

Sistema de Control de versiones

Git y GitHub

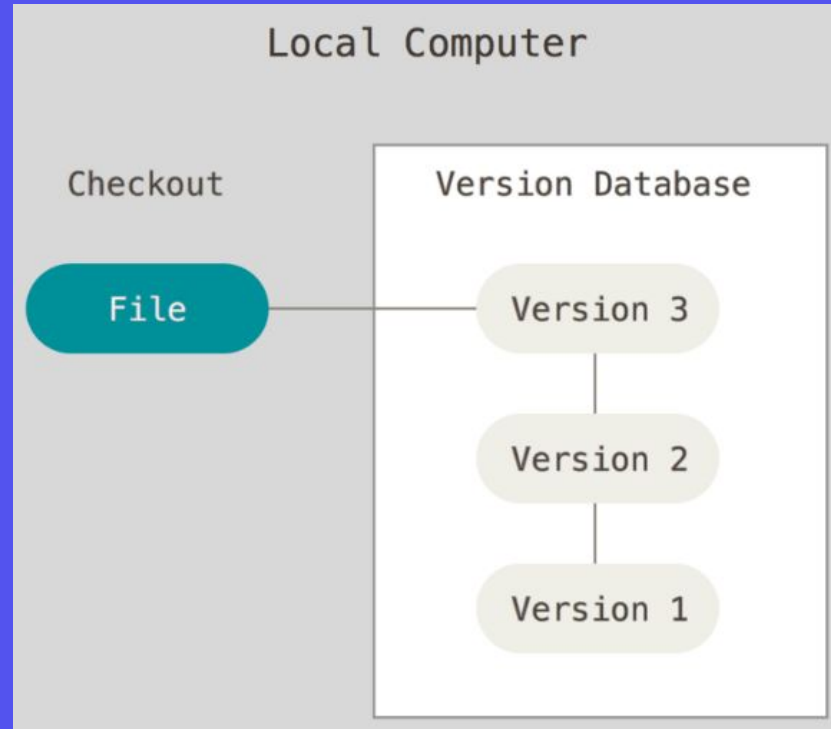
Septiembre | 2025 | Nicolás J. Salazar Echeverry

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¿Qué es un Sistema de Control de Versiones?

Es un **programa** que registra cambios sobre un archivo o conjunto de archivos sobre el **tiempo** de tal manera que sea posible devolverse a versiones específicas



Tomado de [1]

