo-remoto/nome-do-ramo` é uma coisa, `repo-remoto nome-do-ramo` é outra 🤦
  - ▶ etc.
- A documentação é boa e completa, mas é preciso saber *onde* procurar
  - ▶ Em geral, a melhor resposta para “como fazer X” é “procure no google”!
- Para coisas simples, mas não-triviais, é preciso entender como git funciona

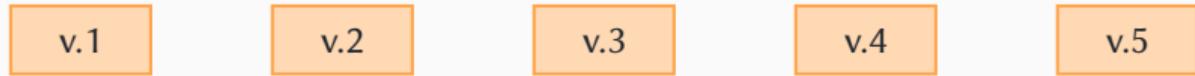
## **Parte I**

**O bê-a-bá do git**

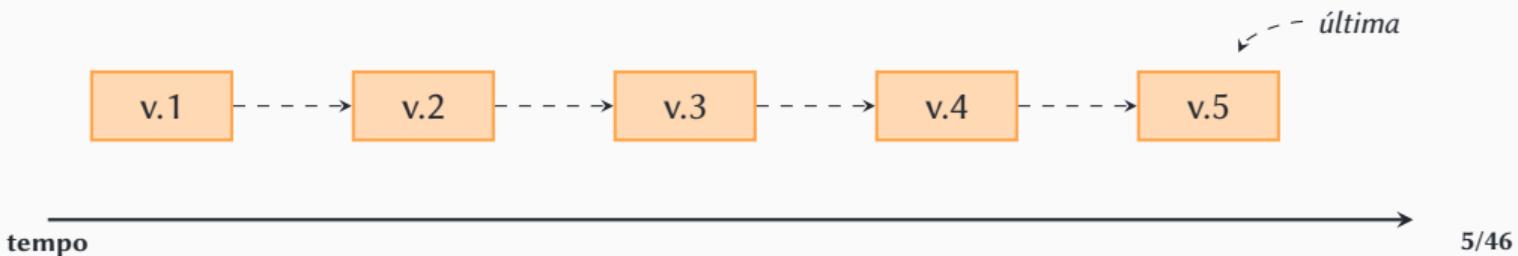
- **git permite colaborar via rede de várias maneiras**
- **A mais comum é utilizar plataformas como *github* ou *gitlab***
  - ▶ Ambas são bastante similares
  - ▶ Funcionam como redes sociais
  - ▶ Oferecem vários serviços agregados (gestão de *bugs*, wikis etc.)
  - ▶ *github* é mais popular
    - » Pertence à Microsoft
    - » Não é software livre
  - ▶ *gitlab* tem uma versão livre
    - » usada, por exemplo, pelo *GNOME*

## **Básico: álbum de fotos**

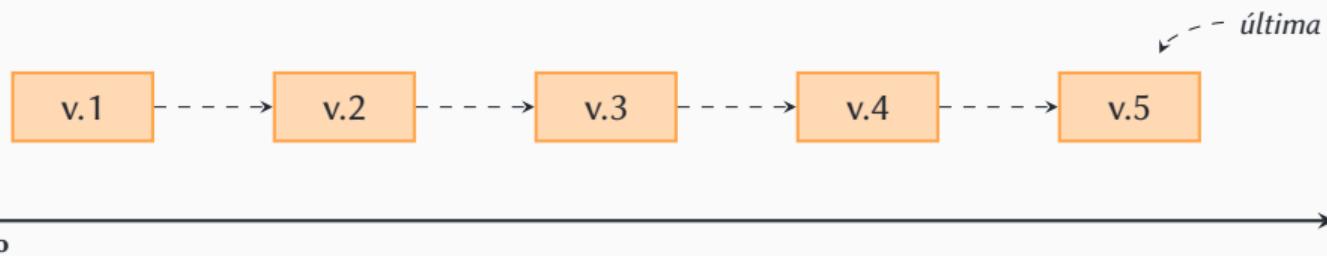
- git armazena o histórico de versões de um projeto



- git armazena o histórico de versões de um projeto
- Isso inclui a ordem das versões no tempo e quem é a “última”



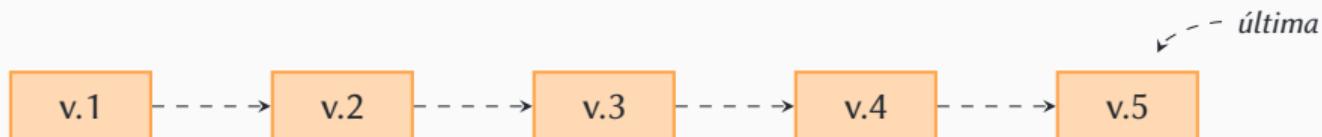
- De onde vêm as versões?



- De onde vêm as versões?

- ▶ São “fotografias” do diretório de trabalho

## Diretório de trabalho (*workdir*)



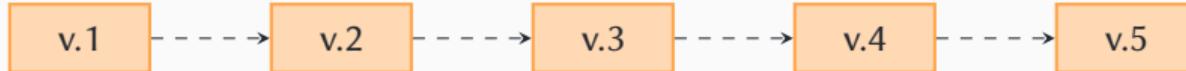
- De onde vêm as versões?

- ▶ São “fotografias” do diretório de trabalho
- ▶ O usuário seleciona “quem aparece” na foto

Diretório de trabalho (*workdir*)



Área de montagem (*staging area*)



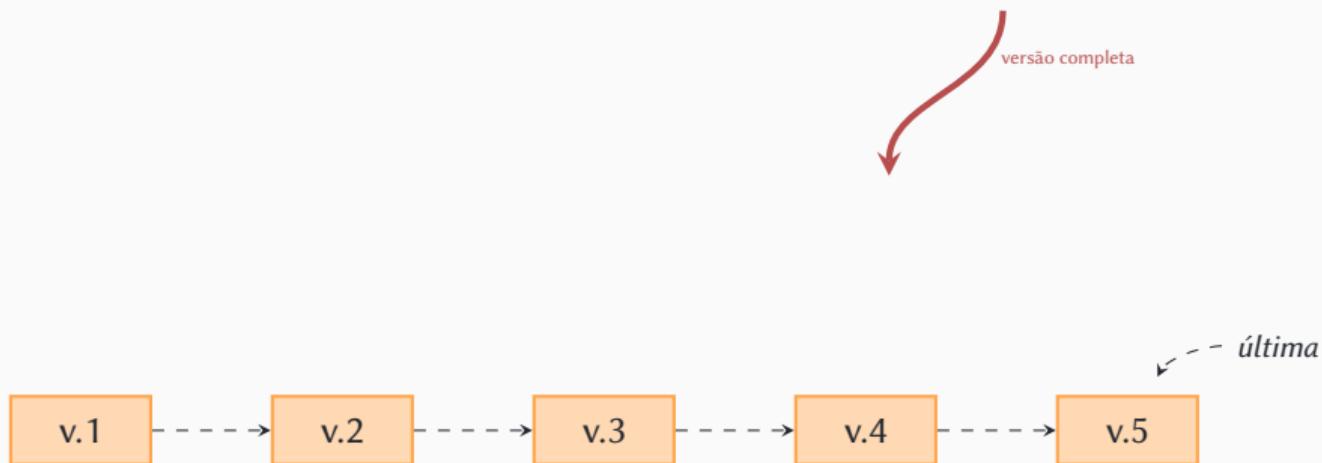
- De onde vêm as versões?

- ▶ São “fotografias” do diretório de trabalho
- ▶ O usuário seleciona “quem aparece” na foto

Diretório de trabalho (*workdir*)



Área de montagem (*staging area*)



# Criando um repositório

## Duas maneiras:

- **git init .**

- ▶ Cria um repositório no diretório atual
  - » *Talvez fosse melhor dizer que ele **transforma** o diretório atual em um repositório*
- ▶ Cria o diretório **.git** (o repositório de fato com as versões e a área de montagem)
- ▶ O diretório atual passa a ser a área de trabalho

- **git clone <URL> .**

- ▶ Executa **git init .**
- ▶ Registra **URL** como um repositório remoto chamado *origin*
- ▶ Copia o repositório *origin* para o repositório local



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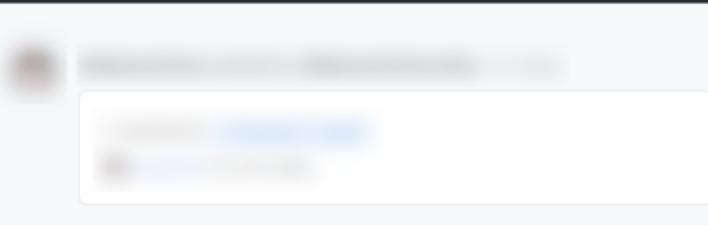
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💡 **ProTip!** The feed shows you events from people you [follow](#) and repositories you [watch](#).

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## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?

[Import a repository.](#)

Owner \*



urrameu

Repository name \*



/

Great repository names are short and memorable. Need inspiration? How about [fantastic-octo-journey](#)?

Description (optional)



**Public**

Anyone on the internet can see this repository. You choose who can commit.



**Private**

You choose who can see and commit to this repository.

### Initialize this repository with:

Skip this step if you're importing an existing repository.

[Add a README file](#)



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Repository name \*

lerolero

Great repository names

lerolero is available. [Create repository](#). Need inspiration? How about [fantastic-octo-journey](#)?

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Great repository names like `lrolero` is available. Cool. Need inspiration? How about `fantastic-octo-journey`?

**Description** (optional)



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Anyone on the internet can see this repository. You choose who can commit.



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You choose who can see and commit to this repository.

**Initialize this repository with:**

Skip this step if you're importing an existing repository.

**Add a README file**

This is where you can write a long description for your project. [Learn more](#).

**Add .gitignore**

Choose which files not to track from a list of templates. [Learn more](#).

**Choose a license**

A license tells others what they can and can't do with your code. [Learn more](#).

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License: [GNU General Public ...](#) ▾

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**Create repository**



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1



0



0

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Wiki

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Insights

Settings

main

1 branch

0 tags

Go to file

Add file

Code



urrameu Initial commit

bc7de60 in 35 seconds 1 commits

LICENSE

Initial commit

now

README.md

Initial commit

now

README.md



# lerolero

## About



No description, website, or topics provided.

Readme

## Releases

No releases published

Create a new release

## Packages

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Settings

main

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Go to file

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1 branch

0 tags

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Add file

Code



urrameu Initial commit

LICENSE

Initial commit

README.md

Initial commit

README.md

# lerolero

Clone

HTTPS SSH GitHub CLI

git@github.com:urrameu/lerolero.git



Use a password-protected SSH key.

Download ZIP

## About

No description, website, or topics provided.

Readme

## Releases

No releases published

Create a new release

## Packages

No packages published

Publish your first package

Arquivo Editar Ver Pesquisar Terminal Ajuda

ada@drivethru:~\$ git clone git@github.com:urrameu/lerolero.git[]

```
ada@drivethru:~$ git clone git@github.com:urrameu/lerolero.git
Cloning into 'lerolero'...
Enter passphrase for key '/home/ada/.ssh/id_rsa':
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), 12.46 KiB | 1.38 MiB/s, done.
ada@drivethru:~$ 
```

```
ada@drivethru:~$ git clone git@github.com:urrameu/lerolero.git
Cloning into 'lerolero'...
Enter passphrase for key '/home/ada/.ssh/id_rsa':
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), 12.46 KiB | 1.38 MiB/s, done.
ada@drivethru:~$ cd lerolero
```

**ada@drivethru:~\$ git clone git@github.com:urrameu/lerolero.git**

Cloning into 'lerolero'...

Enter passphrase for key '/home/ada/.ssh/id\_rsa':

remote: Enumerating objects: 4, done.

remote: Counting objects: 100% (4/4), done.

remote: Compressing objects: 100% (3/3), done.

remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0

Receiving objects: 100% (4/4), 12.46 KiB | 1.38 MiB/s, done.

**ada@drivethru:~\$ cd lerolero**

**ada@drivethru:~/lerolero\$ ls -l**

ada@drivethru:~\$ git clone git@github.com:urrameu/lerolero.git

Cloning into 'lerolero'...

