

# **GIT and GITHUB**

- Version Control
- Cloud Storage
- Teamwork
- Improve your code
- Recognition

## GUI x CLI

(Graphical User Interface) x (Command Line Interface)

## SHA1

(Secure Hash Algorithm)

- Encryption of codes
- Example: “`openssl sha1 texto.txt`”

## BLOB

Files stay store in BLOB object, that keeps only file's SHA1.

## TREE

Store all structure – blob, directories, and file's name (metadata of trees).

## COMMIT

Gives meaning to all, taking the author's name (has its own SHA1).

## SSH Key

Cryptography to transference between two machines.

## Codes to upload a repository

- cd <project's folder>
- git init
- git add \*
- git commit -m "initial commit"
- git status
- git config --list  
*(This one show git properties on local system)*
- git remote add origin <repository link>
- git push origin master

Clone some repository to your machine

- git clone <repository link>

Setting global properties

- git config --global user.email "<github email>"
- git config --global user.name "<github nickname>"
- git config --global --unset user.email  
*(This one remove email propriety on local system)*

Markdown: file.md

Showing all repositories and your configuration

- git remote -v

## Merge conflict

Occurs when a public repository has changes on same line of code between two or more people.

It's needed to be solved manually by taking the different files, putting them together and then push back to github.

- git pull origin master
- git status  
*(Show merge file, making possible to modify)*
- git add \*
- git commit -m "Solving conflicts"
- git push origin master