



**ULPGC**  
Universidad de  
Las Palmas de  
Gran Canaria

# Iniciación a Github

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Audiovisual

02/12/2021

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Name

Last name

Work Spain

## About me

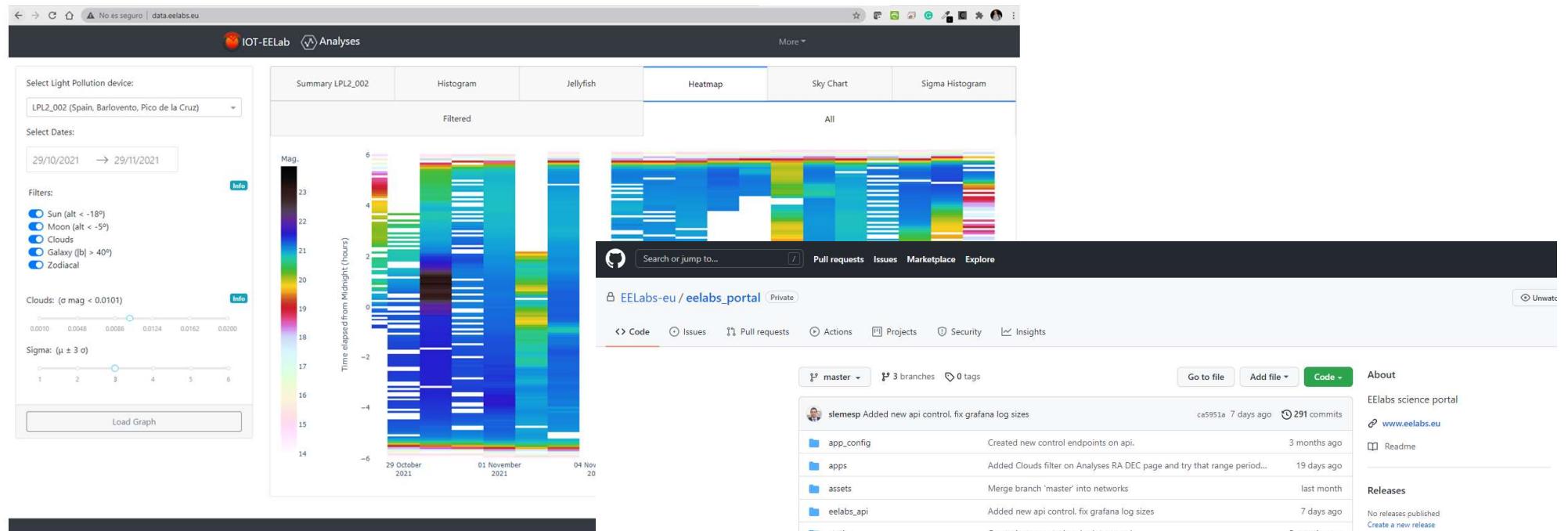
Idafen Santana-Perez, PhD

- OEG Member, UPM
  - PhD 2016
  - Postdoc 2018
- ISTAC
  - Air Quality Data
- ULPGC, Research Fellow
  - GTMA, EELabs Project
- Lecturer: UPM, IE, ESCP, UNED



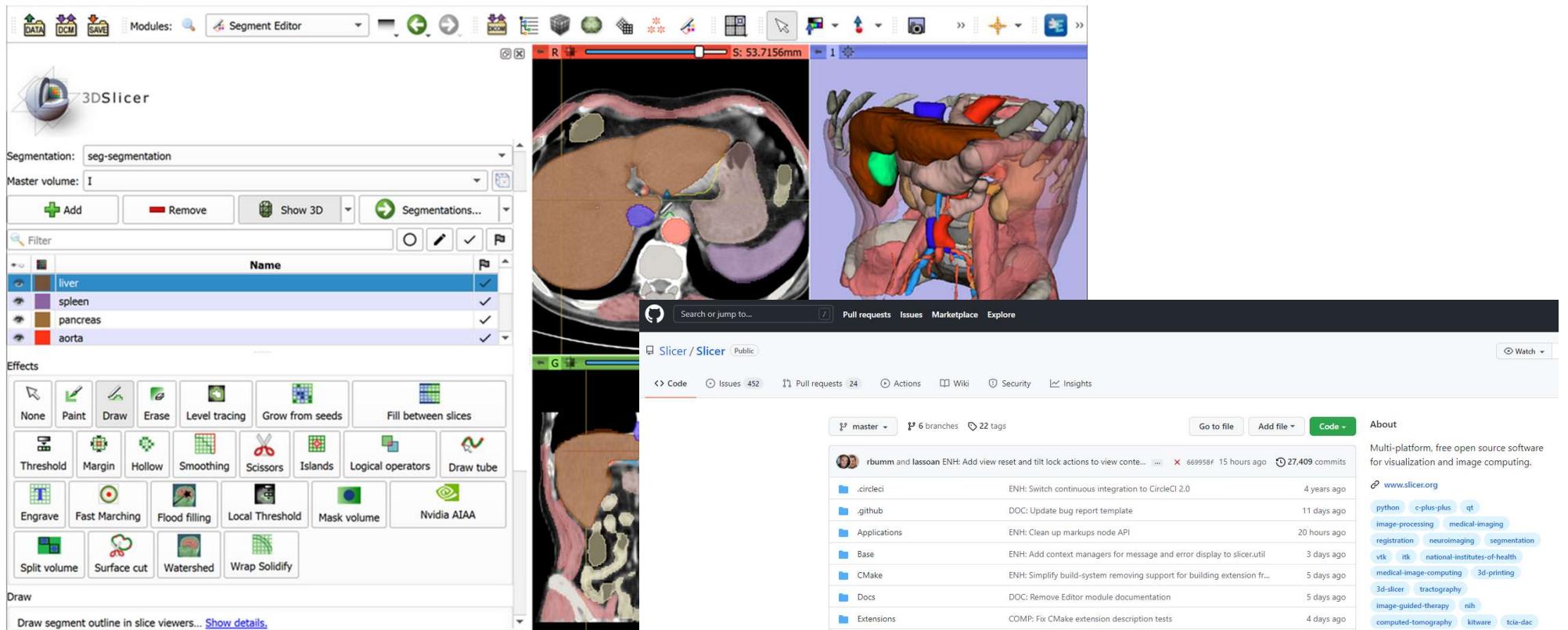
# Grupo de Tecnología Médica y Audiovisual

ULPGC



# Grupo de Tecnología Médica y Audiovisual

ULPGC



# Grupo de Tecnología Médica y Audiovisual

## ULPGC

- Grupo Propio ULPGC
  - Telecomunicaciones + Medicina
  - IUIBS
- Centro de simulación
- Procesamiento imagen médica
- **Realidad Virtual/Aumentada, Videojuegos, hologramas, procesamiento y visualización de datos**
- NAMIC (usando GitHub)
  - [https://www.na-mic.org/wiki/Project Events](https://www.na-mic.org/wiki/Project_Events)



# ESTRUCTURA

# Iniciación a Github

## Día 1

- Introducción al curso
- Git
  - Conceptos y aplicaciones
  - Repositorios
  - Commit
  - Anotación Markdown
  - Revisión de historial y comandos adicionales



# Iniciación a Github

## Día 1

- Plataforma Github
  - Introducción a Github
  - Creación de cuenta Github
  - Creación de un repositorio
  - Push & Pull
- Propuesta de ejercicio



# Iniciación a Github

## Día 2

- Corrección de ejercicios
- Creación de un Proyecto colaborativo
  - Ramas y Forks
  - Pull Requests y Merges
  - Gestión de conflictos en Github
  - Copiar y clonar proyectos existentes
  - Gestión de Issues
- Conclusiones y resumen del curso



# Iniciación a Github

## Objetivo Día 1

- Saber que es Git
  - Comandos básicos
  - Saber que es GitHub como plataforma
  - Conceptos
    - Repositorio
    - Versionado
    - Actualizar código en GitHub



## *Materiales del curso*

<https://idafensp.github.io/github/>

*Mi usuario GH*

*GH pages*

*Directorio*

*Repositorio GH*



¿GIT?  
¿GITHUB?

A large, abstract graphic element on the left side of the slide consists of several overlapping yellow circles and ovals. One large circle is positioned vertically along the left edge, while others overlap it and extend towards the center. The colors range from bright yellow to a pale cream.