Enter passphrase for key '/home/ada/.ssh/id\_rsa':

remote: Enumerating objects: 4, done.

remote: Counting objects: 100% (4/4), done.

remote: Compressing objects: 100% (3/3), done.

remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0

Receiving objects: 100% (4/4), 12.46 KiB | 1.38 MiB/s, done.

ada@drivethru:~\$ cd lerolero

ada@drivethru:~/lerolero\$ ls -l

total 40

-rw-r--r-- 1 ada ada 35149 nov 16 14:47 LICENSE

-rw-r--r-- 1 ada ada 10 nov 16 14:47 README.md

ada@drivethru:~/lerolero\$ █

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ ls -la

alan@drivethru: ~/lerolero

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ ls -la
total 52
drwxr-xr-x 3 ada ada 4096 nov 16 16:21 .
drwxr-xr-x 4 ada ada 4096 nov 16 16:04 ..
drwxr-xr-x 8 ada ada 4096 nov 16 16:21 .git
-rw-r--r-- 1 ada ada 35149 nov 16 14:47 LICENSE
-rw-r--r-- 1 ada ada     10 nov 16 16:21 README.md
ada@drivethru:~/lerolero$ 
```

alan@drivethru:~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~\$ git clone git@github.com:urrameu/lerolero.git

alan@drivethru: ~

ada@drivethru: ~/lerolero

alan@drivethru: ~

```
alan@drivethru:~$ git clone git@github.com:urrameu/lerolero.git
```

Cloning into 'lerolero'...

Warning: Permanently added the RSA host key for IP address '140.82.114.4' to the list of known hosts.

Enter passphrase for key '/home/alan/.ssh/id\_rsa':

remote: Enumerating objects: 7, done.

remote: Counting objects: 100% (7/7), done.

remote: Compressing objects: 100% (6/6), done.

remote: Total 7 (delta 0), reused 3 (delta 0), pack-reused 0

Receiving objects: 100% (7/7), 12.78 KiB | 4.26 MiB/s, done.

```
alan@drivethru:~$ 
```

# Comandos cotidianos

---

- **git add arquivo**

- ▶ Copia **arquivo** da área de trabalho para a área de montagem
  - » *Não é preciso fazer **git add** com arquivos que não mudaram, só o que efetivamente mudou!*

- **git commit**

- ▶ Copia **o conteúdo completo** da área de montagem para uma nova versão no repositório
  - ▶ Atualiza a indicação de quem é a “última” versão

- **git push**

- ▶ Atualiza o repositório remoto (*origin*)

- **git pull**

- ▶ Atualiza o repositório local (a partir de *origin*)

- **git log e git status**

- **Lição de casa**

- ▶ Aprenda a usar **.gitignore**

Arquivo Editar Ver Pesquisar Terminal Ajuda

ada@drivethru:~/lerolero\$ vi README.md □

# lerolero

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"README.md" [sem fim de linha] 1L, 10C

1,10

Tudo

# lerolero

Um gerador de frases de efeito sem sentido.

# lerolero

Um gerador de frases de efeito sem sentido.

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:wq

Arquivo Editar Ver Pesquisar Terminal Ajuda

ada@drivethru:~/lerolero\$ vi README.md

ada@drivethru:~/lerolero\$ git status

```
ada@drivethru:~/lerolero$ vi README.md
```

```
ada@drivethru:~/lerolero$ git status
```

On branch main

Your branch is up to date with 'origin/main'.

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")

```
ada@drivethru:~/lerolero$ 
```

```
ada@drivethru:~/lerolero$ vi README.md
```

```
ada@drivethru:~/lerolero$ git status
```

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modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

```
ada@drivethru:~/lerolero$ git add README.md □
```

```
ada@drivethru:~/lerolero$ vi README.md
```

```
ada@drivethru:~/lerolero$ git status
```

On branch main

Your branch is up to date with 'origin/main'.

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

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ada@drivethru:~/lerolero$ git add README.md
```

```
ada@drivethru:~/lerolero$ git status
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ada@drivethru:~/lerolero\$ git status

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ada@drivethru:~/lerolero\$ git add README.md

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md

ada@drivethru:~/lerolero\$

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Changes not staged for commit:

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modified: README.md

no changes added to commit (use "git add" and/or "git commit -a")

ada@drivethru:~/lerolero\$ git add README.md

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Changes to be committed:

(use "git reset HEAD <file>..." to unstage)

modified: README.md

ada@drivethru:~/lerolero\$ git commit[]

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch main
# Your branch is up to date with 'origin/main'.
#
# Changes to be committed:
#       modified:   README.md
#
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```

Acrecenta descrição do projeto ao README

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch main
# Your branch is up to date with 'origin/main'.
#
# Changes to be committed:
#       modified:   README.md
#
~
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```

Acrescenta descrição do projeto ao README

```
1 file changed, 3 insertions(+), 1 deletion(-)
ada@drivethru:~/lerolero$ git config --global --edit
ada@drivethru:~/lerolero$ git commit --amend --reset-author^C
ada@drivethru:~/lerolero$ git reset HEAD^
Unstaged changes after reset:
M      README.md
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.

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")
ada@drivethru:~/lerolero$ git add README.md
ada@drivethru:~/lerolero$ git commit
[main b959436] Acrescenta descrição do projeto ao README
  1 file changed, 3 insertions(+), 1 deletion(-)
ada@drivethru:~/lerolero$ █
```

```
1 file changed, 3 insertions(+), 1 deletion(-)
ada@drivethru:~/lerolero$ git config --global --edit
ada@drivethru:~/lerolero$ git commit --amend --reset-author^C
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ada@drivethru:~/lerolero$ git add README.md
ada@drivethru:~/lerolero$ git commit
[main b959436] Acrescenta descrição do projeto ao README
 1 file changed, 3 insertions(+), 1 deletion(-)
ada@drivethru:~/lerolero$ git log[]
```

```
(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")
```

```
ada@drivethru:~/lerolero$ git add README.md
```

```
ada@drivethru:~/lerolero$ git commit
```

```
[main b959436] Acrescenta descrição do projeto ao README
```

```
1 file changed, 3 insertions(+), 1 deletion(-)
```

```
ada@drivethru:~/lerolero$ git log
```

```
commit b959436b99e4e14772cd561b2491321cb1e78402 (HEAD -> main)
```

```
Author: Ada Lovelace <ada@analyticalengine.com>
```

```
Date: Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (origin/main, origin/HEAD)
```

```
Author: Nelson Lago <lago@ime.usp.br>
```

```
Date: Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
ada@drivethru:~/lerolero$ 
```

```
(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")
```

```
ada@drivethru:~/lerolero$ git add README.md
```

```
ada@drivethru:~/lerolero$ git commit
```

```
[main b959436] Acrescenta descrição do projeto ao README
```

```
1 file changed, 3 insertions(+), 1 deletion(-)
```

```
ada@drivethru:~/lerolero$ git log
```

```
commit b959436b99e4e14772cd561b2491321cb1e78402 (HEAD -> main)
```

```
Author: Ada Lovelace <ada@analyticalengine.com>
```

```
Date: Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (origin/main, origin/HEAD)
```

```
Author: Nelson Lago <lago@ime.usp.br>
```

```
Date: Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
ada@drivethru:~/lerolero$ git status
```

```
ada@drivethru:~/lerolero$ git commit  
[main b959436] Acrescenta descrição do projeto ao README  
1 file changed, 3 insertions(+), 1 deletion(-)  
ada@drivethru:~/lerolero$ git log  
commit b959436b99e4e14772cd561b2491321cb1e78402 (HEAD -> main)  
Author: Ada Lovelace <ada@analyticalengine.com>  
Date: Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (origin/main, origin/HEAD)  
Author: Nelson Lago <lago@ime.usp.br>  
Date: Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
ada@drivethru:~/lerolero$ git status  
On branch main  
Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)
```

nothing to commit, working tree clean

```
ada@drivethru:~/lerolero$ 
```

```
ada@drivethru:~/lerolero$ git commit  
[main b959436] Acrescenta descrição do projeto ao README  
1 file changed, 3 insertions(+), 1 deletion(-)  
ada@drivethru:~/lerolero$ git log  
commit b959436b99e4e14772cd561b2491321cb1e78402 (HEAD -> main)  
Author: Ada Lovelace <ada@analyticalengine.com>  
Date: Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (origin/main, origin/HEAD)  
Author: Nelson Lago <lago@ime.usp.br>  
Date: Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
ada@drivethru:~/lerolero$ git status  
On branch main  
Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)
```

nothing to commit, working tree clean

```
ada@drivethru:~/lerolero$ git push
```

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$ git push

Warning: Permanently added the RSA host key for IP address '140.82.112.4' to the list of known hosts.

Enter passphrase for key '/home/ada/.ssh/id\_rsa':

Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 8 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 363 bytes | 363.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0)

To github.com:urrameu/lerolero.git

bc7de60..b959436 main -> main

ada@drivethru:~/lerolero\$

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$ git push

Warning: Permanently added the RSA host key for IP address '140.82.112.4' to the list of known hosts.

Enter passphrase for key '/home/ada/.ssh/id\_rsa':

Enumerating objects: 5, done.

Counting objects: 100% (5/5), done.

Delta compression using up to 8 threads

Compressing objects: 100% (3/3), done.

Writing objects: 100% (3/3), 363 bytes | 363.00 KiB/s, done.

Total 3 (delta 0), reused 0 (delta 0)

To github.com:urrameu/lerolero.git

bc7de60..b959436 main -> main

ada@drivethru:~/lerolero\$ git status

```
Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ git push
```

```
Warning: Permanently added the RSA host key for IP address '140.82.112.4' to th  
e list of known hosts.
```

```
Enter passphrase for key '/home/ada/.ssh/id_rsa':
```

```
Enumerating objects: 5, done.
```

```
Counting objects: 100% (5/5), done.
```

```
Delta compression using up to 8 threads
```

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

```
Writing objects: 100% (3/3), 363 bytes | 363.00 KiB/s, done.
```

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

```
To github.com:urrameu/lerolero.git
```

```
 bc7de60..b959436 main -> main
```

```
ada@drivethru:~/lerolero$ git status
```

```
On branch main
```

```
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~\$ cd lerolero/[]

alan@drivethru: ~

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~\$ cd lerolero/  
alan@drivethru:~/lerolero\$ ls -l

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~$ cd lerolero/  
alan@drivethru:~/lerolero$ ls -l  
total 40  
-rw-r--r-- 1 alan alan 35149 nov 16 15:05 LICENSE  
-rw-r--r-- 1 alan alan     10 nov 16 15:06 README.md  
alan@drivethru:~/lerolero$ 
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~$ cd lerolero/  
alan@drivethru:~/lerolero$ ls -l
```

total 40

```
-rw-r--r-- 1 alan alan 35149 nov 16 15:05 LICENSE  
-rw-r--r-- 1 alan alan     10 nov 16 15:06 README.md
```

```
alan@drivethru:~/lerolero$ git log
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~$ cd lerolero/  
alan@drivethru:~/lerolero$ ls -l
```

```
total 40  
-rw-r--r-- 1 alan alan 35149 nov 16 15:05 LICENSE  
-rw-r--r-- 1 alan alan     10 nov 16 15:06 README.md
```

```
alan@drivethru:~/lerolero$ git log  
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (HEAD -> main, origin/main, origin/HEAD)  
Author: Nelson Lago <lago@ime.usp.br>  
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

```
alan@drivethru:~$ cd lerolero/  
alan@drivethru:~/lerolero$ ls -l
```

```
total 40  
-rw-r--r-- 1 alan alan 35149 nov 16 15:05 LICENSE  
-rw-r--r-- 1 alan alan     10 nov 16 15:06 README.md
```

```
alan@drivethru:~/lerolero$ git log  
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (HEAD -> main, origin/main, origin/HEAD)  
Author: Nelson Lago <lago@ime.usp.br>  
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
alan@drivethru:~/lerolero$ git pull
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
total 40
-rw-r--r-- 1 alan alan 35149 nov 16 15:05 LICENSE
-rw-r--r-- 1 alan alan     10 nov 16 15:06 README.md
```

**alan@drivethru:~/lerolero\$ git log**

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (HEAD -> main, origin/main, origin/HEAD)
```

```
Author: Nelson Lago <lago@ime.usp.br>
```

```
Date: Mon Nov 16 13:53:13 2020 -0300
```

```
Initial commit
```

**alan@drivethru:~/lerolero\$ git pull**

```
Warning: Permanently added the RSA host key for IP address '140.82.112.3' to the list of known hosts.
```

```
Enter passphrase for key '/home/alan/.ssh/id_rsa':
```

```
From github.com:urrameu/lerolero
```

```
 bc7de60..b959436 main      -> origin/main
```

```
Updating bc7de60..b959436
```

```
Fast-forward
```

```
 README.md | 4 +---
```

```
 1 file changed, 3 insertions(+), 1 deletion(-)
```

**alan@drivethru:~/lerolero\$**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
total 40
-rw-r--r-- 1 alan alan 35149 nov 16 15:05 LICENSE
-rw-r--r-- 1 alan alan     10 nov 16 15:06 README.md
```

**alan@drivethru:~/lerolero\$ git log**

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0 (HEAD -> main, origin/main, origin/HEAD)
```

```
Author: Nelson Lago <lago@ime.usp.br>
```

```
Date: Mon Nov 16 13:53:13 2020 -0300
```

```
Initial commit
```

**alan@drivethru:~/lerolero\$ git pull**

```
Warning: Permanently added the RSA host key for IP address '140.82.112.3' to the list of known hosts.
```