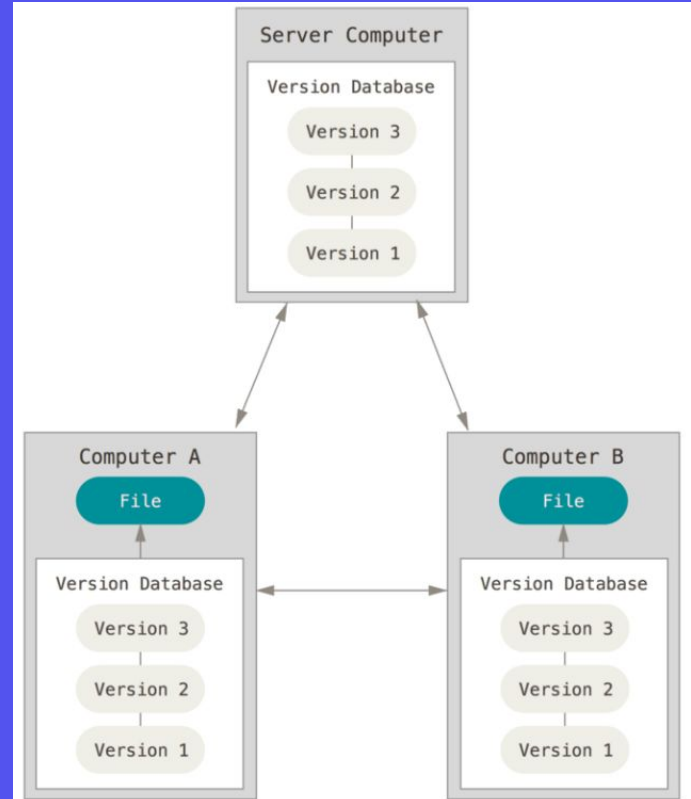
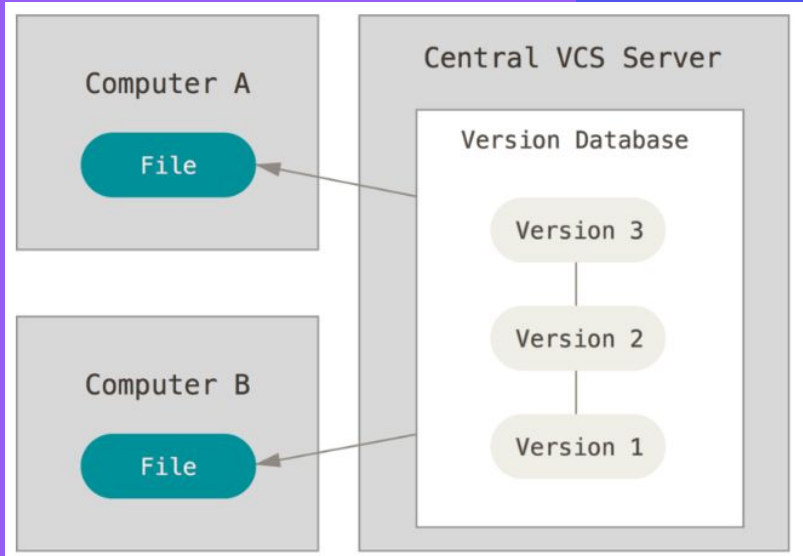
¿Qué es git?

Es un sistema de control de versiones distribuido, gratuito y de código abierto, desarrollado por Linus Torvalds



git

Colaborativo



Imágenes tomadas de [1]

Flujo de Trabajo

Working
Directory

Staging
Area

Local Repo
(HEAD)

Remote Repo
(Master)

git add .

git commit

git push



Git - Terminal

Cada acción sobre el sistema de control de versiones es llevada a cabo con comandos que inician con la palabra **git**.

```
vagrant@tester:~  
[vagrant@tester ~]$ sudo dnf update ^C  
[vagrant@tester ~]$ sudo dnf install git ^C  
[vagrant@tester ~]$ git --help  
usage: git [-v | --version] [-h | --help] [-C <path>] [-c <name>=<value>]  
        [--exec-path[=<path>]] [--html-path] [--man-path] [--info-path]  
        [-p | --paginate | -P | --no-pager] [--no-replace-objects] [--bare]  
        [--git-dir=<path>] [--work-tree=<path>] [--namespace=<name>]  
        [--config-env=<name>=<envvar>] <command> [<args>]  
  
These are common Git commands used in various situations:  
  
start a working area (see also: git help tutorial)  
  clone      Clone a repository into a new directory  
  init       Create an empty Git repository or reinitialize an existing one  
  
work on the current change (see also: git help everyday)  
  add        Add file contents to the index  
  mv         Move or rename a file, a directory, or a symlink  
  restore    Restore working tree files  
  rm         Remove files from the working tree and from the index  
  
examine the history and state (see also: git help revisions)  
  bisect     Use binary search to find the commit that introduced a bug  
  diff       Show changes between commits, commit and working tree, etc  
  grep       Print lines matching a pattern  
  log        Show commit logs  
  show       Show various types of objects  
  status     Show the working tree status  
  
grow, mark and tweak your common history
```

Git vs ...