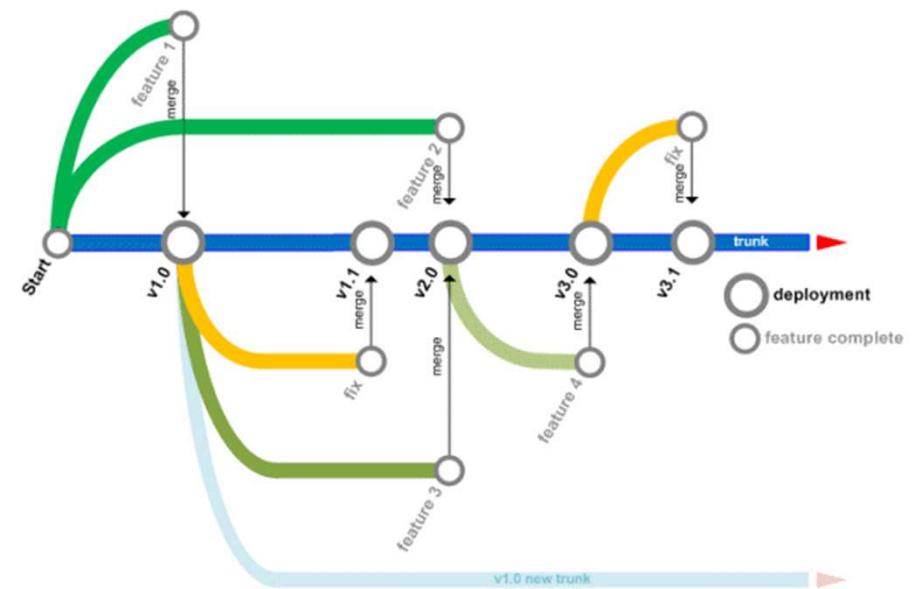
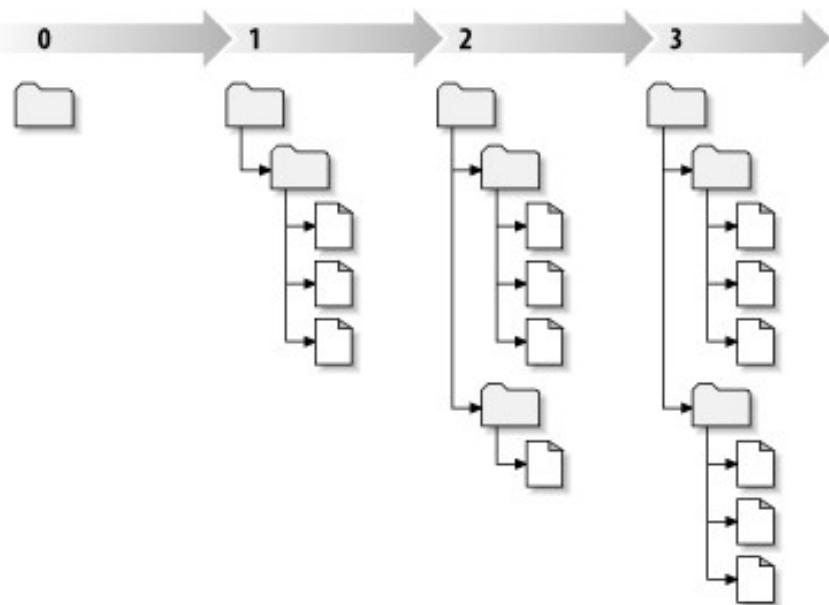
**GIT**

## Control de versiones

El **control de versiones** es un sistema que registra los **cambios** realizados sobre un archivo o conjunto de archivos a lo **largo del tiempo**, de forma que se puedan recuperar **versiones** anteriores en cualquier momento.



## Control de versiones



## Git

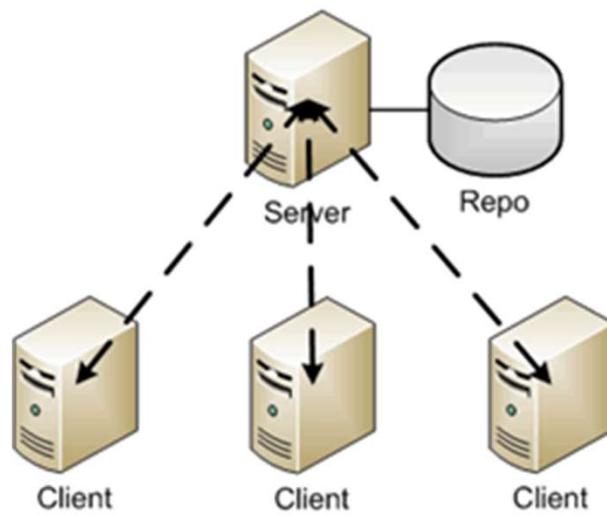
- <http://git-scm.com>
- Inicio en 2005, por Linus Torvalds y parte de la comunidad de Linux (reemplazo a BitKeeper).
- Una gestión distribuida de versiones.
- Herramienta de línea de comandos
- Cross-platform y Open Source
- Es **tremendamente rápido, muy eficiente con grandes proyectos, y tiene un increíble sistema de ramificación (branching)**



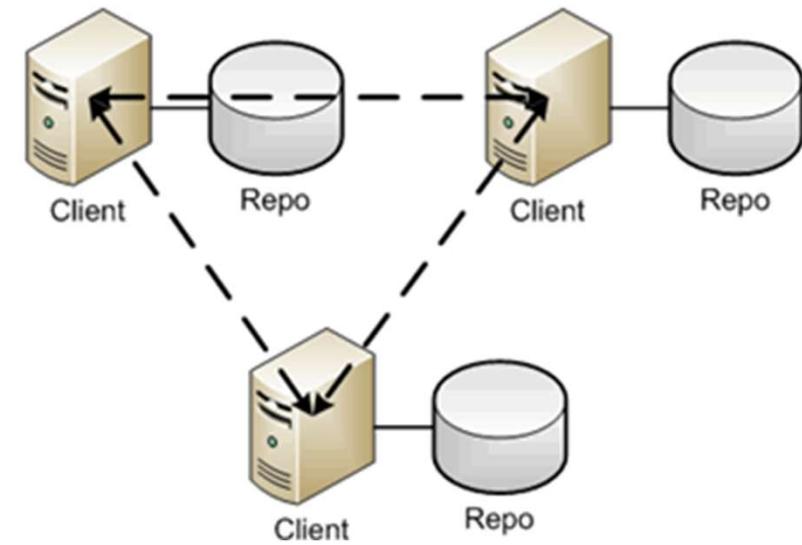
# Git

- Sistema de control de versiones distribuido

**Traditional**



**Distributed**



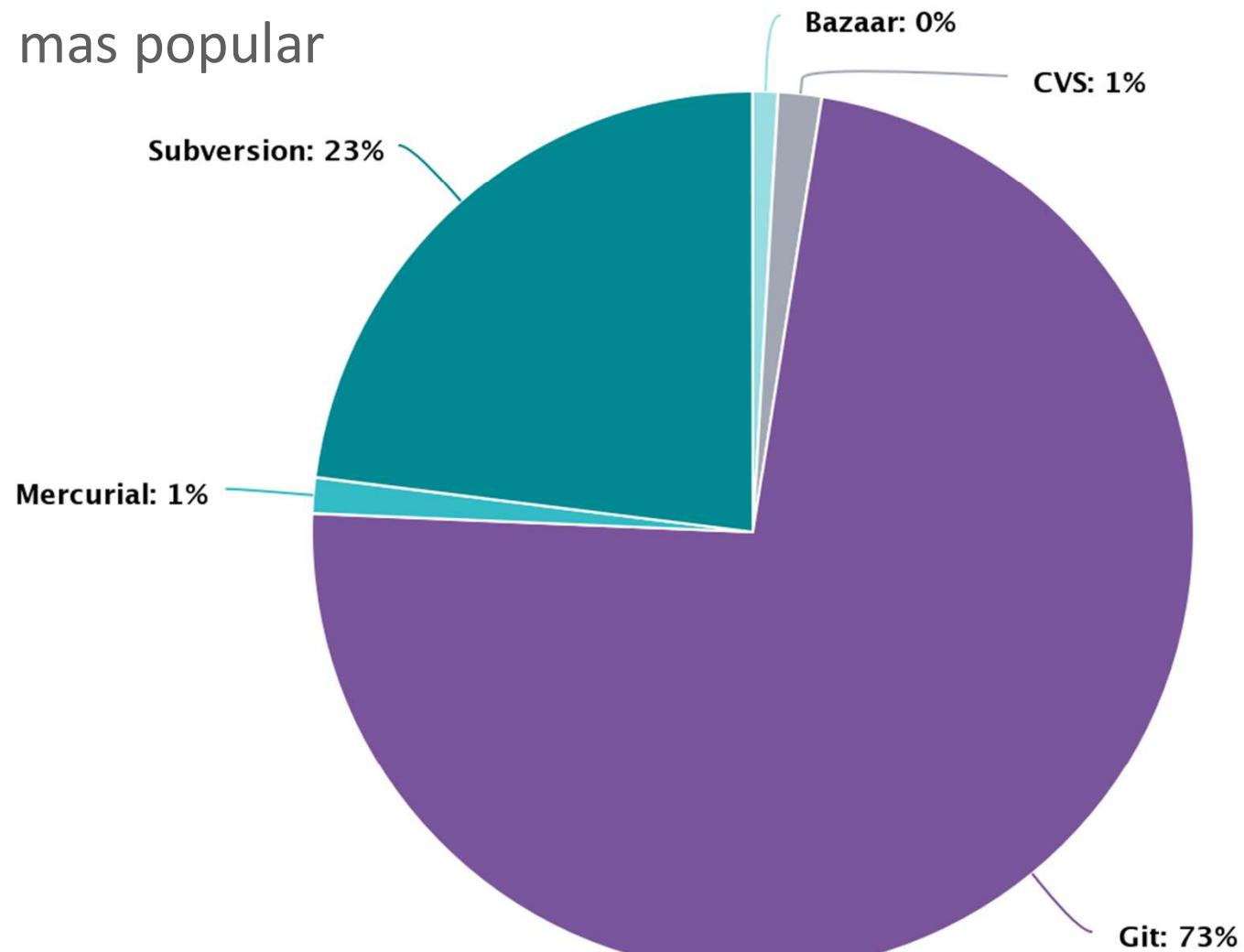
## Git

- Sistema de control de versiones distribuido
  - Sin necesidad servidor central
  - Trabajo offline
  - Trabajo independiente y coordinación posterior
  - Todas las copias de un proyecto tienen el historial completo
  - **Git registra cambios, no versiones**



