

Git e GitHub

SHA

A sigla SHA significa (Secure Hash Algorithm - Algoritmo de Hash Seguro), é um conjunto de funções criptográficas projetadas pela NSA(Agência de Segurança Nacional dos EUA)

A encriptação gera conjunto de caracteres indetificador de 40 dígitos.
Forma de Identificar os "Arquivos" de maneira segura.

Exemplo:

```
1 echo "ola mundo" | openssl sha1
2 > (stdin)= f9fc856e559b95d175f2b7cd7dad61facbe58e7b
```

Objetos Internos do Git

BLOBS

TREES

COMMITs

Estrutura Basica de um Blob

```
tree
0000000000000000000000000000000000000000000000000000000000000000
parent
author
committer
message
timestamp
```

Estrutura Basica de um Tree

```
tree
0000000000000000000000000000000000000000000000000000000000000000
parent
author
committer
message
timestamp
```

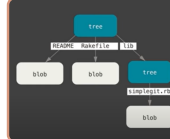
Estrutura Basica de um Commit

```
tree
parent
author
committer
message
timestamp
```

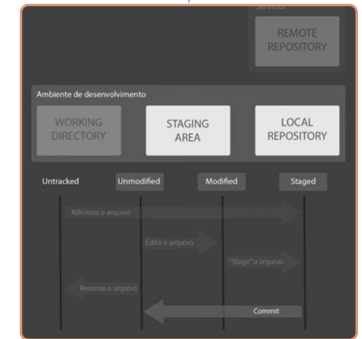
Ele armazena meta dados
Exemplo:

```
1 echo "conteudo" | git hash-object --stdin
2 > fc31e91b26cf85a55e072476de7f263c89260eb1
3
4 echo -e 'blob 9\@conteudo' | openssl sha1
5 > fc31e91b26cf85a55e072476de7f263c89260eb1
```

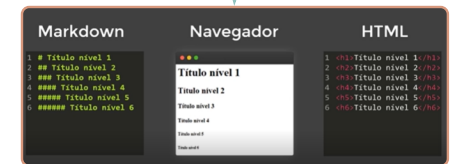
Exemplo:



Gerenciamento de arquivos no GIT



Tipo de texto Markdown



Chave SSH e Tokens

Chave SSH
Chave para verificar e autenticar o usuário no GITHUB.

Gerar Chave no GitBash:
(ssh-keygen -t ed25519 -C juniorportellaa@gmail.com)

```
git@perlles-desktop:~$ ssh-keygen -t ed25519 -C juniorportellaa@gmail.com
Generating public/private ed25519 key pair.
Enter passphrase (empty for no passphrase):
Enter same passphrase again:
Your identification has been saved in /home/juniorportellaa/.ssh/id_ed25519.pub
Your public key has been saved in /home/juniorportellaa/.ssh/id_ed25519.pub
The key fingerprint is:
SHA256:AAAC3NzACL2D11NTE5AAA13mhduq7P4gAap7b5SPsath200yKq9LNF/x9W06V
The key's randomart image is:
[+]

```

```
git@perlles-desktop:~$ cat /home/juniorportellaa/.ssh/id_ed25519.pub
ssh-ed25519 AAAAC3NzACL2D11NTE5AAA13mhduq7P4gAap7b5SPsath200yKq9LNF/x9W06V juniorportellaa@gmail.com
git@perlles-desktop:~$
```

```
-ls
-ls -a
-cd
-cd ..
-mkdir
-status
-git commit -m "html"
-git push origin "html"
git clone
git add
git rm
git remote add
git remote -v
git init
```