Git

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Install

- sudo apt install git -y

- git --version

config

- List current config:
  - git config --list

- Initial branch:
  - git config --global init.defaultBranch main

- Set your identity:
  - git config --global user.name "name"
  - git config --global user.email "email@xxx.com"

- Save your credentials:
  - git config --global credential.helper store

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init

- Create an empty Git repository or reinitialize an existing one;

- git init

clone

- Clone a repository into a new directory;

- git clone <url | path> [name]
  - git clone https://github.com/lsampaioweb/git-scripts-and-tips.git

status

Show the working tree status;

git status

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ 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 restore <file>..." to discard changes in working directory)
        modified:   README.md

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

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

add

- Add file contents to the index;

- git add <file1 file2 | . >

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git add .
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md
        new file:   file.txt
```

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restore

- Restore working tree files;

- git restore <--staged> <file1 file2 | . >

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git restore --staged README.md
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   file.txt

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   README.md
```

commit

Record changes to the repository;

git commit -m "message"

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git commit -m "added file.txt"
[main e942dcf] added file.txt
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 file.txt
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ 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
```

push

- Update remote refs along with associated objects;

- git push

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git push
Username for 'https://github.com': lsampaioweb@gmail.com
Password for 'https://lsampaioweb@gmail.com@github.com':
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 4 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 279 bytes | 279.00 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 https://github.com/lsampaioweb/git-scripts-and-tips.git
   07375d0..e942dcf  main -> main
```

pull

- Fetch from and integrate with another repository or a local branch;

- git pull

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git pull
Already up to date.
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git pull
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (8/8), done.
remote: Total 9 (delta 1), reused 9 (delta 1), pack-reused 0
Unpacking objects: 100% (9/9), 240.87 KiB | 576.00 KiB/s, done.
From https://github.com/lsampaioweb/git-scripts-and-tips
   4e5ff51..780ceba  main        -> origin/main
Updating 4e5ff51..780ceba
Fast-forward
 file.txt                       |   0
 file2.txt                      |   0
 file3.txt                      |   0
 file4.txt                      |   0
 images/git-add.png             | Bin 0 -> 35920 bytes
 images/git-commit.png          | Bin 0 -> 45884 bytes
 images/git-pull.png            | Bin 0 -> 11482 bytes
 images/git-push.png            | Bin 0 -> 64301 bytes
 images/git-restore-staged.png  | Bin 0 -> 54279 bytes
 images/git-status.png          | Bin 0 -> 47834 bytes
 10 files changed, 0 insertions(+), 0 deletions(-)
 delete mode 100644 file.txt
 delete mode 100644 file2.txt
 delete mode 100644 file3.txt
 delete mode 100644 file4.txt
 create mode 100644 images/git-add.png
 create mode 100644 images/git-commit.png
 create mode 100644 images/git-pull.png
 create mode 100644 images/git-push.png
 create mode 100644 images/git-restore-staged.png
 create mode 100644 images/git-status.png
```

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log

- Show commit logs;

- git log

```
lsampaio@DUD-JumpServer:~/git/git-scripts-and-tips$ git log
commit 780ceba4df22f54bd094f3e97559a6cf4970aafc (HEAD -> main, origin/main, origin/HEAD)
Author: Luciano Sampaio Martins de Souza <lsampaioweb@gmail.com>
Date:   Fri Sep 23 22:30:21 2022 -0300

    images

commit 4e5ff51ff8f87d182d3ab13c537d42cb1ce95d9c
Author: Luciano Sampaio <lsampaioweb@gmail.com>
Date:   Fri Sep 23 22:26:05 2022 -0300

    file4

commit 47a630cbca3067be2dff679fe3097bb568879e1d
Author: Luciano Sampaio <lsampaioweb@gmail.com>
Date:   Fri Sep 23 22:19:56 2022 -0300

    other file2

commit fd603304be9a92da89927f44931ac5dc027236f4
Author: Luciano Sampaio <lsampaioweb@gmail.com>
Date:   Fri Sep 23 22:18:56 2022 -0300

    other file

commit e942dcf90800103903fd8b55fd5b61c462954e17
Author: Luciano Sampaio <lsampaioweb@gmail.com>
Date:   Fri Sep 23 22:05:45 2022 -0300
```

References

- Git Documentation
  https://git-scm.com/doc

Questions ?

Thank you!

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