## Git

- Sistema mas popular



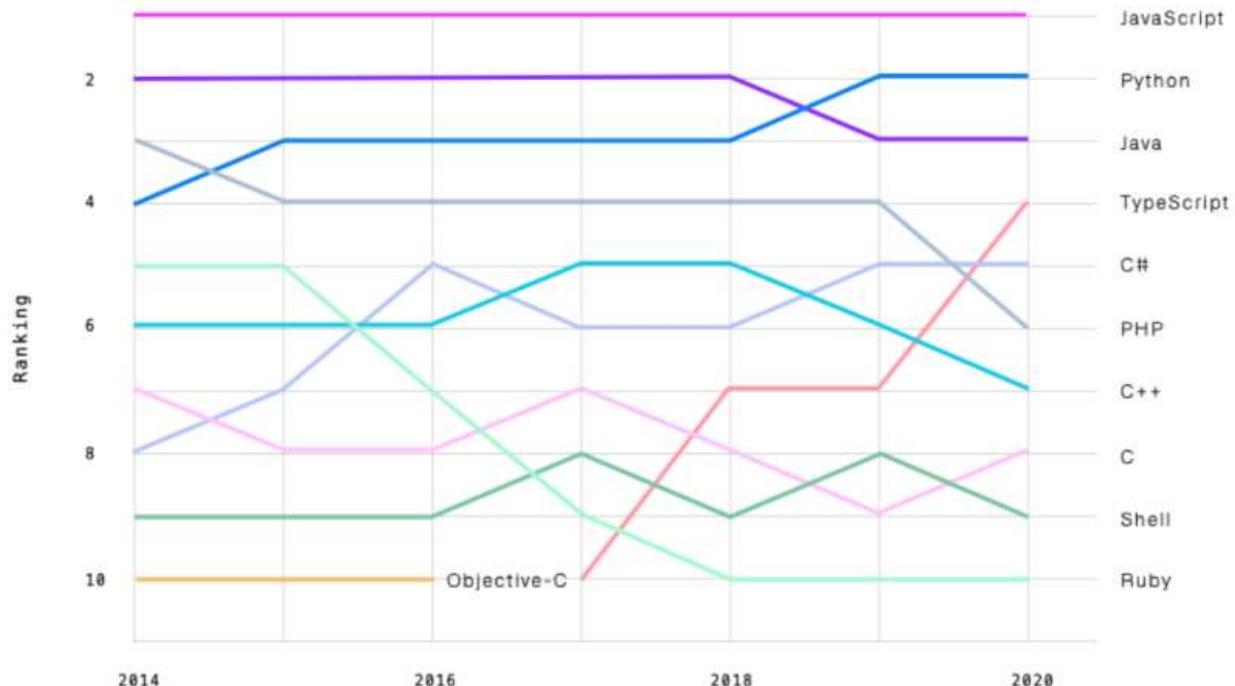
Source: <https://www.openhub.net/repositories/compare>



# Git

## ¿Para que se usa?

- ¡Código!
  - JavaScript
  - Python
  - Java
  - Typescript
  - C#
  - PHP
  - C++
  - ...

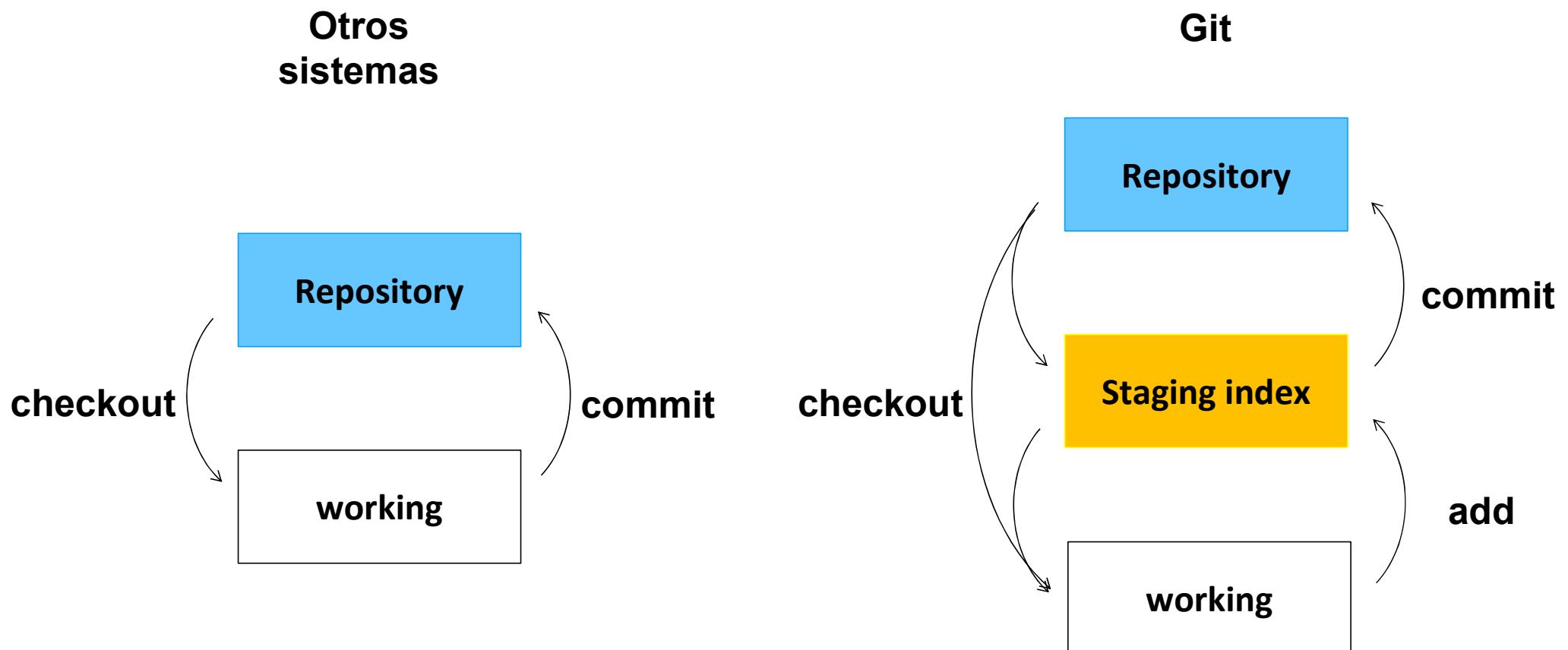


No es lo mas  
idóneo para  
imágenes, videos,  
PDF, etc.



# Git

## Conceptos básicos



# Git

## Conceptos básicos

- **Working directory**

Solo puede haber una versión activa

- **Repository**

Contiene todas las versiones y las relaciones entre ellas.



# Git

## Conceptos básicos

- **HEAD**

Puntero a la versión con la que estamos trabajando. La que tenemos en nuestro directorio de trabajo.

- **Master / Main**

Es la rama principal sobre la que debe ir creciendo el desarrollo.