Existen diversas plataformas para almacenar repositorios o código fuente como GitHub, GitLab, Bitbucket



GitHub



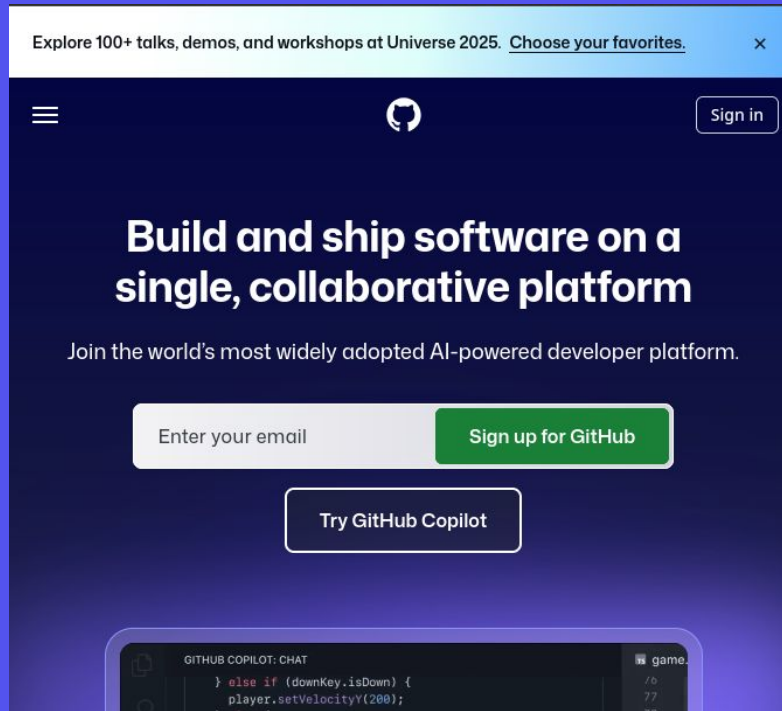
Bitbucket



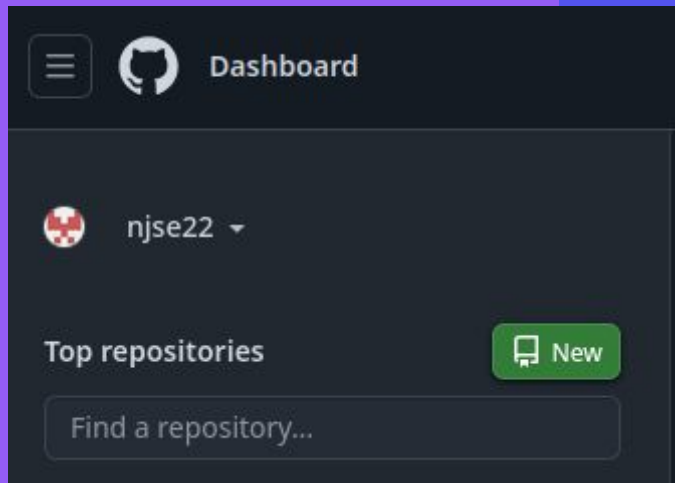
Gitlab

Crea una cuenta en GitHub

Ingresa a: <https://github.com> y entra a Sign up



Crea un repositorio en GitHub



Create a new repository

Repositories contain a project's files and version history. Have a project elsewhere? [Import a repository](#).
Required fields are marked with an asterisk (*).

- General**

Owner * njse22

Repository name *

Great repository names are short and memorable. How about `curly-fishstick`?

Description

0 / 350 characters
- Configuration**

Choose visibility * Public

Choose who can see and commit to this repository

Start with a template No template

Templates pre-configure your repository with files.

Add README Off

READMEs can be used as longer descriptions. [About READMEs](#)