```
Enter passphrase for key '/home/alan/.ssh/id_rsa':
```

```
From github.com:urrameu/lerolero
```

```
 bc7de60..b959436 main      -> origin/main
```

```
Updating bc7de60..b959436
```

```
Fast-forward
```

```
 README.md | 4 +---
```

```
 1 file changed, 3 insertions(+), 1 deletion(-)
```

**alan@drivethru:~/lerolero\$ git log**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
Enter passphrase for key '/home/alan/.ssh/id_rsa':  
From github.com:urrameu/lerolero  
  bc7de60..b959436 main      -> origin/main  
Updating bc7de60..b959436  
Fast-forward  
 README.md | 4 +++-  
 1 file changed, 3 insertions(+), 1 deletion(-)
```

```
alan@drivethru:~/lerolero$ git log  
commit b959436b99e4e14772cd561b2491321cble78402 (HEAD -> main, origin/main, origin/HEAD)  
Author: Ada Lovelace <ada@analyticalengine.com>  
Date:   Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0  
Author: Nelson Lago <lago@ime.usp.br>  
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
alan@drivethru:~/lerolero$ 
```

# **Arqueologia: olhando para o passado**

# O que mudou de uma versão para a outra?

**git diff** compara duas versões do projeto

- **git diff ID1 ID2**

- ▶ Mostra todas as alterações em todos os arquivos

- **git diff ID1 ID2 arquivo**

- ▶ Restringe a **arquivo**, mas ainda assim compara versões do projeto

- **git diff ID1 ID2** é diferente de **git diff ID2 ID1**

- ▶ Diferenças **de** uma versão **para** outra versão

# O que mudou de uma versão para a outra?

- **git diff** (sem parâmetros) funciona!
  - ▶ Diferenças da área montagem (*staging area/index*) para a área de trabalho (*workdir*)
- **git diff ID**
  - ▶ Diferenças da *revision/commit ID* para o *workdir*
- **git diff --staged**
  - ▶ Diferenças da última *revision/commit* para a *staging area*
- **git diff --staged ID**
  - ▶ Diferenças da *revision/commit ID* para a *staging area*

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ git log

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ git log

commit b959436b99e4e14772cd561b2491321cb1e78402 (**HEAD -> main, origin/main, origin/HEAD**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago <lago@ime.usp.br>

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

alan@drivethru:~/lerolero\$ □

ada@drivethru: ~/lerolero

**alan@drivethru:~/lerolero\$ git log**commit b959436b99e4e14772cd561b2491321cb1e78402 (**HEAD -> main, origin/main, origin/HEAD**)

Author: Ada Lovelace &lt;ada@analyticalengine.com&gt;

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago &lt;lago@ime.usp.br&gt;

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

**alan@drivethru:~/lerolero\$ git diff bc7de604 b959436b**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago &lt;lago@ime.usp.br&gt;

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

```
alan@drivethru:~/lerolero$ git diff bc7de604 b959436b
diff --git a/README.md b/README.md
index d913469..55f6404 100644
--- a/README.md
+++ b/README.md
@@ -1 +1,3 @@
-# lerolero
\ No newline at end of file
+# lerolero
+
+Um gerador de frases de efeito sem sentido.
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago &lt;lago@ime.usp.br&gt;

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

```
alan@drivethru:~/lerolero$ git diff bc7de604 b959436b
diff --git a/README.md b/README.md
index d913469..55f6404 100644
--- a/README.md
+++ b/README.md
@@ -1 +1,3 @@
-# lerolero
\ No newline at end of file
+# lerolero
+
+Um gerador de frases de efeito sem sentido.
alan@drivethru:~/lerolero$ git diff b959436b bc7de604
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
index d913469..55f6404 100644
```

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

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

```
@@ -1 +1,3 @@
```

```
-# lerolero
```

```
\ No newline at end of file
```

```
+# lerolero
```

```
+
```

```
+Um gerador de frases de efeito sem sentido.
```

alan@drivethru:~/lerolero\$ git diff b959436b bc7de604

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

```
index 55f6404..d913469 100644
```

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

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

```
@@ -1,3 +1 @@
```

```
-# lerolero
```

```
-
```

```
-Um gerador de frases de efeito sem sentido.
```

```
+# lerolero
```

```
\ No newline at end of file
```

alan@drivethru:~/lerolero\$

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
index d913469..55f6404 100644
```

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

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

```
@@ -1 +1,3 @@
```

```
-# lerolero
```

```
\ No newline at end of file
```

```
+# lerolero
```

```
+
```

```
+Um gerador de frases de efeito sem sentido.
```

```
alan@drivethru:~/lerolero$ git diff b959436b bc7de604
```

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

```
index 55f6404..d913469 100644
```

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

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

```
@@ -1,3 +1 @@
```

```
-# lerolero
```

```
-
```

```
-Um gerador de frases de efeito sem sentido.
```

```
+# lerolero
```

```
\ No newline at end of file
```

```
alan@drivethru:~/lerolero$ vi lerolero.py
```

alan@drivethru: ~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/erolero

alan@drivethru: ~/lerolero

--Sem linhas no buffer--

0,0-1

Tudo

ada@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
~
```

alan@drivethru: ~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
~
```

```
~
```

```
:wq
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
--- a/README.md
+++ b/README.md
@@ -1 +1,3 @@
-# lerolero
\ No newline at end of file
+# lerolero
+
+Um gerador de frases de efeito sem sentido.
alan@drivethru:~/lerolero$ git diff b959436b bc7de604
diff --git a/README.md b/README.md
index 55f6404..d913469 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1 @@
-# lerolero
-
-Um gerador de frases de efeito sem sentido.
+# lerolero
\ No newline at end of file
alan@drivethru:~/lerolero$ vi lerolero.py
alan@drivethru:~/lerolero$ git status
```

alan@drivethru: ~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
index 55f6404..d913469 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1 @@
-# lerolero
-
```

-Um gerador de frases de efeito sem sentido.

```
+# lerolero
\ No newline at end of file
```

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

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

lerolero.py

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

alan@drivethru:~/lerolero\$

ada@drivethru: ~/lerolero

```
index 55f6404..d913469 100644
--- a/README.md
+++ b/README.md
@@ -1,3 +1 @@
-# lerolero
-
```

-Um gerador de frases de efeito sem sentido.

```
+# lerolero
\ No newline at end of file
```

```
alan@drivethru:~/lerolero$ vi lerolero.py
```

```
alan@drivethru:~/lerolero$ git status
```

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

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

lerolero.py

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

```
alan@drivethru:~/lerolero$ git diff
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
--- a/README.md
+++ b/README.md
@@ -1,3 +1 @@
"># lerolero
-
-Um gerador de frases de efeito sem sentido.
+# lerolero
```

\ No newline at end of file

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

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

lerolero.py

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

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
--- a/README.md
+++ b/README.md
@@ -1,3 +1 @@
"># lerolero
-
-Um gerador de frases de efeito sem sentido.
+# lerolero
```

\ No newline at end of file

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

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

lerolero.py

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

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$ git add lerolero.py □

alan@drivethru: ~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
+++ b/README.md
@@ -1,3 +1 @@
-# lerolero
-
-Um gerador de frases de efeito sem sentido.
+# lerolero
```

\ No newline at end of file

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

Untracked files:

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

lerolero.py

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

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$ git add lerolero.py

alan@drivethru:~/lerolero\$ git diff

ada@drivethru: ~/lerolero

```
@@ -1,3 +1 @@
-# lerolero
-
-Um gerador de frases de efeito sem sentido.
```

```
+# lerolero
\ No newline at end of file
```

```
alan@drivethru:~/lerolero$ vi lerolero.py
```

```
alan@drivethru:~/lerolero$ git status
```

```
On branch main
```

```
Your branch is up to date with 'origin/main'.
```

#### Untracked files:

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

```
lerolero.py
```

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

```
alan@drivethru:~/lerolero$ git diff
```

```
alan@drivethru:~/lerolero$ git add lerolero.py
```

```
alan@drivethru:~/lerolero$ git diff
```

```
alan@drivethru:~/lerolero$ git diff --staged
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Untracked files:

(use "git add &lt;file&gt;..." to include in what will be committed)

lerolero.py

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

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$ git add lerolero.py

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$ git diff --staged

diff --git a/lerolero.py b/lerolero.py

new file mode 100755

index 0000000..d845a8c

--- /dev/null

+++ b/lerolero.py

@@ -0,0 +1,4 @@

+#!/usr/bin/python3

+"""Gerador de lero-lero.

+

+Gera frases de efeito sem significado real."""

alan@drivethru:~/lerolero\$

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Untracked files:

(use "git add &lt;file&gt;..." to include in what will be committed)

lerolero.py

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

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$ git add lerolero.py

alan@drivethru:~/lerolero\$ git diff

alan@drivethru:~/lerolero\$ git diff --staged

diff --git a/lerolero.py b/lerolero.py

new file mode 100755

index 0000000..d845a8c

--- /dev/null

+++ b/lerolero.py

@@ -0,0 +1,4 @@

+#!/usr/bin/python3

+"""Gerador de lero-lero.

+

+Gera frases de efeito sem significado real."""

alan@drivethru:~/lerolero\$ git commit

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
Cria arquivo inicial do programa
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch main
# Your branch is up to date with 'origin/main'.
#
# Changes to be committed:
#       new file:    lerolero.py
```

Arquivo Editar Ver Pesquisar Terminal Ajuda

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
nothing added to commit but untracked files present (use "git add" to track)
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ git add lerolero.py
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ git diff --staged
diff --git a/lerolero.py b/lerolero.py
new file mode 100755
index 000000..d845a8c
--- /dev/null
+++ b/lerolero.py
@@ -0,0 +1,4 @@
+#!/usr/bin/python3
+"""Gerador de lero-lero.
+
+Gera frases de efeito sem significado real."""
alan@drivethru:~/lerolero$ git commit
[main 97b8937] Cria arquivo inicial do programa
 1 file changed, 4 insertions(+)
 create mode 100755 lerolero.py
alan@drivethru:~/lerolero$ 
```

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
nothing added to commit but untracked files present (use "git add" to track)
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ git add lerolero.py
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ git diff --staged
diff --git a/lerolero.py b/lerolero.py
new file mode 100755
index 000000..d845a8c
--- /dev/null
+++ b/lerolero.py
@@ -0,0 +1,4 @@
+#!/usr/bin/python3
+"""Gerador de lero-lero.
+
+Gera frases de efeito sem significado real."""
alan@drivethru:~/lerolero$ git commit
[main 97b8937] Cria arquivo inicial do programa
 1 file changed, 4 insertions(+)
 create mode 100755 lerolero.py
alan@drivethru:~/lerolero$ git log
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

1 file changed, 4 insertions(+)

create mode 100755 lerolero.py

alan@drivethru:~/lerolero\$ git log

commit 97b89377117481c5d0269ee625fed3e38b628268 (**HEAD -> main**)

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

commit b959436b99e4e14772cd561b2491321cb1e78402 (**origin/main, origin/HEAD**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago <lago@ime.usp.br>

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

alan@drivethru:~/lerolero\$

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

1 file changed, 4 insertions(+)

create mode 100755 lerolero.py

alan@drivethru:~/lerolero\$ git log

commit 97b89377117481c5d0269ee625fed3e38b628268 (**HEAD -> main**)

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

commit b959436b99e4e14772cd561b2491321cb1e78402 (**origin/main, origin/HEAD**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago <lago@ime.usp.br>

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

alan@drivethru:~/lerolero\$ git status

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402 (origin/main, origin/HEAD)
Author: Ada Lovelace <ada@analyticalengine.com>
Date:   Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0
Author: Nelson Lago <lago@ime.usp.br>
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
alan@drivethru:~/lerolero$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

nothing to commit, working tree clean

```
alan@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402 (origin/main, origin/HEAD)
Author: Ada Lovelace <ada@analyticalengine.com>
Date:   Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0
Author: Nelson Lago <lago@ime.usp.br>
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
alan@drivethru:~/lerolero$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

nothing to commit, working tree clean