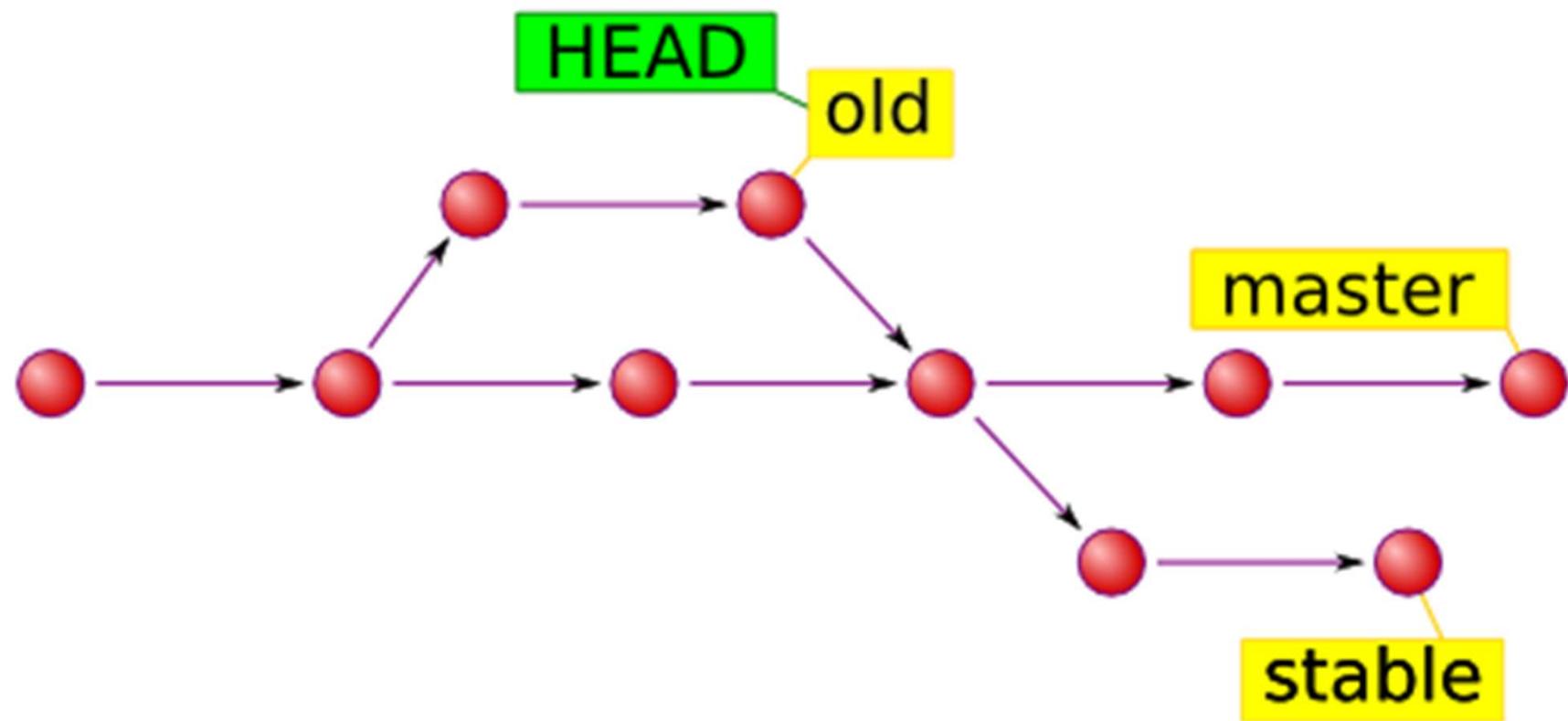
- **Branch**

Son ramas secundarias sobre las que se crean nuevas funcionalidades



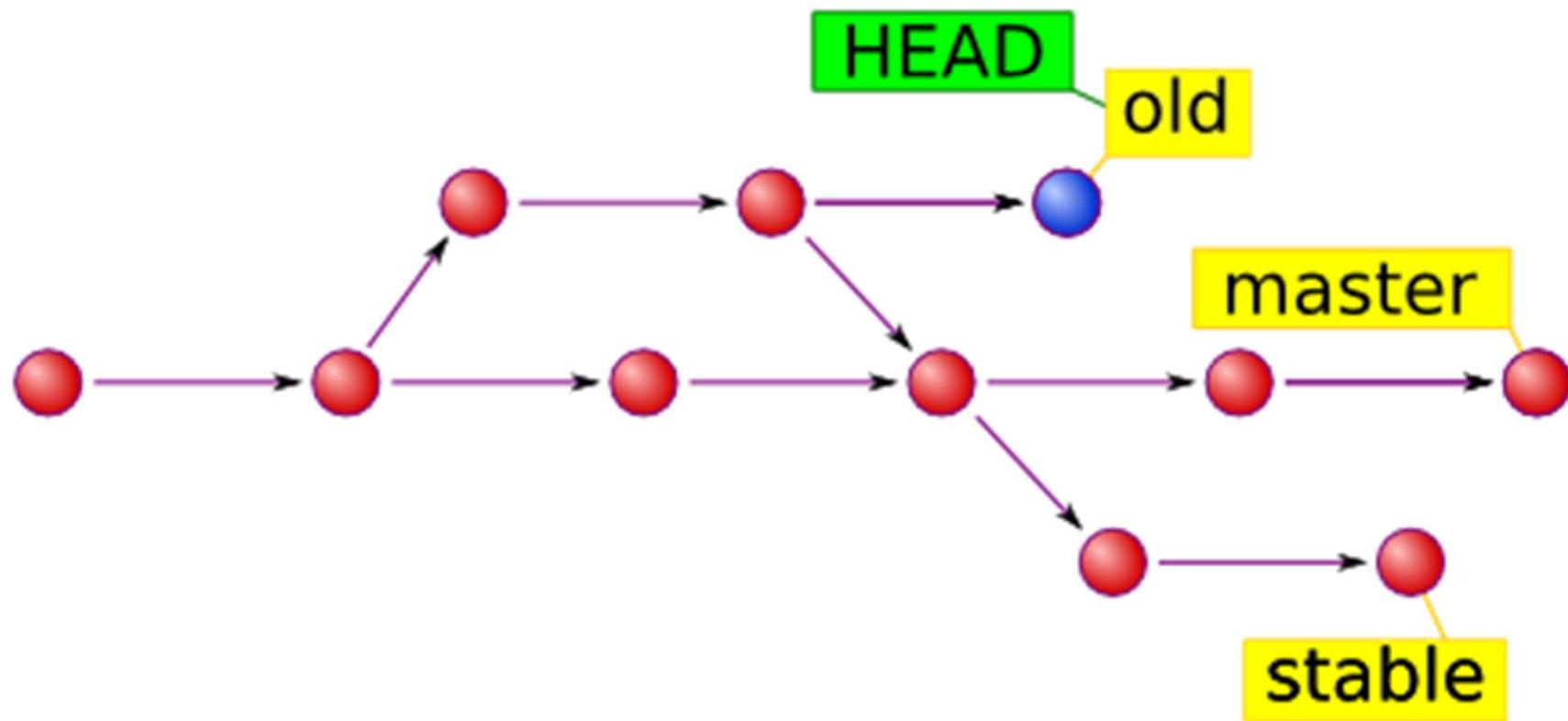
# Git

## HEAD y Ramas



# Git

# HEAD y Ramas



# Git

## Comandos mas usados (de 164 posibles)

- <https://git-scm.com/docs/git# git commands>
- ***git init***: iniciar un repositorio git
- ***git status***: comprobar el estado
- ***git log***: revisar historial de cambios
- ***git add***: añadir ficheros para un commit
- ***git commit***: confirmar un cambio
- ***git diff***: diferencia entre un repo y el working
- ***git rm***: eliminar fichero del sistema git
- ***git mv***: mover el fichero (renombrar)





**GITHUB**

## GitHub

- <https://github.com>



# github.com/microsoft

 Microsoft  
Open source projects and samples from Microsoft  
📍 Redmond, WA | <https://opensource.microsoft.com> | [@OpenAtMicrosoft](#) | [opensource@microsoft.com](mailto:opensource@microsoft.com) | Verified

[Overview](#) | [Repositories](#) 4.5k | [Packages](#) | [People](#) 4.4k | [Projects](#) 12 | [Sponsoring](#) 24

README.md



**Open.**  
**Collaborative.**  
**Flexible.**

Open Source enables Microsoft products and services to bring choice, technology and community to our customers.

## Get Involved

Right now, open communities are building amazing software together, and there are excellent "good first issue" opportunities, if you're looking to get involved.

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Visit [opensource.microsoft.com](https://opensource.microsoft.com) to learn more!

### People



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### Sponsoring



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### Top languages

 C#  TypeScript  Python  JavaScript  
 C++

### Most used topics

 azure  microsoft  python

# github.com/microsoft/vscode

main ▾ 469 branches 209 tags Go to file Add file ▾ Code ▾

 sandy081 fix tests	94ab8f1 15 minutes ago	90,291 commits
.devcontainer	Minor edits	last month
.github	Run unit tests against node.js too (#137790)	7 days ago
.vscode	update endgame notebooks	2 days ago
build	build: 🚧 give names to the api proposal tasks	2 days ago
extensions	Fix regression related to git.scanRepositories	5 hours ago
remote	➡️ @parcel/watcher (fix #136460)	2 days ago
resources	➡️ web playground	9 days ago
scripts	tests - enable crash reporter for electron based unit tests	12 days ago
src	fix tests	15 minutes ago
test	smoke - ➡️ retry timeout	3 hours ago
.editorconfig	No forcing tabsizes on users	3 years ago
.eslintignore	Switch to dompurify for sanitizing markdown content (#131950)	3 months ago
.eslintrc.json	Copy and use IWindowDriver in PlaywrightDriver	19 days ago
.git-blame-ignore	Add organize to ignore list	4 months ago
.gitattributes	Whitelist comments in all JSON files. For #129206	2 months ago
.gitignore	Add server folder	last month
.lsifrc.json	Add lsifrc file	5 months ago
mailmap	Adds another of my email addresses	10 months ago

About Visual Studio Code [code.visualstudio.com](https://code.visualstudio.com) electron microsoft editor typescript visual-studio-code