Add .gitignore No .gitignore

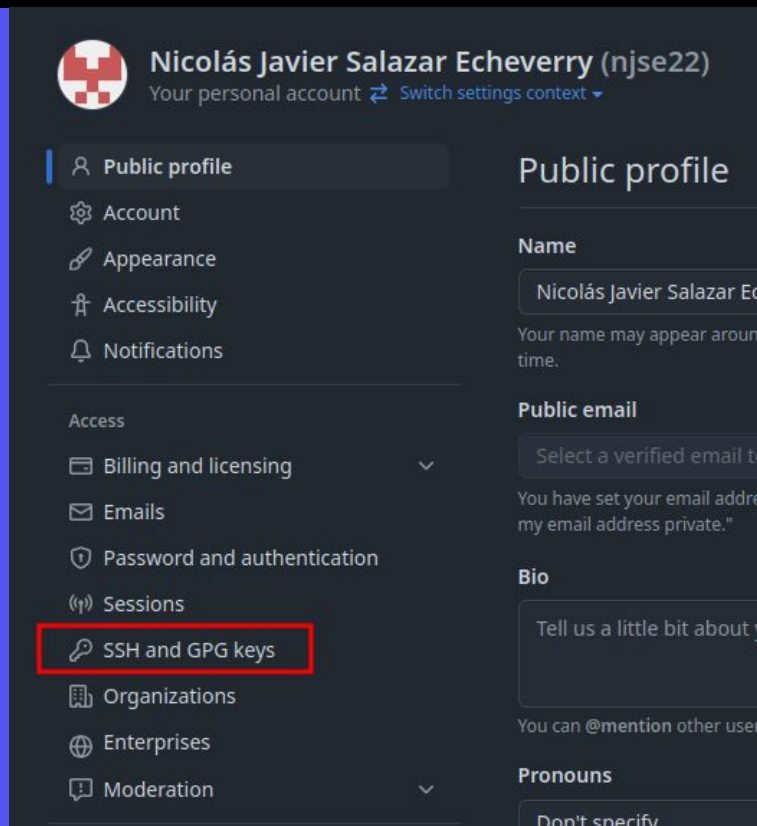
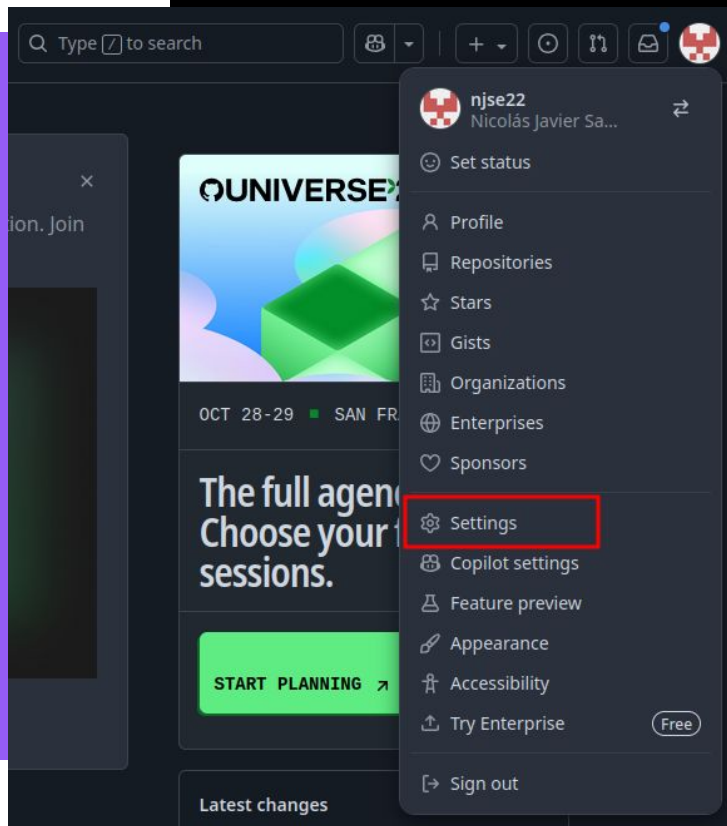
.gitignore tells git which files not to track. [About ignoring files](#)

Add license No license

Licenses explain how others can use your code. [About licenses](#)

Create repository

Creación de una llave SSH para Git / GitHub



Creación de una llave SSH para Git / GitHub

SSH keys

New SSH key

This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.

```
]$ ssh-keygen -t rsa -b 4096 -C "njse22@gmail.com" ^C  
]$ eval "$(ssh-agent -s)" ^C  
]$ ssh-add -k /home/vagrant/.ssh/id_rsa ^C  
]$ cat .ssh/id_rsa.pub
```

Referencias

[1] <https://git-scm.com/book/en/v2/Getting-Started-About-Version-Control>

[2] <https://www.atlassian.com/git/tutorials/git-ssh>