```
alan@drivethru:~/lerolero$ vi lerolero.py □
```

ada@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
~
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

import random

# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.

parte1 = []
parte2 = []
parte3 = []

# Combina as partes aleatoriamente
print (random.choice(partel), random.choice(parte2), random.choice(parte3))
~
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

import random

# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.

parte1 = []
parte2 = []
parte3 = []

# Combina as partes aleatoriamente
print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
~  
~  
~  
~  
:wq
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402 (origin/main, origin/HEAD)
Author: Ada Lovelace <ada@analyticalengine.com>
Date:   Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0
Author: Nelson Lago <lago@ime.usp.br>
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
alan@drivethru:~/lerolero$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
```

nothing to commit, working tree clean

```
alan@drivethru:~/lerolero$ vi lerolero.py
alan@drivethru:~/lerolero$ git status
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

Initial commit

**alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)

nothing to commit, working tree clean

**alan@drivethru:~/lerolero\$ vi lerolero.py****alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)

Changes not staged for commit:

(use "git add &lt;file&gt;..." to update what will be committed)

(use "git checkout -- &lt;file&gt;..." to discard changes in working directory)

modified: lerolero.py

no changes added to commit (use "git add" and/or "git commit -a")

**alan@drivethru:~/lerolero\$**

ada@drivethru: ~/lerolero

Initial commit

**alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)

nothing to commit, working tree clean

**alan@drivethru:~/lerolero\$ vi lerolero.py****alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)

Changes not staged for commit:

(use "git add &lt;file&gt;..." to update what will be committed)

(use "git checkout -- &lt;file&gt;..." to discard changes in working directory)

modified: lerolero.py

no changes added to commit (use "git add" and/or "git commit -a")

**alan@drivethru:~/lerolero\$ git diff**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
diff --git a/lerolero.py b/lerolero.py
index d845a8c..2af78d8 100755
--- a/lerolero.py
+++ b/lerolero.py
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(partel), random.choice(part2), random.choice(part3))
:[]
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
diff --git a/lerolero.py b/lerolero.py
index d845a8c..2af78d8 100755
--- a/lerolero.py
+++ b/lerolero.py
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(partel), random.choice(part2), random.choice(part3))
alan@drivethru:~/lerolero$ git add lerolero.py
```

ada@drivethru: ~/lerolero

```
index d845a8c..2af78d8 100755  
--- a/lerolero.py  
+++ b/lerolero.py  
@@ -2,3 +2,15 @@  
 """Gerador de lero-lero.
```

Gera frases de efeito sem significado real."""

```
+  
+import random  
+  
+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+  
+parte1 = []  
+parte2 = []  
+parte3 = []  
+  
+# Combina as partes aleatoriamente  
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))  
alan@drivethru:~/lerolero$ git add lerolero.py  
alan@drivethru:~/lerolero$ git diff
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
--- a/lerolero.py
+++ b/lerolero.py
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

```
    Gera frases de efeito sem significado real."""
```

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
alan@drivethru:~/lerolero$ git add lerolero.py
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ git diff --staged
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
diff --git a/lerolero.py b/lerolero.py
index d845a8c..2af78d8 100755
--- a/lerolero.py
+++ b/lerolero.py
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(partel), random.choice(part2), random.choice(part3))
:[]
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
diff --git a/lerolero.py b/lerolero.py
index d845a8c..2af78d8 100755
--- a/lerolero.py
+++ b/lerolero.py
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
alan@drivethru:~/lerolero$ git commit
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
Implementa esqueleto do programa
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch main
# Your branch is ahead of 'origin/main' by 1 commit.
#   (use "git push" to publish your local commits)
#
# Changes to be committed:
#       modified:   lerolero.py
#
~
~
~
~
~
~
~
~
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

+++ b/lerolero.py

@@ -2,3 +2,15 @@

"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

+  
+import random  
+

+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+

+parte1 = []  
+parte2 = []  
+parte3 = []  
+

+# Combina as partes aleatoriamente

+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))

alan@drivethru:~/lerolero\$ git commit

[main f5be676] Implementa esqueleto do programa

1 file changed, 12 insertions(+)

alan@drivethru:~/lerolero\$

alan@drivethru: ~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

+++ b/lerolero.py

@@ -2,3 +2,15 @@

"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

+  
+import random  
+

+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+

+parte1 = []  
+parte2 = []  
+parte3 = []  
+

+# Combina as partes aleatoriamente

+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))

alan@drivethru:~/lerolero\$ git commit

[main f5be676] Implementa esqueleto do programa

1 file changed, 12 insertions(+)

alan@drivethru:~/lerolero\$ git diff

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

Gera frases de efeito sem significado real."""

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
```

```
alan@drivethru:~/lerolero$ git commit
[main f5be676] Implementa esqueleto do programa
 1 file changed, 12 insertions(+)
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

```
@@ -2,3 +2,15 @@
 """Gerador de lero-lero.
```

Gera frases de efeito sem significado real."""

```
+
+import random
+
+# Cada frase é composta por três partes aleatórias; aqui,
+# listas de possibilidades para cada uma das partes.
+
+parte1 = []
+parte2 = []
+parte3 = []
+
+# Combina as partes aleatoriamente
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
```

```
alan@drivethru:~/lerolero$ git commit
[main f5be676] Implementa esqueleto do programa
 1 file changed, 12 insertions(+)
alan@drivethru:~/lerolero$ git diff
alan@drivethru:~/lerolero$ git diff --staged
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
"""Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
+  
+import random  
+  
+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+  
+parte1 = []  
+parte2 = []  
+parte3 = []  
+  
+# Combina as partes aleatoriamente  
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))  
alan@drivethru:~/lerolero$ git commit  
[main f5be676] Implementa esqueleto do programa  
 1 file changed, 12 insertions(+)  
alan@drivethru:~/lerolero$ git diff  
alan@drivethru:~/lerolero$ git diff --staged  
alan@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

```
+  
+import random  
+  
+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+  
+parte1 = []  
+parte2 = []  
+parte3 = []  
+  
+# Combina as partes aleatoriamente  
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))  
alan@drivethru:~/lerolero$ git commit  
[main f5be676] Implementa esqueleto do programa  
 1 file changed, 12 insertions(+)  
alan@drivethru:~/lerolero$ git diff  
alan@drivethru:~/lerolero$ git diff --staged  
alan@drivethru:~/lerolero$ git status
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+  
+parte1 = []  
+parte2 = []  
+parte3 = []  
+  
+# Combina as partes aleatoriamente  
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))  
alan@drivethru:~/lerolero$ git commit  
[main f5be676] Implementa esqueleto do programa  
1 file changed, 12 insertions(+)  
alan@drivethru:~/lerolero$ git diff  
alan@drivethru:~/lerolero$ git diff --staged  
alan@drivethru:~/lerolero$ git status  
On branch main  
Your branch is ahead of 'origin/main' by 2 commits.  
(use "git push" to publish your local commits)  
  
nothing to commit, working tree clean  
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
+# Cada frase é composta por três partes aleatórias; aqui,  
+# listas de possibilidades para cada uma das partes.  
+  
+parte1 = []  
+parte2 = []  
+parte3 = []  
+  
+# Combina as partes aleatoriamente  
+print (random.choice(parte1), random.choice(parte2), random.choice(parte3))  
alan@drivethru:~/lerolero$ git commit  
[main f5be676] Implementa esqueleto do programa  
1 file changed, 12 insertions(+)  
alan@drivethru:~/lerolero$ git diff  
alan@drivethru:~/lerolero$ git diff --staged  
alan@drivethru:~/lerolero$ git status  
On branch main  
Your branch is ahead of 'origin/main' by 2 commits.  
(use "git push" to publish your local commits)  
  
nothing to commit, working tree clean  
alan@drivethru:~/lerolero$ git push
```

alan@drivethru:~/lerolero

```
alan@drivethru:~/lerolero$ git diff --staged
```

```
alan@drivethru:~/lerolero$ git status
```

On branch main

Your branch is ahead of 'origin/main' by 2 commits.

(use "git push" to publish your local commits)

nothing to commit, working tree clean

```
alan@drivethru:~/lerolero$ git push
```

Warning: Permanently added the RSA host key for IP address '140.82.113.4' to the list of known hosts.

Enter passphrase for key '/home/alan/.ssh/id\_rsa':

Enumerating objects: 7, done.

Counting objects: 100% (7/7), done.

Delta compression using up to 8 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (6/6), 775 bytes | 775.00 KiB/s, done.

Total 6 (delta 2), reused 0 (delta 0)

remote: Resolving deltas: 100% (2/2), done.

To github.com:urrameu/lerolero.git

b959436..f5be676 main -> main

```
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git diff --staged
```

```
alan@drivethru:~/lerolero$ git status
```

On branch main

Your branch is ahead of 'origin/main' by 2 commits.  
(use "git push" to publish your local commits)

nothing to commit, working tree clean

```
alan@drivethru:~/lerolero$ git push
```

Warning: Permanently added the RSA host key for IP address '140.82.113.4' to the list of known hosts.

Enter passphrase for key '/home/alan/.ssh/id\_rsa':

Enumerating objects: 7, done.

Counting objects: 100% (7/7), done.

Delta compression using up to 8 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (6/6), 775 bytes | 775.00 KiB/s, done.

Total 6 (delta 2), reused 0 (delta 0)

remote: Resolving deltas: 100% (2/2), done.

To github.com:urrameu/lerolero.git

b959436..f5be676 main -> main

```
alan@drivethru:~/lerolero$ git status
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
nothing to commit, working tree clean
```

```
alan@drivethru:~/lerolero$ git push
```

```
Warning: Permanently added the RSA host key for IP address '140.82.113.4' to th  
e list of known hosts.
```

```
Enter passphrase for key '/home/alan/.ssh/id_rsa':
```

```
Enumerating objects: 7, done.
```

```
Counting objects: 100% (7/7), done.
```

```
Delta compression using up to 8 threads
```

```
Compressing objects: 100% (6/6), done.
```

```
Writing objects: 100% (6/6), 775 bytes | 775.00 KiB/s, done.
```

```
Total 6 (delta 2), reused 0 (delta 0)
```

```
remote: Resolving deltas: 100% (2/2), done.
```

```
To github.com:urrameu/lerolero.git
```

```
 b959436..f5be676 main -> main
```

```
alan@drivethru:~/lerolero$ git status
```

```
On branch main
```

```
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
alan@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git log

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git log

commit b959436b99e4e14772cd561b2491321cb1e78402 (**HEAD -> main, origin/main, origin/HEAD**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago <lago@ime.usp.br>

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

ada@drivethru:~/lerolero\$

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git log

commit b959436b99e4e14772cd561b2491321cb1e78402 (**HEAD -> main, origin/main, origin/HEAD**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago <lago@ime.usp.br>

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

ada@drivethru:~/lerolero\$ git status

ada@drivethru:~/lerolero

**ada@drivethru:~/lerolero\$ git log**commit b959436b99e4e14772cd561b2491321cb1e78402 (**HEAD -> main, origin/main, origin/HEAD**)

Author: Ada Lovelace &lt;ada@analyticalengine.com&gt;

Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

commit bc7de604e736c540ef06e71f1641b19c238ad3a0

Author: Nelson Lago &lt;lago@ime.usp.br&gt;

Date: Mon Nov 16 13:53:13 2020 -0300

Initial commit

**ada@drivethru:~/lerolero\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

**ada@drivethru:~/lerolero\$** □

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git log
commit b959436b99e4e14772cd561b2491321cb1e78402 (HEAD -> main, origin/main, origin/HEAD)
Author: Ada Lovelace <ada@analyticalengine.com>
Date:   Mon Nov 16 14:56:59 2020 -0300
```

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0
Author: Nelson Lago <lago@ime.usp.br>
Date:   Mon Nov 16 13:53:13 2020 -0300
```

Initial commit

```
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
ada@drivethru:~/lerolero$ git pull
```

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
On branch main
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ git pull
```

```
Warning: Permanently added the RSA host key for IP address '140.82.113.3' to th
e list of known hosts.
```

```
Enter passphrase for key '/home/ada/.ssh/id_rsa':
```

```
remote: Enumerating objects: 7, done.
```

```
remote: Counting objects: 100% (7/7), done.
```

```
remote: Compressing objects: 100% (4/4), done.
```

```
remote: Total 6 (delta 2), reused 6 (delta 2), pack-reused 0
```

```
Unpacking objects: 100% (6/6), done.
```

```
From github.com:urrameu/lerolero
```

```
 b959436..f5be676  main      -> origin/main
```

```
Updating b959436..f5be676
```

```
Fast-forward
```

```
 lerolero.py | 16 ++++++=====
 1 file changed, 16 insertions(+)
```

```
 create mode 100755 lerolero.py
```

```
ada@drivethru:~/lerolero$ 
```

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
On branch main
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ git pull
```

```
Warning: Permanently added the RSA host key for IP address '140.82.113.3' to th
e list of known hosts.
```

```
Enter passphrase for key '/home/ada/.ssh/id_rsa':
```

```
remote: Enumerating objects: 7, done.
```

```
remote: Counting objects: 100% (7/7), done.
```

```
remote: Compressing objects: 100% (4/4), done.
```

```
remote: Total 6 (delta 2), reused 6 (delta 2), pack-reused 0
```

```
Unpacking objects: 100% (6/6), done.
```

```
From github.com:urrameu/lerolero
```

```
 b959436..f5be676  main      -> origin/main
```

```
Updating b959436..f5be676
```

```
Fast-forward
```

```
 lerolero.py | 16 ++++++=====
 1 file changed, 16 insertions(+)
```

```
 create mode 100755 lerolero.py
```

```
ada@drivethru:~/lerolero$ git log
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit f5be676elecb3acee26fb12ddc758ee388358e88 (HEAD -> main, origin/main, origin/HEAD)
```

Author: Alan Turing <turing@machine.com>  
Date: Mon Nov 16 15:29:23 2020 -0300

Implementa esqueleto do programa

```
commit 97b89377117481c5d0269ee625fed3e38b628268
```

Author: Alan Turing <turing@machine.com>  
Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402
```