Readme MIT License Code of conduct

Releases 54 [October 2021 Recovery 3](#) Latest 13 days ago + 53 releases

Used by 4 

Contributors 1,549 

# GitHub

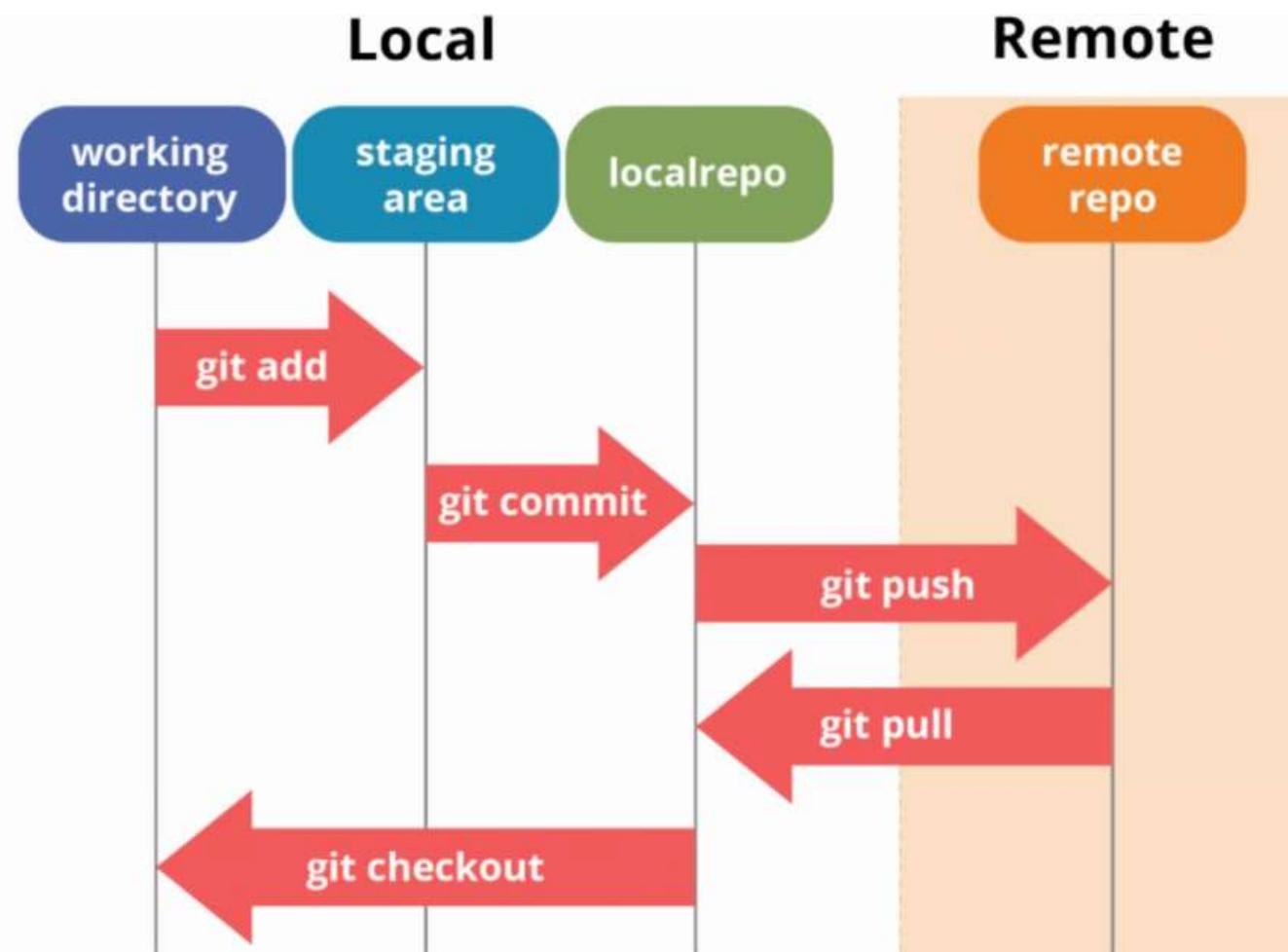
## Historia

- <http://github.com>
- Desde 2008
- Plataforma online de gestión de repositories Git
- Proveedor mas popular de Git
- Git como “red social”
- Casi gratis
- Microsoft 2018 (\$7.500 mill.)



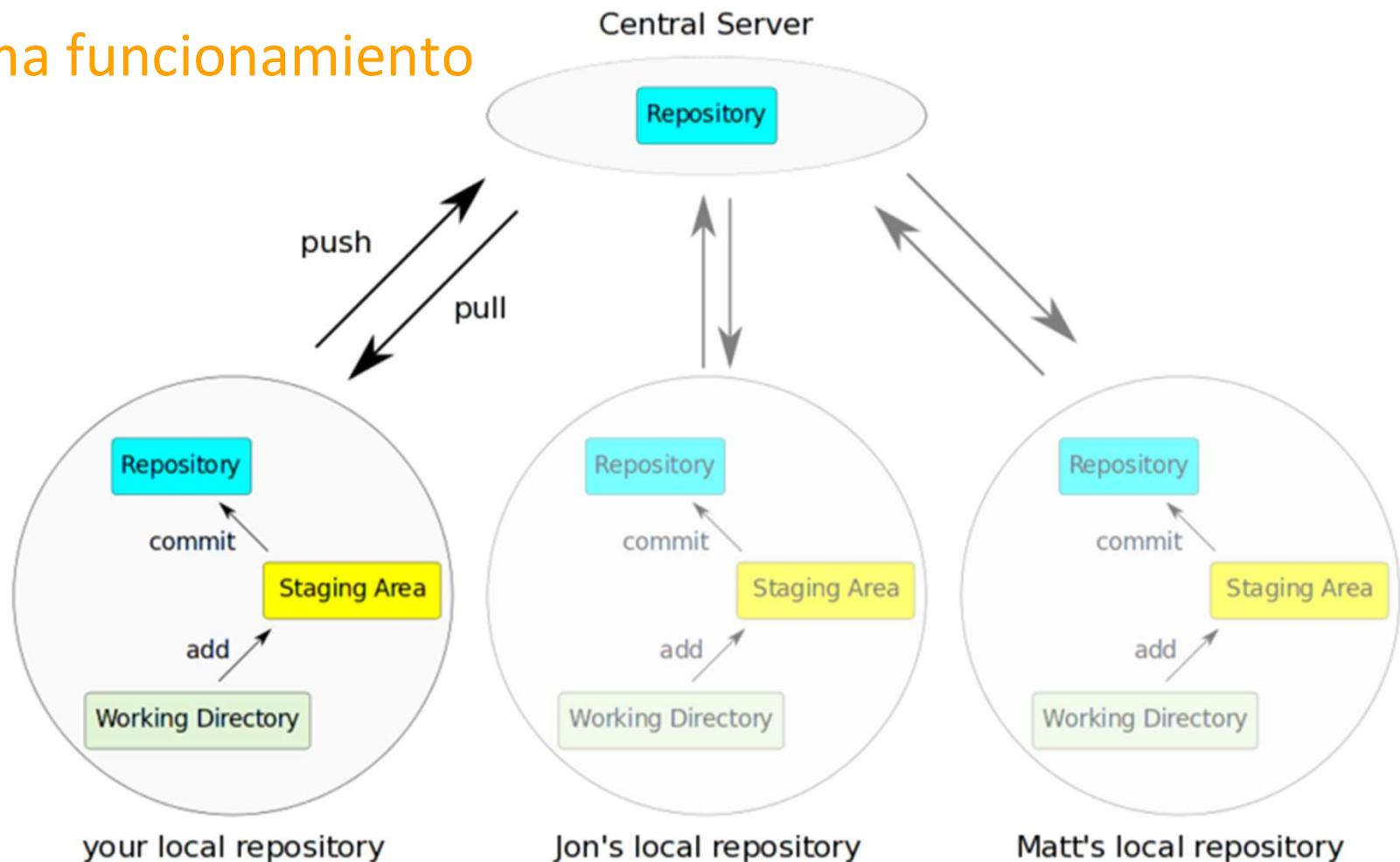
# GitHub

## Esquema funcionamiento



# GitHub

## Esquema funcionamiento



# GitHub

## Terminología

- <https://docs.github.com/es/get-started/quickstart/github-glossary>
- **Rama (Branch):** Una rama es una ***versión paralela de un repositorio***. El repositorio la contiene, pero no afecta la rama primaria o principal, lo que te permite trabajar libremente sin interrumpir la versión "activa".
  - Una vez que haz hecho las modificaciones que deseabas, puedes fusionar tu rama de nuevo en la rama principal para publicar tus modificaciones.



# GitHub

## Terminología

- **Clon:** Un clon es una *copia de un repositorio que vive en tu equipo* en vez de en algún lugar del servidor del sitio web o el acto de realizar dicha copia.
  - Cuando haces un clon, puedes editar los archivos en tu editor preferido y usar Git para hacer un seguimiento de tus modificaciones sin tener que estar en línea.
  - El repositorio que clonas sigue conectado a la versión remota para que puedas subir tus modificaciones locales al remoto para mantenerlos sincronizados cuando estás en línea.



# GitHub

## Terminología

- **Commit (Confirmación):** Una *confirmación de cambios* o "revisión", es una modificación individual a un archivo (o conjunto de archivos).
  - Cuando realizas un commit para guardar tu trabajo, Git crea un ID único (también conocido como, "SHA" o "hash") que te permite mantener un registro de los cambios específicos confirmados junto con quién los realizó y cuándo.
  - Los commits generalmente contienen un mensaje de confirmación que es una descripción breve de las modificaciones que fueron realizadas.



# GitHub

## Terminología

- **Pull:** se refiere a cuando se *recuperan cambios y se fusionan*. Por ejemplo, si alguien ha editado el archivo remoto en el que ambos están trabajando, querrás extraer esos cambios para tu copia local para que esté actualizado. También consulta recuperar.
- **Fetch:** Cuando usas *git fetch*, estás *agregando cambios desde el repositorio remoto a tu rama de trabajo* local sin confirmarlos. A diferencia de *git pull*, la recuperación te permite revisar los cambios antes de confirmarlos en tu rama local.



# GitHub

## Terminología

- Push: significa *enviar tus cambios confirmados a un repositorio remoto* en GitHub.com. Por ejemplo, si cambias algo de forma local, puedes subir esos cambios para que otros puedan acceder a ellos.
- Markdown: *Lenguaje de marcado* específico de GitHub usado para dar formato a la prosa y al código en GitHub.
  - Introducción a GitHub Markdown
  - <https://github.github.com/gfm/>





**¿PREGUNTAS?**

# **USUARIO GITHUB**

# GitHub

## Cuenta de usuario

### Choose the plan that's right for you.

How often do you want to pay?

Monthly      Yearly

The screenshot shows the GitHub pricing page with three main plans displayed:

- Free**: \$0 per user/month. Includes unlimited public/private repositories, 2,000 automation minutes/month (free for public repos), 500MB of Packages storage (free for public repos), New Issues & Projects (in limited beta), and Community support.
- Team**: \$4 per user/month. Labeled as "MOST POPULAR". Includes everything from the Free plan plus: Access to GitHub Codespaces, Protected branches, Multiple reviewers in pull requests, Draft pull requests, Code owners, Required reviewers, and Pages and Wikis.
- Enterprise**: \$21 per user/month. Includes everything from the Team plan plus: Automatic security and version updates, SAML single sign-on, Advanced auditing, GitHub Connect, 50,000 automation minutes/month (free for public repos), and 50GB of Packages storage (free for public repos).

Buttons for "Create a free organization", "Continue with Team", "Contact Sales", and "Start a free trial" are also visible.



# GitHub

## Cuenta de usuario

- <https://docs.github.com/es/get-started/signing-up-for-github>
- Crear cuenta usuario
  - Ir a <https://github.com/signup>
  - Email y Password
  - Nombre de usuario
  - Rompecabezas
  - Verificar cuenta de correo
  - Opciones de equipo y Paid Plan (free)

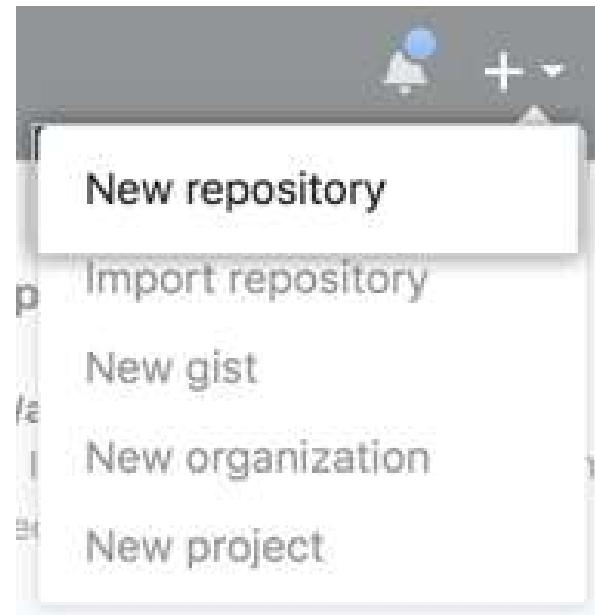


# REPOSITORIO GITHUB

# GitHub

## Repositorio

- <https://docs.github.com/es/get-started/quickstart/create-a-repo>
- Vamos a crear un nuevo proyecto con nuestro usuario
  - Github.com
  - Iniciamos sesión
  - Nuevo repositorio





## Repositorio

### Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

#### Repository template

Start your repository with a template repository's contents.

No template ▾

Owner \*



idafensp

Repository name \*

github-eii



Great repository names are short and memorable. Need inspiration? How about [super-robot?](#)

Description (optional)

Repositorio de ejemplo curso iniciación a Github EII 2021

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

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.](#)

.gitignore template: [Python](#) ▾

Choose a license

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

License: [Apache License 2.0](#) ▾

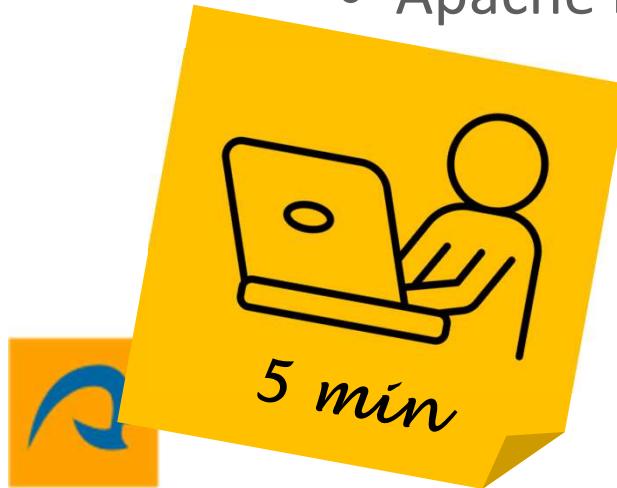
[Create repository](#)



# GitHub

## Repositorio

- Add README
- Add gitignore
  - Python
- Choose a license
  - Apache License 2.0



### Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

#### Repository template

Start your repository with a template repository's contents.

No template ▾

Owner \*



idafensp

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github-eii



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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](#).

.gitignore template: Python ▾

Choose a license

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

License: Apache License 2.0 ▾

Create repository

# GitHub

## Repositorio

The image displays three identical screenshots of a GitHub repository page for the user 'idafensp' named 'github-eii'. The repository is described as 'Public'.

**Header:** The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. It also shows 1 branch, 0 tags, and 1 commit. On the right, there are buttons for Unwatch, Star (0), and Fork (0).

**Code Section:** This section lists the repository's contents. It shows a single commit by 'idafensp' titled 'Initial commit' made at '357ab6' 1 minute ago. The commit includes files: '.gitignore', 'LICENSE', and 'README.md', all of which are 'Initial commit' and were made 1 minute ago.

**README.md Content:** The README file contains the following text:

```
github-eii
Repository de ejemplo curso iniciación a Github EII 2021
```

**About Section:** This section provides a brief description of the repository: 'Repositorio de ejemplo curso iniciación a Github EII 2021'. It includes a 'Readme' link and a 'Create a new release' button.

**Releases Section:** This section indicates 'No releases published' and 'Create a new release'.

**Packages Section:** This section indicates 'No packages published' and 'Publish your first package'.

**Footer:** The footer contains links for GitHub, Inc., Terms, Privacy, Security, Status, Docs, Contact GitHub, Pricing, API, Training, Blog, and About. It also features the same Unwatch, Star (0), and Fork (0) buttons.



# GitHub

## Repositorio

- Licencia

The screenshot shows two main sections of a GitHub repository page.

**LICENSE Page:**

- Header:** main · [github-eii / LICENSE](#) · Go to file · ...
- License Information:** idafensp/github-eii is licensed under the Apache License 2.0. A permissive license whose main conditions require preservation of copyright and license notices. Contributors provide an express grant of patent rights. Licensed works, modifications, and larger works may be distributed under different terms and without source code.
- Permissions:** ✓ Commercial use, ✓ Modification, ✓ Distribution, ✓ Patent use, ✓ Private use
- Limitations:** ✗ Trademark use, ✗ Liability, ✗ Warranty
- Conditions:** ⓘ License and copyright notice, ⓘ State changes
- Note:** This is not legal advice. Learn more about repository licenses.

**Repository Overview:**

- Contributor:** idafensp Initial commit · Latest commit 357ab6 2 minutes ago · History
- Contributors:** 1 contributor
- File Details:** 201 lines (169 sloc) | 11.1 KB
- Code Preview:** Raw, Blame, View, Edit, Delete
- Code Snippet (Apache License 2.0):**