Author: Ada Lovelace <ada@analyticalengine.com>  
Date: Mon Nov 16 14:56:59 2020 -0300

Acrescenta descrição do projeto ao README

```
commit bc7de604e736c540ef06e71f1641b19c238ad3a0
```

:[]

- Com várias pessoas trabalhando ao mesmo tempo...
  - ▶ Como salvar e compartilhar o trabalho em andamento?
  - ▶ Como discutir suas alterações?
  - ▶ Como testar suas alterações?
- A solução são ***branches*** (ramos)
- Um ***branch*** é uma derivação em um ponto do histórico
  - ▶ Do seu ponto de vista, ninguém está fazendo outras alterações no código
  - ▶ Todos podem trabalhar em paralelo sem “pisar no pé” um do outro
- Um ***branch*** para cada conserto ou nova funcionalidade
- Quando está pronto (e testado!)
  - ▶ Mescla alterações recentes do projeto principal ao seu *branch* e **testa novamente**
  - ▶ Mescla o *branch* ao projeto principal

Veja também [www.atlassian.com/git/tutorials/comparing-workflows](http://www.atlassian.com/git/tutorials/comparing-workflows)

# Branches e merges

- **git branch <NOME>**
  - ▶ Cria um novo *branch* (ramo) **NOME** a partir do *branch* atual
- **git switch <NOME> (antigamente: git checkout <NOME>)**
  - ▶ Faz o *branch* **NOME** ser o *branch* atual
    - » Atualiza o *workdir* e a *staging area*
    - » O próximo **commit** atualiza o *branch* **NOME**
- **git branch**
  - ▶ Lista os *branches*
    - » O repositório “nasce” com um *branch* pronto: **master** ou **main**

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git status

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
ada@drivethru:~/lerolero$ git status
```

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

```
ada@drivethru:~/lerolero$ git branch
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$ git branch

\* main

ada@drivethru:~/lerolero\$

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$ git branch

\* main

ada@drivethru:~/lerolero\$ git branch ingles

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$ git branch

\* main

ada@drivethru:~/lerolero\$ git branch ingles

ada@drivethru:~/lerolero\$ git branch

ada@drivethru:~/lerolero

ada@drivethru:~/lerolero\$ git status

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$ git branch

\* main

ada@drivethru:~/lerolero\$ git branch ingles

ada@drivethru:~/lerolero\$ git branch

  ingles

\* main

ada@drivethru:~/lerolero\$

ada@drivethru: ~/lerolero

```
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
ada@drivethru:~/lerolero$ git branch
* main
ada@drivethru:~/lerolero$ git branch ingles
ada@drivethru:~/lerolero$ git branch
  ingles
* main
ada@drivethru:~/lerolero$ git switch ingles
```

alan@drivethru: ~/lerolero

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean
ada@drivethru:~/lerolero$ git branch
* main
ada@drivethru:~/lerolero$ git branch ingles
ada@drivethru:~/lerolero$ git branch
  ingles
* main
ada@drivethru:~/lerolero$ git switch ingles
Switched to branch 'ingles'
ada@drivethru:~/lerolero$ 
```

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

**ada@drivethru:~/lerolero\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

**ada@drivethru:~/lerolero\$ git branch**

\* main

**ada@drivethru:~/lerolero\$ git branch ingles****ada@drivethru:~/lerolero\$ git branch**

ingles

\* main

**ada@drivethru:~/lerolero\$ git switch ingles**

Switched to branch 'ingles'

**ada@drivethru:~/lerolero\$ git branch** □

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ git branch
```

```
* main
```

```
ada@drivethru:~/lerolero$ git branch ingles
```

```
ada@drivethru:~/lerolero$ git branch
```

```
  ingles
```

```
* main
```

```
ada@drivethru:~/lerolero$ git switch ingles
```

```
Switched to branch 'ingles'
```

```
ada@drivethru:~/lerolero$ git branch
```

```
* ingles
```

```
  main
```

```
ada@drivethru:~/lerolero$ 
```

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ git branch
```

```
* main
```

```
ada@drivethru:~/lerolero$ git branch ingles
```

```
ada@drivethru:~/lerolero$ git branch
```

```
  ingles
```

```
* main
```

```
ada@drivethru:~/lerolero$ git switch ingles
```

```
Switched to branch 'ingles'
```

```
ada@drivethru:~/lerolero$ git branch
```

```
* ingles
```

```
  main
```

```
ada@drivethru:~/lerolero$ vi lerolero.py □
```

alan@drivethru:~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
```

```
"""Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,  
# listas de possibilidades para cada uma das partes.
```

```
parte1 = []
```

```
parte2 = []
```

```
parte3 = []
```

```
# Combina as partes aleatoriamente
```

```
print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
```

```
~
```

```
~
```

```
~
```

```
~
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,  
# listas de possibilidades para cada uma das partes.
```

```
parte1 = []  
parte2 = []  
parte3 = []
```

```
# Combina as partes aleatoriamente
```

```
print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
```

```
~  
~  
~  
~  
~  
~  
~  
~  
~
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,  
# listas de possibilidades para cada uma das partes.
```

```
parte1 = []
```

```
parte2 = []
```

```
parte3 = []
```

```
lingua = int(input("Escolha a língua: 1 - português; 2 - inglês\n "))
```

```
print()
```

```
if lingua == 2:
```

```
    parte1 = []
```

```
    parte2 = []
```

```
    parte3 = []
```

```
# Combina as partes aleatoriamente
```

```
print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
import random

# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.

parte1 = []
parte2 = []
parte3 = []

lingua = int(input("Escolha a língua: 1 - português; 2 - inglês\n"))

print()

if lingua == 2:
    parte1 = []
    parte2 = []
    parte3 = []

# Combina as partes aleatoriamente
print (random.choice(parte1), random.choice(parte2), random.choice(parte3))

:wq
```

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is up to date with 'origin/main'.
```

```
nothing to commit, working tree clean
```

```
ada@drivethru:~/lerolero$ git branch
```

```
* main
```

```
ada@drivethru:~/lerolero$ git branch ingles
```

```
ada@drivethru:~/lerolero$ git branch
```

```
  ingles
```

```
* main
```

```
ada@drivethru:~/lerolero$ git switch ingles
```

```
Switched to branch 'ingles'
```

```
ada@drivethru:~/lerolero$ git branch
```

```
* ingles
```

```
  main
```

```
ada@drivethru:~/lerolero$ vi lerolero.py
```

```
ada@drivethru:~/lerolero$ git add lerolero.py
```

alan@drivethru:~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git commit[]

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Cria esqueleto da versão multi-língua

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

#

# On branch ingles

# Changes to be committed:

# modified: lerolero.py

#

~

~

~

~

~

~

~

~

~

~

~

~

~

ada@drivethru: ~/lerolero

```
ada@drivethru:~/lerolero$ git commit  
[ingles 8eef1bc] Cria esqueleto da versão multi-línguas  
1 file changed, 9 insertions(+)
```

alan@drivethru: ~/lerolero

```
ada@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ vi lerolero.py □

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
```

```
"""Gerador de lero-lero.
```

```
Gera frases de efeito sem significado real."""
```

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,  
# listas de possibilidades para cada uma das partes.
```

```
parte1 = []
```

```
parte2 = []
```

```
parte3 = []
```

```
# Combina as partes aleatoriamente
```

```
print (random.choice(parte1), random.choice(parte2), random.choice(parte3))
```

```
~
```

```
~
```

```
~
```

```
~
```

```
"lerolero.py" 16L, 371C
```

```
1,1
```

```
Tudo
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
parte1 = [
    "0 sistema em desenvolvimento",
    "0 novo protocolo de comunicação",
    "0 algoritmo otimizado"
]
```

```
parte2 = [
    "possui excelente desempenho",
    "oferece garantias de precisão acima da média",
    "preenche uma lacuna significativa"
]
```

```
parte3 = [
    "nas aplicações a que se destina",
    "em relação às opções disponíveis no mercado",
    "e provê ampla vantagem competitiva a seus usuários"
]
```

```
# Combina as partes aleatoriamente
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git add lerolero.py

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ vi lerolero.py
alan@drivethru:~/lerolero$ git add lerolero.py
alan@drivethru:~/lerolero$ git commit
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Insere os trechos das frases

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch main
# Your branch is up to date with 'origin/main'.
#
# Changes to be committed:
#       modified:   lerolero.py
#
~
```

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ vi lerolero.py
alan@drivethru:~/lerolero$ git add lerolero.py
alan@drivethru:~/lerolero$ git commit
[main 06c9aa6] Insere os trechos das frases
 1 file changed, 17 insertions(+), 3 deletions(-)
alan@drivethru:~/lerolero$ 
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ vi lerolero.py
alan@drivethru:~/lerolero$ git add lerolero.py
alan@drivethru:~/lerolero$ git commit
[main 06c9aa6] Insere os trechos das frases
 1 file changed, 17 insertions(+), 3 deletions(-)
alan@drivethru:~/lerolero$ git log
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (HEAD -> main)
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:58:02 2020 -0300

Insere os trechos das frases

```
commit f5be676elecb3acee26fb12ddc758ee388358e88 (origin/main, origin/HEAD)
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:29:23 2020 -0300

Implementa esqueleto do programa

```
commit 97b89377117481c5d0269ee625fed3e38b628268
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402
```

Author: Ada Lovelace <ada@analyticalengine.com>

:[]

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (HEAD -> main)
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:58:02 2020 -0300

Insere os trechos das frases

```
commit f5be676elecb3acee26fb12ddc758ee388358e88 (origin/main, origin/HEAD)
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:29:23 2020 -0300

Implementa esqueleto do programa

```
commit 97b89377117481c5d0269ee625fed3e38b628268
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402
```

Author: Ada Lovelace <ada@analyticalengine.com>

```
alan@drivethru:~/lerolero$ git push
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit 97b89377117481c5d0269ee625fed3e38b628268
Author: Alan Turing <turing@machine.com>
Date:   Mon Nov 16 15:24:35 2020 -0300
```

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402
Author: Ada Lovelace <ada@analyticalengine.com>
alan@drivethru:~/lerolero$ git push
Enter passphrase for key '/home/alan/.ssh/id_rsa':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 693 bytes | 693.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To github.com:urrameu/lerolero.git
  f5be676..06c9aa6 main -> main
alan@drivethru:~/lerolero$ 
```

## Branches e merges

- **git merge <NOME>**

- ▶ Mescla o *branch* **NOME** na área de trabalho
- ▶ Faz **commit** do resultado no *branch* atual

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git log

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcd6 (**HEAD -> ingles**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 15:55:56 2020 -0300

Cria esqueleto da versão multi-línguas

commit f5be676elecb3acee26fb12ddc758ee388358e88 (**origin/main, origin/HEAD, main**)

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:29:23 2020 -0300

Implementa esqueleto do programa

commit 97b89377117481c5d0269ee625fed3e38b628268

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

commit b959436b99e4e14772cd561b2491321cb1e78402

:[]

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcfd6 (**HEAD -> ingles**)

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 15:55:56 2020 -0300

Cria esqueleto da versão multi-línguas

commit f5be676elecb3acee26fb12ddc758ee388358e88 (**origin/main, origin/HEAD, main**)

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:29:23 2020 -0300

Implementa esqueleto do programa

commit 97b89377117481c5d0269ee625fed3e38b628268

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:24:35 2020 -0300

Cria arquivo inicial do programa

commit b959436b99e4e14772cd561b2491321cb1e78402

**ada@drivethru:~/lerolero\$ git switch main**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Cria esqueleto da versão multi-línguas

```
commit f5be676elecb3acee26fb12ddc758ee388358e88 (origin/main, origin/HEAD, main)
Author: Alan Turing <turing@machine.com>
Date: Mon Nov 16 15:29:23 2020 -0300
```

Implementa esqueleto do programa

```
commit 97b89377117481c5d0269ee625fed3e38b628268
Author: Alan Turing <turing@machine.com>
Date: Mon Nov 16 15:24:35 2020 -0300
```

Cria arquivo inicial do programa

```
commit b959436b99e4e14772cd561b2491321cb1e78402
ada@drivethru:~/lerolero$ git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
ada@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git pull --no-rebase

alan@drivethru: ~/lerolero

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), 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), 673 bytes | 336.00 KiB/s, done.
From github.com:urrameu/lerolero
  f5be676..06c9aa6  main      -> origin/main
Updating f5be676..06c9aa6
Fast-forward
  lerolero.py | 20 ++++++-----+
   1 file changed, 17 insertions(+), 3 deletions(-)
ada@drivethru:~/lerolero$ 
```

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), 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), 673 bytes | 336.00 KiB/s, done.
From github.com:urrameu/lerolero
  f5be676..06c9aa6  main      -> origin/main
Updating f5be676..06c9aa6
Fast-forward
  lerolero.py | 20 ++++++-----+
   1 file changed, 17 insertions(+), 3 deletions(-)
ada@drivethru:~/lerolero$ git merge ingles
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

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

~  
~  
~  
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~  
~  
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~

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), 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), 673 bytes | 336.00 KiB/s, done.
From github.com:urrameu/lerolero
  f5be676..06c9aa6  main      -> origin/main
Updating f5be676..06c9aa6
Fast-forward
  lerolero.py | 20 ++++++-----+
   1 file changed, 17 insertions(+), 3 deletions(-)
ada@drivethru:~/lerolero$ git merge ingles
Auto-merging lerolero.py
Merge made by the 'recursive' strategy.
  lerolero.py |  9 ++++++++
   1 file changed, 9 insertions(+)
ada@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit fbb48fcfb3cd5f61e6dccc2d05554292283607be (HEAD -> main)
Merge: 06c9aa6 8eef1bc
Author: Ada Lovelace <ada@analyticalengine.com>
Date:   Mon Nov 16 16:04:21 2020 -0300
```