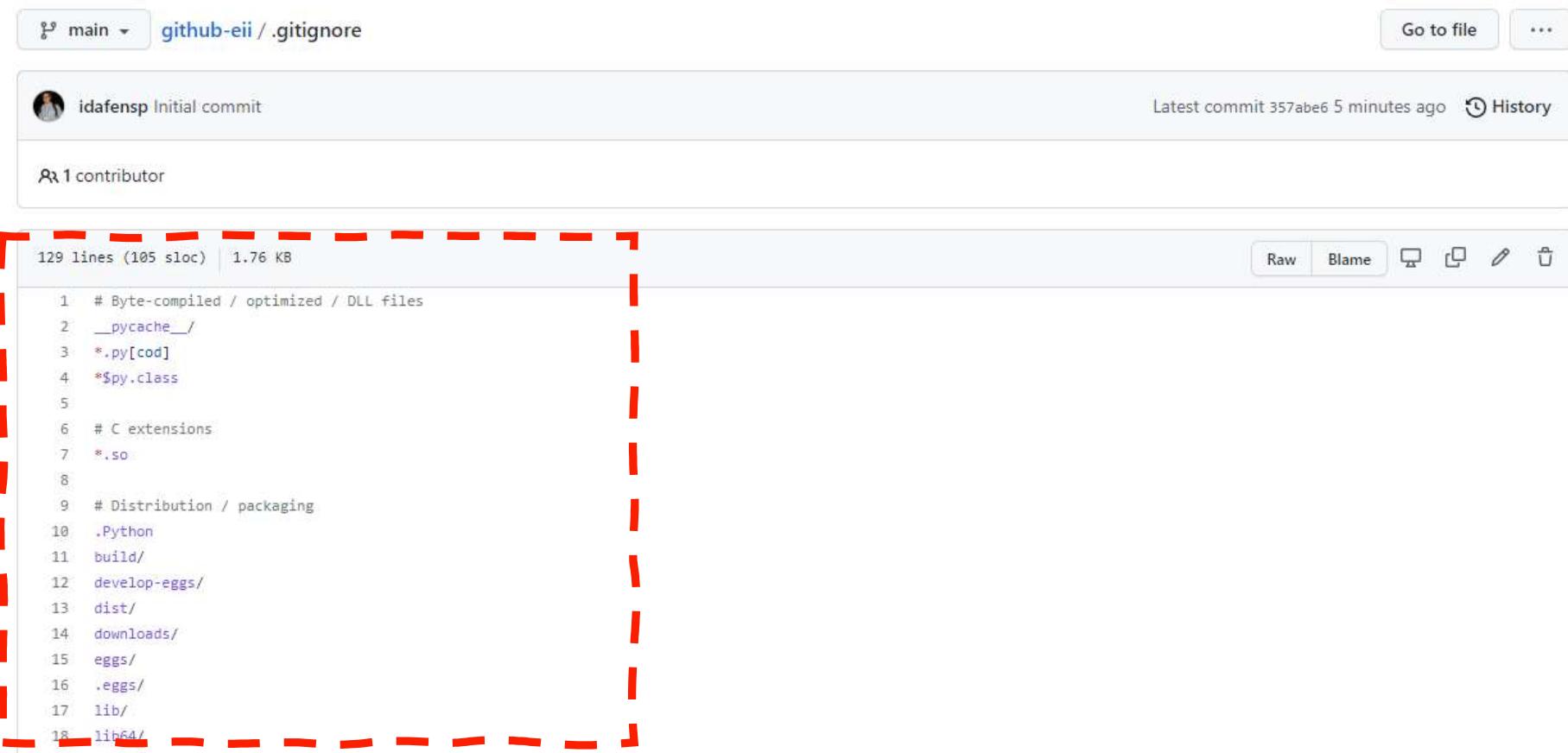
```
1      Apache License
2      Version 2.0, January 2004
3      http://www.apache.org/licenses/
4
5      TERMS AND CONDITIONS FOR USE, REPRODUCTION, AND DISTRIBUTION
6
7      1. Definitions.
8
9      "License" shall mean the terms and conditions for use, reproduction,
10     and distribution as defined by Sections 1 through 9 of this document.
```



# GitHub

## Repositorio

- .gitignore



The screenshot shows a GitHub repository page for the file '.gitignore' in the 'main' branch of the 'github-eii' repository. The page includes a commit history, contributor information, and a detailed view of the .gitignore file's contents.

**Commit History:**  
idafensp Initial commit (Latest commit 357abe6 5 minutes ago) | History

**Contributors:** 1 contributor

**.gitignore Content:**

```
129 lines (105 sloc) | 1.76 KB
```

```
1 # Byte-compiled / optimized / DLL files
2 __pycache__/
3 *.py[cod]
4 *$py.class
5
6 # C extensions
7 *.so
8
9 # Distribution / packaging
10 .Python
11 build/
12 develop-eggs/
13 dist/
14 downloads/
15 eggs/
16 .eggs/
17 lib/
18 lib64/
```

Raw Blame Copy Edit Delete



# GitHub

## Repositorio

- README

The screenshot shows a GitHub repository page for 'github-eii'. The top navigation bar includes a dropdown for branches ('main'), a link to 'github-eii / README.md', and buttons for 'Go to file' and '...'. Below the header, a commit history section shows an 'Initial commit' by 'idafensp' and a 'Latest commit' at '357abe6' from 6 minutes ago. It also indicates '1 contributor'. At the bottom of the commit history, there's a stats summary: '2 lines (2 sloc) | 72 Bytes' and a row of icons for comparison, raw view, blame, copy, and edit. A red circle highlights the 'edit' icon (pencil) in this row. The main content area displays the README file's content:

```
github-eii

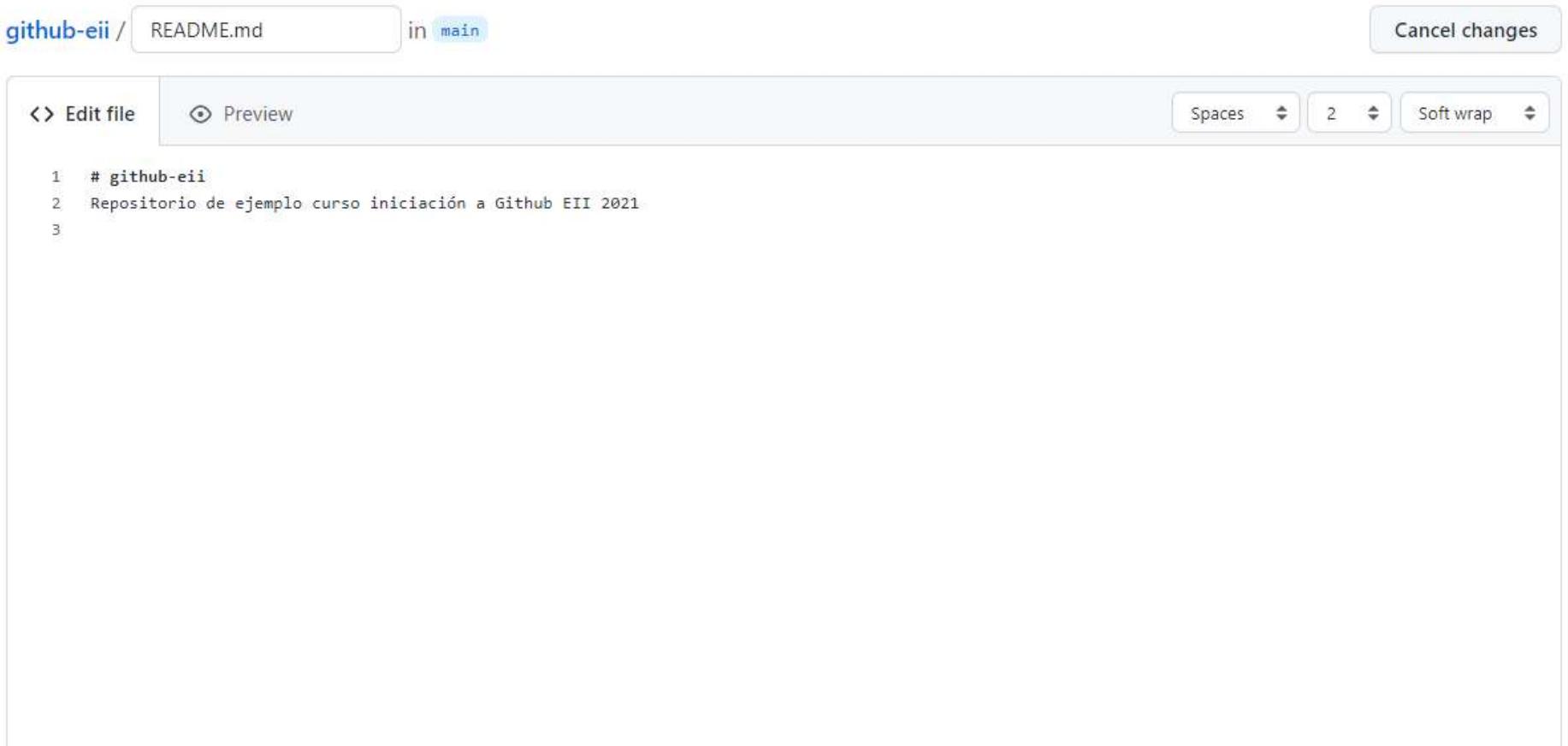
Repository de ejemplo curso iniciación a Github EII 2021
```



# GitHub

## Repositorio

- README



The screenshot shows the GitHub interface for editing a README file. At the top, it displays the repository path "github-eii / README.md" and the branch "in main". On the right, there are buttons for "Cancel changes" and file settings like "Spaces" (set to 2), "Soft wrap", and line numbers. Below the header, there are two tabs: "Edit file" (selected) and "Preview". The main area contains the following text:

```
1 # github-eii
2 Repositorio de ejemplo curso iniciación a Github EII 2021
3
```



# GitHub

## Repositorio

- Markdown
  - <https://github.com/adam-p/markdown-here/wiki/Markdown-Cheatsheet>

 **Markdown Cheatsheet** 

A lightweight markup language with plain text formatting syntax.