Merge branch 'ingles' into main

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (origin/main, origin/HEAD)
Author: Alan Turing <turing@machine.com>
Date:   Mon Nov 16 15:58:02 2020 -0300
```

Insere os trechos das frases

```
commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcd6 (ingles)
Author: Ada Lovelace <ada@analyticalengine.com>
Date:   Mon Nov 16 15:55:56 2020 -0300
```

Cria esqueleto da versão multi-línguas

```
commit f5be676elecb3acee26fb12ddc758ee388358e88
```

```
:[]
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit fbb48fcfb3cd5f61e6dccc2d05554292283607be (HEAD -> main)
```

Merge: 06c9aa6 8eef1bc

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 16:04:21 2020 -0300

Merge branch 'ingles' into main

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (origin/main, origin/HEAD)
```

Author: Alan Turing <turing@machine.com>

Date: Mon Nov 16 15:58:02 2020 -0300

Insere os trechos das frases

```
commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcd6 (ingles)
```

Author: Ada Lovelace <ada@analyticalengine.com>

Date: Mon Nov 16 15:55:56 2020 -0300

Cria esqueleto da versão multi-línguas

```
commit f5be676elecb3acee26fb12ddc758ee388358e88
```

:[]

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit fbb48fcfb3cd5f61e6dccc2d05554292283607be (HEAD -> main)
Merge: 06c9aa6 8eef1bc
Author: Ada Lovelace <ada@analyticalengine.com>
Date: Mon Nov 16 16:04:21 2020 -0300
```

Merge branch 'ingles' into main

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (origin/main, origin/HEAD)
Author: Alan Turing <turing@machine.com>
Date: Mon Nov 16 15:58:02 2020 -0300
```

Insere os trechos das frases

```
commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcd6 (ingles)
Author: Ada Lovelace <ada@analyticalengine.com>
Date: Mon Nov 16 15:55:56 2020 -0300
```

Cria esqueleto da versão multi-línguas

```
commit f5be676elecb3acee26fb12ddc758ee388358e88
ada@drivethru:~/lerolero$ git status
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (origin/main, origin/HEAD)
Author: Alan Turing <turing@machine.com>
Date: Mon Nov 16 15:58:02 2020 -0300
```

Insere os trechos das frases

```
commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcd6 (ingles)
Author: Ada Lovelace <ada@analyticalengine.com>
Date: Mon Nov 16 15:55:56 2020 -0300
```

Cria esqueleto da versão multi-línguas

```
commit f5be676elecb3acee26fb12ddc758ee388358e88
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)
```

nothing to commit, working tree clean

ada@drivethru:~/lerolero\$

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit 06c9aa6d045fa5055bfe30c75d475cd33243e7fc (origin/main, origin/HEAD)
Author: Alan Turing <turing@machine.com>
Date: Mon Nov 16 15:58:02 2020 -0300
```

Insere os trechos das frases

```
commit 8eef1bcff9beb02f4ef7a8868f147d64a6b6fcd6 (ingles)
Author: Ada Lovelace <ada@analyticalengine.com>
Date: Mon Nov 16 15:55:56 2020 -0300
```

Cria esqueleto da versão multi-línguas

```
commit f5be676elecb3acee26fb12ddc758ee388358e88
ada@drivethru:~/lerolero$ git status
On branch main
Your branch is ahead of 'origin/main' by 2 commits.
  (use "git push" to publish your local commits)
```

```
nothing to commit, working tree clean
ada@drivethru:~/lerolero$ git push
```

ada@drivethru: ~/lerolero

```
commit f5be676elecb3acee26fb12ddc758ee388358e88
```

```
ada@drivethru:~/lerolero$ git status
```

On branch main

Your branch is ahead of 'origin/main' by 2 commits.

(use "git push" to publish your local commits)

nothing to commit, working tree clean

```
ada@drivethru:~/lerolero$ git push
```

Warning: Permanently added the RSA host key for IP address '140.82.114.4' to the list of known hosts.

Enter passphrase for key '/home/ada/.ssh/id\_rsa':

Enumerating objects: 10, done.

Counting objects: 100% (10/10), done.

Delta compression using up to 8 threads

Compressing objects: 100% (6/6), done.

Writing objects: 100% (6/6), 723 bytes | 361.00 KiB/s, done.

Total 6 (delta 4), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (4/4), completed with 2 local objects.

To github.com:urrameu/lerolero.git

06c9aa6..fbb48fc main -> main

```
ada@drivethru:~/lerolero$ 
```

# Branches e merges

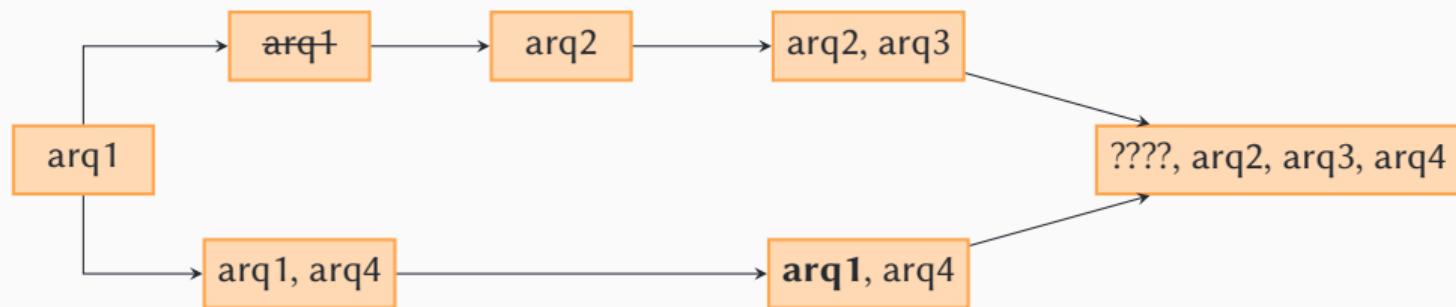
---

- **git merge <NOME>**

- ▶ Mescla o *branch* **NOME** na área de trabalho
- ▶ Faz **commit** do resultado no *branch* atual

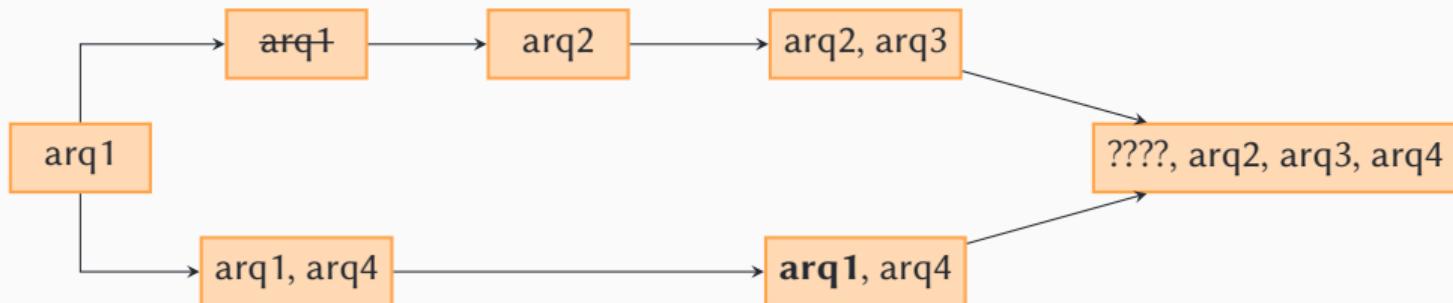
# Branches e merges

- **git merge <NOME>**
  - Mescla o *branch* **NOME** na área de trabalho
  - Faz **commit** do resultado no *branch* atual
- O que acontece se, numa mescla, dois *branches* modificaram o mesmo arquivo?



# Branches e merges

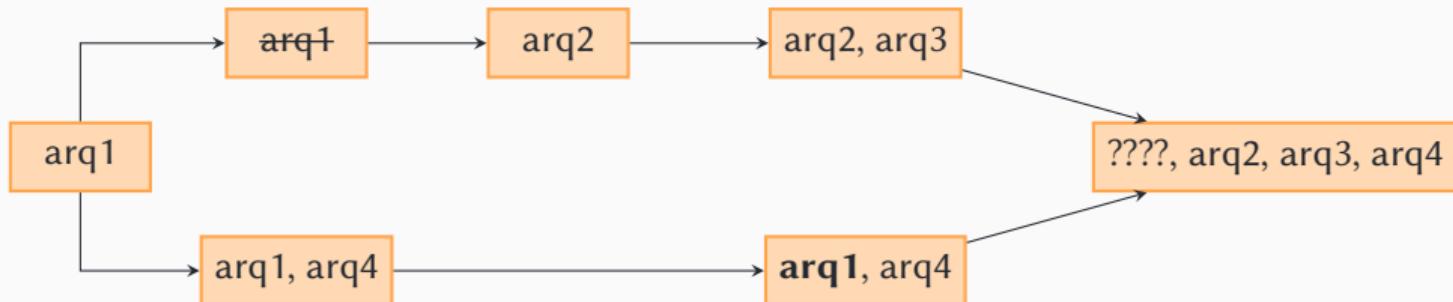
- **git merge <NOME>**
  - Mescla o *branch* **NOME** na área de trabalho
  - Faz **commit** do resultado no *branch* atual
- O que acontece se, numa mescla, dois *branches* modificaram o mesmo arquivo?



- git vai indicar que houve um *conflito*

# Branches e merges

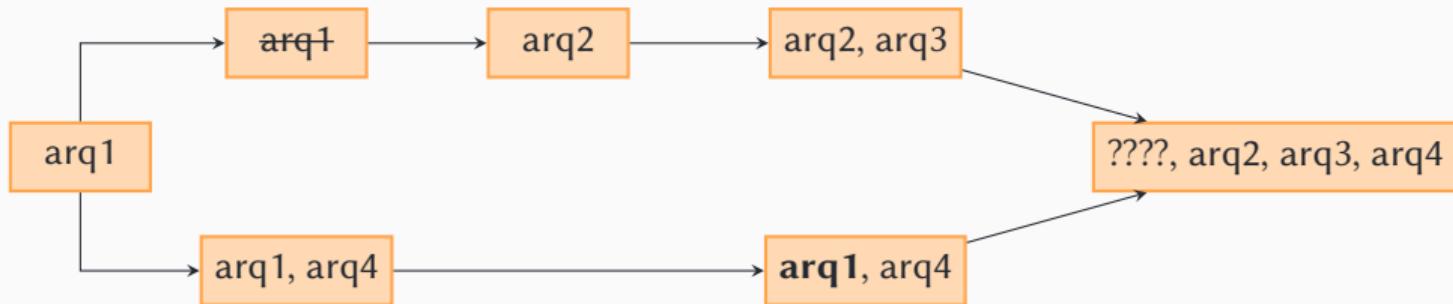
- **git merge <NOME>**
  - ▶ Mescla o *branch* **NOME** na área de trabalho
  - ▶ Faz **commit** do resultado no *branch* atual
- O que acontece se, numa mescla, dois *branches* modificaram o mesmo arquivo?



- git vai indicar que houve um *conflito*
  - ▶ git mescla o que é possível

# Branches e merges

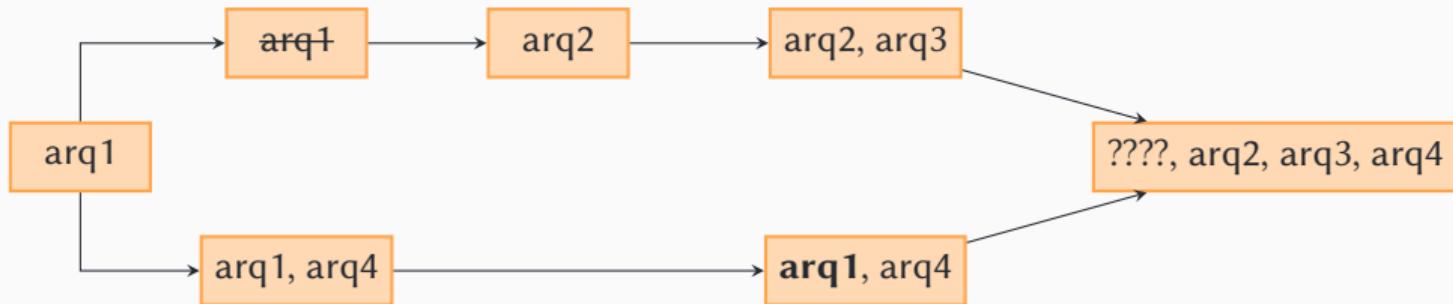
- **git merge <NOME>**
  - ▶ Mescla o *branch* **NOME** na área de trabalho
  - ▶ Faz **commit** do resultado no *branch* atual
- O que acontece se, numa mescla, dois *branches* modificaram o mesmo arquivo?



- git vai indicar que houve um *conflito*
  - ▶ git mescla o que é possível
  - ▶ O usuário soluciona manualmente os conflitos restantes

# Branches e merges

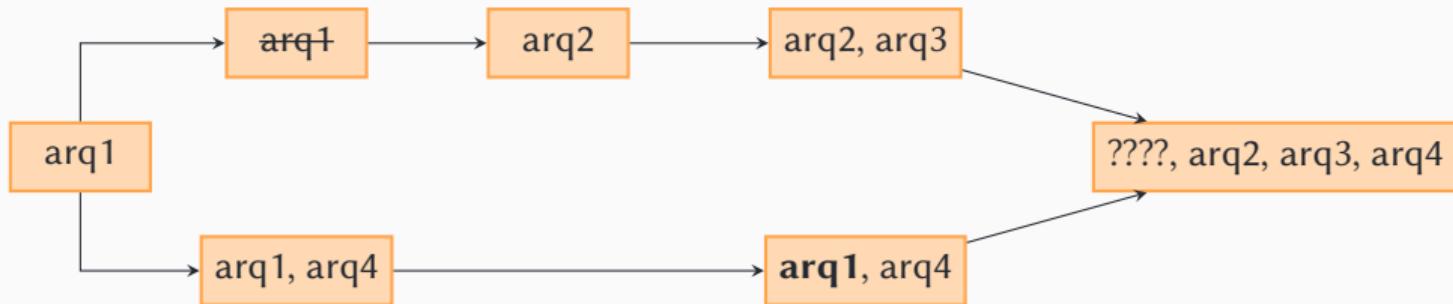
- **git merge <NOME>**
  - ▶ Mescla o *branch* **NOME** na área de trabalho
  - ▶ Faz **commit** do resultado no *branch* atual
- O que acontece se, numa mescla, dois *branches* modificaram o mesmo arquivo?



- git vai indicar que houve um *conflito*
  - ▶ git mescla o que é possível
  - ▶ O usuário soluciona manualmente os conflitos restantes
  - ▶ **git add** (informa que o conflito foi resolvido)

# Branches e merges

- **git merge <NOME>**
  - ▶ Mescla o *branch* **NOME** na área de trabalho
  - ▶ Faz **commit** do resultado no *branch* atual
- O que acontece se, numa mescla, dois *branches* modificaram o mesmo arquivo?



- git vai indicar que houve um *conflito*
  - ▶ git mescla o que é possível
  - ▶ O usuário soluciona manualmente os conflitos restantes
  - ▶ **git add** (informa que o conflito foi resolvido)
  - ▶ **git merge --continue / git merge --abort**

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ git pull --no-rebase[]

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
alan@drivethru:~/lerolero$ git switch estilo
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
alan@drivethru:~/lerolero$ git switch estilo
Switched to branch 'estilo'
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
alan@drivethru:~/lerolero$ git switch estilo
Switched to branch 'estilo'
alan@drivethru:~/lerolero$ git branch □
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
alan@drivethru:~/lerolero$ git switch estilo
Switched to branch 'estilo'
alan@drivethru:~/lerolero$ git branch
* estilo
  main
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
alan@drivethru:~/lerolero$ git switch estilo
Switched to branch 'estilo'
alan@drivethru:~/lerolero$ git branch
* estilo
  main
alan@drivethru:~/lerolero$ vi lerolero.py □
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

```

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.
```

```
parte1 = [
    "0 sistema em desenvolvimento",
    "0 novo protocolo de comunicação",
    "0 algoritmo otimizado"
]
```

```
parte2 = [
    "possui excelente desempenho",
    "oferece garantias de precisão acima da média",
    "preenche uma lacuna significativa"
]
```

```
"lerolero.py" 39L, 927C
```

13,40-38

Topo

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""


```

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.
```

```
parte1 = [
    "0 sistema em desenvolvimento",
    "0 novo protocolo de comunicação",
    "0 algoritmo de otimiza o"
]
```

```
parte2 = [
    "possui excelente desempenho",
    "oferece garantias de preciso o acima da m dia",
    "preenche uma lacuna significativa"
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.
From github.com:urrameu/lerolero
  06c9aa6..fbb48fc  main      -> origin/main
Updating 06c9aa6..fbb48fc
Fast-forward
  lerolero.py | 9 ++++++++
  1 file changed, 9 insertions(+)
alan@drivethru:~/lerolero$ git branch estilo
alan@drivethru:~/lerolero$ git switch estilo
Switched to branch 'estilo'
alan@drivethru:~/lerolero$ git branch
* estilo
  main
alan@drivethru:~/lerolero$ vi lerolero.py
alan@drivethru:~/lerolero$ git add lerolero.py
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
Enter passphrase for key '/home/alan/.ssh/id_rsa':  
remote: Enumerating objects: 10, done.  
remote: Counting objects: 100% (10/10), done.  
remote: Compressing objects: 100% (2/2), done.  
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0  
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.  
From github.com:urrameu/lerolero  
 06c9aa6..fbb48fc main      -> origin/main  
Updating 06c9aa6..fbb48fc  
Fast-forward  
  lerolero.py | 9 ++++++++  
 1 file changed, 9 insertions(+)  
alan@drivethru:~/lerolero$ git branch estilo  
alan@drivethru:~/lerolero$ git switch estilo  
Switched to branch 'estilo'  
alan@drivethru:~/lerolero$ git branch  
* estilo  
  main  
alan@drivethru:~/lerolero$ vi lerolero.py  
alan@drivethru:~/lerolero$ git add lerolero.py  
alan@drivethru:~/lerolero$ git commit
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Melhora um dos textos

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

```
#
```

```
# On branch estilo
```

```
# Changes to be committed:
```

```
#       modified:   lerolero.py
```

```
#
```

```
~
```

```
~
```

```
~
```

```
~
```

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~
```

```
~
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
remote: Compressing objects: 100% (2/2), done.  
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0  
Unpacking objects: 100% (6/6), 703 bytes | 175.00 KiB/s, done.  
From github.com:urrameu/lerolero
```

```
 06c9aa6..fbb48fc main      -> origin/main
```

```
Updating 06c9aa6..fbb48fc
```

```
Fast-forward
```

```
 lerolero.py | 9 ++++++++
```

```
 1 file changed, 9 insertions(+)
```

```
alan@drivethru:~/lerolero$ git branch estilo
```

```
alan@drivethru:~/lerolero$ git switch estilo
```

```
Switched to branch 'estilo'
```

```
alan@drivethru:~/lerolero$ git branch
```

```
* estilo
```

```
  main
```

```
alan@drivethru:~/lerolero$ vi lerolero.py
```

```
alan@drivethru:~/lerolero$ git add lerolero.py
```

```
alan@drivethru:~/lerolero$ git commit
```

```
[estilo a5c1574] Melhora um dos textos
```

```
 1 file changed, 1 insertion(+), 1 deletion(-)
```

```
alan@drivethru:~/lerolero$ 
```

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

ada@drivethru:~/lerolero\$ git pull --no-rebase

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Already up to date.
ada@drivethru:~/lerolero$ 
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Already up to date.
ada@drivethru:~/lerolero$ vi lerolero.py □
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
# Cada frase é composta por três partes aleatórias; aqui,  
# listas de possibilidades para cada uma das partes.
```

```
parte1 = [  
    "0 sistema em desenvolvimento",  
    "0 novo protocolo de comunicação",  
    "0 algoritmo otimizado"  
]
```

```
parte2 = [  
    "possui excelente desempenho",  
    "oferece garantias de precisão acima da média",  
    "preenche uma lacuna significativa"  
]
```

```
parte3 = [  
    "nas aplicações a que se destina",  
    "em relação às opções disponíveis no mercado",  
    "e provê ampla vantagem competitiva a seus usuários"  
]
```

"lerolero.py" 39L, 927C

14,18

36%

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
# Cada frase é composta por três partes aleatórias; aqui,  
# listas de possibilidades para cada uma das partes.
```

```
parte1 = [  
    "O sistema em desenvolvimento",  
    "O novo protocolo de comunicação",  
    "O algoritmo foi otimizado e"  
]
```

```
parte2 = [  
    "possui excelente desempenho",  
    "oferece garantias de precisão acima da média",  
    "preenche uma lacuna significativa"  
]
```

```
parte3 = [  
    "nas aplicações a que se destina",  
    "em relação às opções disponíveis no mercado",  
    "e provê ampla vantagem competitiva a seus usuários"  
]
```

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Already up to date.
ada@drivethru:~/lerolero$ vi lerolero.py
ada@drivethru:~/lerolero$ git add lerolero.py
```

alan@drivethru:~/lerolero

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
```

```
Enter passphrase for key '/home/ada/.ssh/id_rsa':  
Already up to date.
```

```
ada@drivethru:~/lerolero$ vi lerolero.py
```

```
ada@drivethru:~/lerolero$ git add lerolero.py
```

```
ada@drivethru:~/lerolero$ git commit
```

alan@drivethru:~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Modifica frase sobre otimização

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch main
# Your branch is up to date with 'origin/main'.
#
# Changes to be committed:
#       modified:   lerolero.py
#
~
```

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Already up to date.
ada@drivethru:~/lerolero$ vi lerolero.py
ada@drivethru:~/lerolero$ git add lerolero.py
ada@drivethru:~/lerolero$ git commit
[main b8ff49f] Modifica frase sobre otimização
 1 file changed, 1 insertion(+), 1 deletion(-)
ada@drivethru:~/lerolero$ 
```

alan@drivethru:~/lerolero

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Already up to date.
ada@drivethru:~/lerolero$ vi lerolero.py
ada@drivethru:~/lerolero$ git add lerolero.py
ada@drivethru:~/lerolero$ git commit
[main b8ff49f] Modifica frase sobre otimização
 1 file changed, 1 insertion(+), 1 deletion(-)
ada@drivethru:~/lerolero$ git push
```

alan@drivethru:~/lerolero

ada@drivethru:~/lerolero

```
ada@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Already up to date.
```

```
ada@drivethru:~/lerolero$ vi lerolero.py
ada@drivethru:~/lerolero$ git add lerolero.py
ada@drivethru:~/lerolero$ git commit
[main b8ff49f] Modifica frase sobre otimização
 1 file changed, 1 insertion(+), 1 deletion(-)
ada@drivethru:~/lerolero$ git push
```

```
Enter passphrase for key '/home/ada/.ssh/id_rsa':
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 8 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 326 bytes | 326.00 KiB/s, done.
Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To github.com:urrameu/lerolero.git
 fbb48fc..b8ff49f main -> main
ada@drivethru:~/lerolero$ 
```

alan@drivethru:~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ git status

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git status
On branch estilo
nothing to commit, working tree clean
alan@drivethru:~/lerolero$ 
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

**alan@drivethru:~/lerolero\$ git status**

On branch estilo

nothing to commit, working tree clean

**alan@drivethru:~/lerolero\$ git switch main**

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git status
On branch estilo
nothing to commit, working tree clean
alan@drivethru:~/lerolero$ git switch main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.
alan@drivethru:~/lerolero$
```

alan@drivethru: ~/lerolero

Arquivo Editar Ver Pesquisar Terminal Abas Ajuda

ada@drivethru: ~/lerolero

alan@drivethru:~/lerolero\$ git pull --no-rebase[]

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 2), reused 3 (delta 2), pack-reused 0
Unpacking objects: 100% (3/3), 306 bytes | 153.00 KiB/s, done.
From github.com:urrameu/lerolero
  fbb48fc..b8ff49f  main      -> origin/main
Updating fbb48fc..b8ff49f
Fast-forward
 lerolero.py | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 2), reused 3 (delta 2), pack-reused 0
Unpacking objects: 100% (3/3), 306 bytes | 153.00 KiB/s, done.
From github.com:urrameu/lerolero
  fbb48fc..b8ff49f  main      -> origin/main
Updating fbb48fc..b8ff49f
Fast-forward
  lerolero.py | 2 +-
  1 file changed, 1 insertion(+), 1 deletion(-)
alan@drivethru:~/lerolero$ git merge estilo
```

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 2), reused 3 (delta 2), pack-reused 0
Unpacking objects: 100% (3/3), 306 bytes | 153.00 KiB/s, done.
From github.com:urrameu/lerolero
  fbb48fc..b8ff49f  main      -> origin/main
Updating fbb48fc..b8ff49f
Fast-forward
 lerolero.py | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
alan@drivethru:~/lerolero$ git merge estilo
Auto-merging lerolero.py
CONFLICT (content): Merge conflict in lerolero.py
Automatic merge failed; fix conflicts and then commit the result.
alan@drivethru:~/lerolero$ 
```

ada@drivethru: ~/lerolero

```
alan@drivethru:~/lerolero$ git pull --no-rebase
Enter passphrase for key '/home/alan/.ssh/id_rsa':
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 2), reused 3 (delta 2), pack-reused 0
Unpacking objects: 100% (3/3), 306 bytes | 153.00 KiB/s, done.
From github.com:urrameu/lerolero
  fbb48fc..b8ff49f  main      -> origin/main
Updating fbb48fc..b8ff49f
Fast-forward
 lerolero.py | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
alan@drivethru:~/lerolero$ git merge estilo
Auto-merging lerolero.py
CONFLICT (content): Merge conflict in lerolero.py
Automatic merge failed; fix conflicts and then commit the result.
alan@drivethru:~/lerolero$ git status
```

alan@drivethru: ~/lerolero

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Fast-forward

lerolero.py | 2 +-

1 file changed, 1 insertion(+), 1 deletion(-)

**alan@drivethru:~/lerolero\$ git merge estilo**

Auto-merging lerolero.py

CONFLICT (content): Merge conflict in lerolero.py

Automatic merge failed; fix conflicts and then commit the result.

**alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

You have unmerged paths.

(fix conflicts and run "git commit")

(use "git merge --abort" to abort the merge)

Unmerged paths:

(use "git add &lt;file&gt;..." to mark resolution)

**both modified: lerolero.py**

no changes added to commit (use "git add" and/or "git commit -a")

**alan@drivethru:~/lerolero\$**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Fast-forward

lerolero.py | 2 +-

1 file changed, 1 insertion(+), 1 deletion(-)

**alan@drivethru:~/lerolero\$ git merge estilo**

Auto-merging lerolero.py

CONFLICT (content): Merge conflict in lerolero.py

Automatic merge failed; fix conflicts and then commit the result.

**alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

You have unmerged paths.

(fix conflicts and run "git commit")

(use "git merge --abort" to abort the merge)

Unmerged paths:

(use "git add &lt;file&gt;..." to mark resolution)

**both modified: lerolero.py**

no changes added to commit (use "git add" and/or "git commit -a")

**alan@drivethru:~/lerolero\$ vi lerolero.py**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""

import random

# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.

partel = [
    "O sistema em desenvolvimento",
    "O novo protocolo de comunicação",
<<<<< HEAD
    "O algoritmo foi otimizado e"
=====
    "O algoritmo de otimização"
>>>>> estilo
]
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
#!/usr/bin/python3
"""Gerador de lero-lero.

Gera frases de efeito sem significado real."""


```

```
import random
```

```
# Cada frase é composta por três partes aleatórias; aqui,
# listas de possibilidades para cada uma das partes.
```

```
parte1 = [
    "O sistema em desenvolvimento",
    "O novo protocolo de comunicação",
    "O algoritmo foi otimizado e"
]
```

```
parte2 = [
    "possui excelente desempenho",
    "oferece garantias de precisão acima da média",
    "preenche uma lacuna significativa"
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
lerolero.py | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)
alan@drivethru:~/lerolero$ git merge estilo
Auto-merging lerolero.py
CONFLICT (content): Merge conflict in lerolero.py
Automatic merge failed; fix conflicts and then commit the result.
alan@drivethru:~/lerolero$ git status
```

On branch main  
Your branch is up to date with 'origin/main'.

You have unmerged paths.  
(fix conflicts and run "git commit")  
(use "git merge --abort" to abort the merge)

Unmerged paths:  
(use "git add <file>..." to mark resolution)  
**both modified:** **lerolero.py**

no changes added to commit (use "git add" and/or "git commit -a")  
alan@drivethru:~/lerolero\$ vi lerolero.py  
alan@drivethru:~/lerolero\$ git add lerolero.py

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
1 file changed, 1 insertion(+), 1 deletion(-)
```

```
alan@drivethru:~/lerolero$ git merge estilo
```

```
Auto-merging lerolero.py
```

```
CONFLICT (content): Merge conflict in lerolero.py
```

```
Automatic merge failed; fix conflicts and then commit the result.
```

```
alan@drivethru:~/lerolero$ git status
```

```
On branch main
```

```
Your branch is up to date with 'origin/main'.
```

```
You have unmerged paths.
```

```
(fix conflicts and run "git commit")
```

```
(use "git merge --abort" to abort the merge)
```

```
Unmerged paths:
```

```
(use "git add <file>..." to mark resolution)
```

```
    both modified:   lerolero.py
```

```
no changes added to commit (use "git add" and/or "git commit -a")
```

```
alan@drivethru:~/lerolero$ vi lerolero.py
```

```
alan@drivethru:~/lerolero$ git add lerolero.py
```

```
alan@drivethru:~/lerolero$ git merge --continue
```

ada@drivethru: ~/lerolero

```
Merge branch 'estilo' into main
```

```
# Conflicts:  
#       lerolero.py  
#  
# It looks like you may be committing a merge.  
# If this is not correct, please remove the file  
#       .git/MERGE_HEAD  
# and try again.
```

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

```
#  
# On branch main  
# Your branch is up to date with 'origin/main'.  
#
```

```
# All conflicts fixed but you are still merging.  
#  
~
```

```
"~/lerolero/.git/COMMIT_EDITMSG" 19L, 450C
```

```
1,1
```

```
Tudo
```

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Auto-merging lerolero.py

CONFLICT (content): Merge conflict in lerolero.py

Automatic merge failed; fix conflicts and then commit the result.

**alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

You have unmerged paths.

(fix conflicts and run "git commit")

(use "git merge --abort" to abort the merge)

Unmerged paths:

(use "git add <file>..." to mark resolution)

both modified: lerolero.py

no changes added to commit (use "git add" and/or "git commit -a")

**alan@drivethru:~/lerolero\$ vi lerolero.py**

**alan@drivethru:~/lerolero\$ git add lerolero.py**

**alan@drivethru:~/lerolero\$ git merge --continue**

[main b82cb8e] Merge branch 'estilo' into main

**alan@drivethru:~/lerolero\$** □

ada@drivethru: ~/lerolero

Auto-merging lerolero.py

CONFLICT (content): Merge conflict in lerolero.py

Automatic merge failed; fix conflicts and then commit the result.

**alan@drivethru:~/lerolero\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

You have unmerged paths.

(fix conflicts and run "git commit")

(use "git merge --abort" to abort the merge)

Unmerged paths:

(use "git add &lt;file&gt;..." to mark resolution)

both modified: lerolero.py

no changes added to commit (use "git add" and/or "git commit -a")

**alan@drivethru:~/lerolero\$ vi lerolero.py****alan@drivethru:~/lerolero\$ git add lerolero.py****alan@drivethru:~/lerolero\$ git merge --continue**

[main b82cb8e] Merge branch 'estilo' into main

**alan@drivethru:~/lerolero\$ git push**

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

Unmerged paths:

(use "git add <file>..." to mark resolution)  
both modified: lerolero.py

no changes added to commit (use "git add" and/or "git commit -a")

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git add lerolero.py

alan@drivethru:~/lerolero\$ git merge --continue  
[main b82cb8e] Merge branch 'estilo' into main

alan@drivethru:~/lerolero\$ git push

Enter passphrase for key '/home/alan/.ssh/id\_rsa':

Enumerating objects: 8, done.

Counting objects: 100% (8/8), done.

Delta compression using up to 8 threads

Compressing objects: 100% (4/4), done.

Writing objects: 100% (4/4), 503 bytes | 503.00 KiB/s, done.

Total 4 (delta 2), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (2/2), completed with 2 local objects.

To github.com:urrameu/lerolero.git

b8ff49f..b82cb8e main -&gt; main

alan@drivethru:~/lerolero\$

ada@drivethru:~/lerolero

alan@drivethru:~/lerolero

Unmerged paths:

(use "git add <file>..." to mark resolution)  
both modified: lerolero.py

no changes added to commit (use "git add" and/or "git commit -a")

alan@drivethru:~/lerolero\$ vi lerolero.py

alan@drivethru:~/lerolero\$ git add lerolero.py

alan@drivethru:~/lerolero\$ git merge --continue  
[main b82cb8e] Merge branch 'estilo' into main

alan@drivethru:~/lerolero\$ git push

Enter passphrase for key '/home/alan/.ssh/id\_rsa':

Enumerating objects: 8, done.

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Delta compression using up to 8 threads

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Total 4 (delta 2), reused 0 (delta 0), pack-reused 0

remote: Resolving deltas: 100% (2/2), completed with 2 local objects.

To github.com:urrameu/lerolero.git

b8ff49f..b82cb8e main -&gt; main

alan@drivethru:~/lerolero\$ git log

ada@drivethru: ~/lerolero

alan@drivethru: ~/lerolero

```
commit b82cb8e2b53c4de62d179a9ee2ab576941cd43c1 (HEAD -> main, origin/main, origin/HEAD)
```

```
Merge: b8ff49f a5c1574
```

```
Author: Alan Turing <turing@machine.com>
```

```
Date: Mon Nov 16 17:45:48 2020 -0300
```

Merge branch 'estilo' into main

```
commit b8ff49f229e9930e9f1dfa67fbc00390c87dfc4b
```

```
Author: Ada Lovelace <ada@analyticalengine.com>
```

```
Date: Mon Nov 16 17:41:39 2020 -0300
```

Modifica frase sobre otimização

```
commit a5c157468450d33350750113f76c11210a5f7e97 (estilo)
```

```
Author: Alan Turing <turing@machine.com>
```

```
Date: Mon Nov 16 17:38:56 2020 -0300
```

Melhora um dos textos

:|



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urrameu / lerolero

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main

1 branch

0 tags

Go to file

Add file

Code



Alan Turing Merge branch 'estilo' into main

b82cb8e 13 minutes ago 10 commits

LICENSE

Initial commit

4 hours ago

README.md

Acrescenta descrição do projeto ao README

3 hours ago

lerolero.py

Modifica frase sobre otimização

18 minutes ago

README.md



# lerolero

Um gerador de frases de efeito sem sentido.

## About



No description, website, or topics provided.

Readme

GPL-3.0 License

## Releases

No releases published

Create a new release

## Packages

No packages published

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seg 16 de nov 18:08  
lerolero: --all - gith

pt ▾ 100% ▾

Arquivo Editar Exibir Ajuda

main remotes/origin/main Merge branch 'estilo' into main

Melhora um dos textos  
Modifica frase sobre otimização  
Merge branch 'ingles' into main  
Cria esqueleto da versão multi-línguas  
Insere os trechos das frases  
Implementa esqueleto do programa  
Cria arquivo inicial do programa  
Acrescenta descrição do projeto ao README  
Initial commit

SHA1 ID: b82cb8e2b53c4de62d179a9ee2ab576941cd43c1 ↵ Linha 1/ 10 | Exatamente Todos os campos

Encontrar ↕ Revisão conteúdo:

Buscar

• Diferenças • Versão antiga • Versão nova Número de

Autor: Alan Turing <turing@machine.com> 2020-11-16 17:45:48  
Revisor: Alan Turing <turing@machine.com> 2020-11-16 17:38:56  
Antecessor: b8ff49f229e9930e9f1dfa67fbcc00390c87c  
Antecessor: a5c157468450d33350750113f76c11210a5  
Ramo: [main](#), [remotes/origin/main](#)

Segue:  
Precede:

Merge branch 'estilo' into main

Author	Date
Alan Turing <turing@machine.com>	2020-11-16 17:45:48
Alan Turing <turing@machine.com>	2020-11-16 17:38:56
Ada Lovelace <ada@analyticalengir.com>	2020-11-16 17:41:39
Ada Lovelace <ada@analyticalengir.com>	2020-11-16 16:04:21
Ada Lovelace <ada@analyticalengir.com>	2020-11-16 15:55:56
Alan Turing <turing@machine.com>	2020-11-16 15:58:02
Alan Turing <turing@machine.com>	2020-11-16 15:29:23
Alan Turing <turing@machine.com>	2020-11-16 15:24:35
Ada Lovelace <ada@analyticalengir.com>	2020-11-16 14:56:59
Nelson Lago <lago@ime.usp.br>	2020-11-16 13:53:13

- **git possui *hooks* (“ganchos”)**

- ▶ *hooks* permitem que você “pendure” ações adicionais em algum comando
    - » *gitlab e github possuem outros mecanismos de automação, mas a ideia é similar*

- **Por exemplo, você pode “pendurar” um script em **git commit****

- ▶ Esse script pode notificar outros usuários sobre a nova versão, verificar se há erros etc.
    - » *Uma ideia interessante é garantir que todo **commit** execute os testes do programa*
    - » *Em caso de falha nos testes, o script pode notificar o usuário de diversas maneiras*