Headers	Lists	Backslash Escapes	Images
<pre># This is Heading 1 - &lt;h1&gt; ## This is Heading 2 - &lt;h2&gt; ### This is Heading 3 - &lt;h3&gt; #### This is Heading 4 - &lt;h4&gt; ##### This is Heading 5 - &lt;h5&gt; ##### This is Heading 6 - &lt;h6&gt;</pre>	<p>Unordered List</p> <ul style="list-style-type: none"> <li>* Main Item 1</li> <li>* Main Item 2</li> <li>* Subitem 2a</li> <li>* Subitem 2b</li> </ul> <p>Unordered Lists Can Be:</p> <ul style="list-style-type: none"> <li>* Asterisks</li> <li>- Minus</li> <li>+ Plus</li> </ul> <p>Ordered List</p> <ol style="list-style-type: none"> <li>1. Main Item 1</li> <li>2. Main Item 2</li> <li>3. Main Item 3</li> <li>3.1 Subitem 3a</li> <li>3.2 Subitem 3b</li> </ol>	<pre>\*literal asterisks\*</pre> <ul style="list-style-type: none"> <li>\backslash</li> <li>`backtick</li> <li>* asterisk</li> <li>_ underscore</li> <li>{ curly braces</li> <li>[] square brackets</li> <li>() parentheses</li> <li># hashmark</li> <li>+ plus sign</li> <li>- minus sign (hyphen)</li> <li>. dot</li> <li>! exclamation mark</li> </ul>	<pre>![Logo](/images/logo.png) ![Logo](/images/logo.png "Image Title") ![Logo](https://www.images.com/logo.png) ![Logo](https://www.images.com/logo.png "Title") ![Logo][image_logo]</pre> <p>[image_logo]: https://www.images.com/logo.png</p>
Emphasis	Task List	Code Blocks	Links
<pre>*This text have an italic font style* _This text have an italic font style_ **This text have an bold font style** __This text have an bold font style__ *italics **bold and italics** italics* **bold _bold and italic _bold**</pre> <p>~~Strikethrough this text~~</p>	<p>Horizontal Rules</p> <p>Three or more:</p> <pre>*** (asterisks) ____ (underscores) --- (hyphens)</pre> <p>Blockquotes</p> <p>This indicates that the enclosed text is an extended quotation and is rendered visually by indentation. (HTML &lt;blockquote&gt; Element)</p>	<pre>```java public class MyClass { } ``` Inline `code`.</pre>	<p>My homepage is at the following [link].</p> <pre>[URL of Code2Bits]: http://www.code2bits.com [:] https://www.code2bits.com [link]: https://www.code2bits.com</pre>
Horizontal Rules	Emoji	Tables	Tables
	<p>Emojis on GitHub: <a href="http://www.emoji-cheat-sheet.com">www.emoji-cheat-sheet.com</a></p> <pre>:+1: :sparkles: :camel: :tada: :rocket: :metal: :octocat:</pre>	<pre>  Header 1   Header 2   Header 3   ----- -----: -----   left-aligned   centered   right-aligned  </pre>	<pre>  Header 1   Header 2   ----- ----- Content   Content Content   Content</pre>

Version 0.2 <https://www.code2bits.com>



Source: <https://studylib.es/doc/8825178/cheatsheet-markdown>



# GitHub

## Repositorio



- README
  - Actualizamos, modificamos el texto como queramos
  - Hacemos un commit (rama principal)

A screenshot of a GitHub commit dialog titled "Commit changes". It shows a profile picture of a user and the commit message "README update". There is a text input field for an optional extended description. At the bottom, there are two radio button options: one selected ("Commit directly to the main branch") and one unselected ("Create a new branch for this commit and start a pull request"). Buttons for "Commit changes" and "Cancel" are at the bottom left.

Commit changes

README update

Add an optional extended description...

-o- Commit directly to the `main` branch.

↗ Create a new branch for this commit and start a pull request. [Learn more about pull requests.](#)

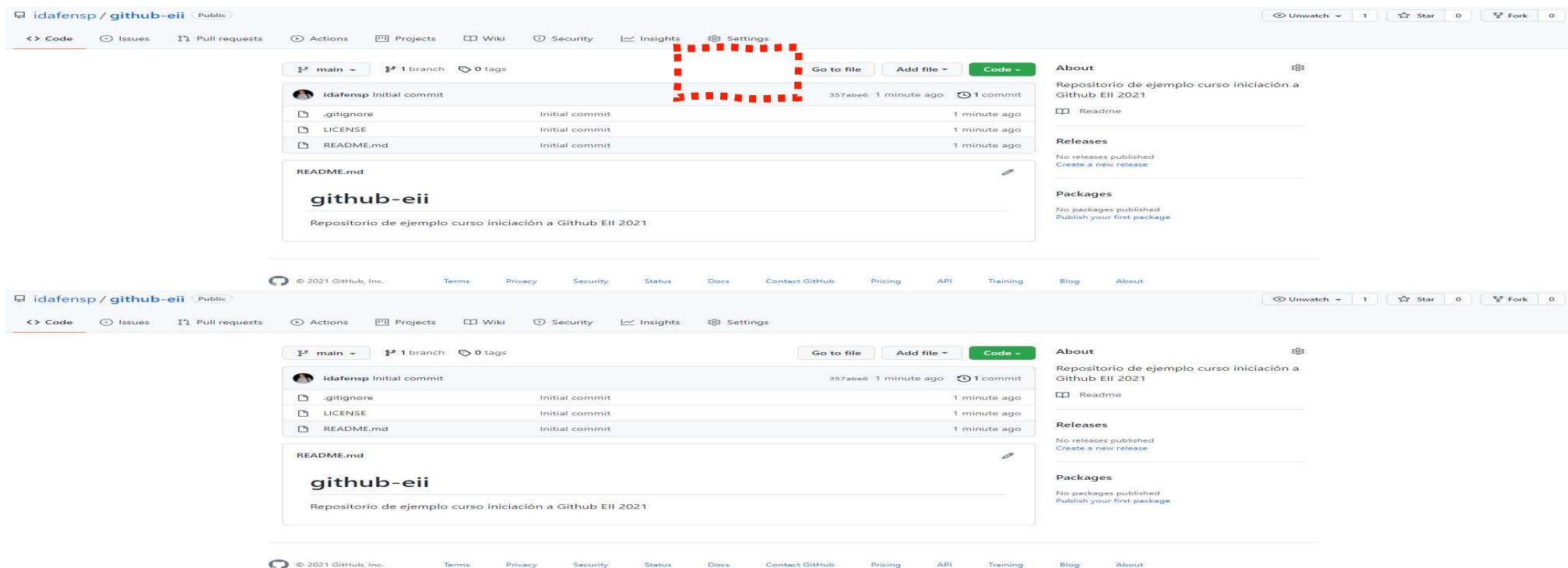
Commit changes Cancel



# **TRABAJAR EN GITHUB**

# GitHub

## Settings



The screenshot shows three identical views of a GitHub repository page for 'idafemsp / github-eii'. The top view has a red dashed box highlighting the 'Code' tab. The middle and bottom views show the repository's main content: a single commit from 'idafemsp' named 'Initial commit' that adds '.gitignore', 'LICENSE', and 'README.md' files. The README contains the text 'github-eii' and 'Repositorio de ejemplo curso iniciación a Github EII 2021'. The right sidebar includes sections for 'About', 'Releases', and 'Packages'.

Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

Settings

Unwatch

Star

Fork

About

Repositorio de ejemplo curso iniciación a Github EII 2021

Readme

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

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Insights

Settings

Unwatch

Star

Fork

About

Repositorio de ejemplo curso iniciación a Github EII 2021

Readme

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package



# GitHub

## Settings

The screenshot shows the GitHub repository settings page for 'idafensp / github-eii'. The page has a light gray header with the repository name, a star count of 0, a fork count of 0, and a 'Unwatch' button. Below the header is a navigation bar with links: Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings (which is underlined). A vertical sidebar on the left contains a list of settings options: Options, Manage access, Security & analysis, Branches, Webhooks, Notifications, Integrations, Deploy keys, Actions, Environments, Secrets, Pages, and Moderation settings. An 'Edit' button is at the bottom of this sidebar. The main content area is titled 'Settings' and includes fields for 'Repository name' (github-eii) with a 'Rename' button, 'Template repository' (disabled), and 'Social preview' (disabled). A large section titled 'Danger Zone' contains four buttons: 'Change repository visibility' (disabled), 'Transfer ownership' (disabled), 'Archive this repository' (disabled), and 'Delete this repository' (disabled). Red dashed boxes highlight the sidebar menu and the 'Danger Zone' buttons.

idafensp / **github-eii** Public

Unwatch 1 Star 0 Fork 0

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Options  
Manage access  
Security & analysis  
Branches  
Webhooks  
Notifications  
Integrations  
Deploy keys  
Actions  
Environments  
Secrets  
Pages  
Moderation settings

Edit

Settings

Repository name  
github-eii Rename

Template repository Template repositories let users generate new repositories with the same directory structure and files. [Learn more.](#)

Social preview Upload an image to customize your repository's social media preview.

Images should be at [Download template](#)

Danger Zone

Change repository visibility For security reasons, you cannot change the visibility of a fork. Change visibility

Transfer ownership Transfer this repository to another user or to an organization where you have the ability to create repositories. Transfer

Archive this repository Mark this repository as archived and read-only. Archive this repository

Delete this repository Once you delete a repository, there is no going back. Please be certain. Delete this repository

# GitHub

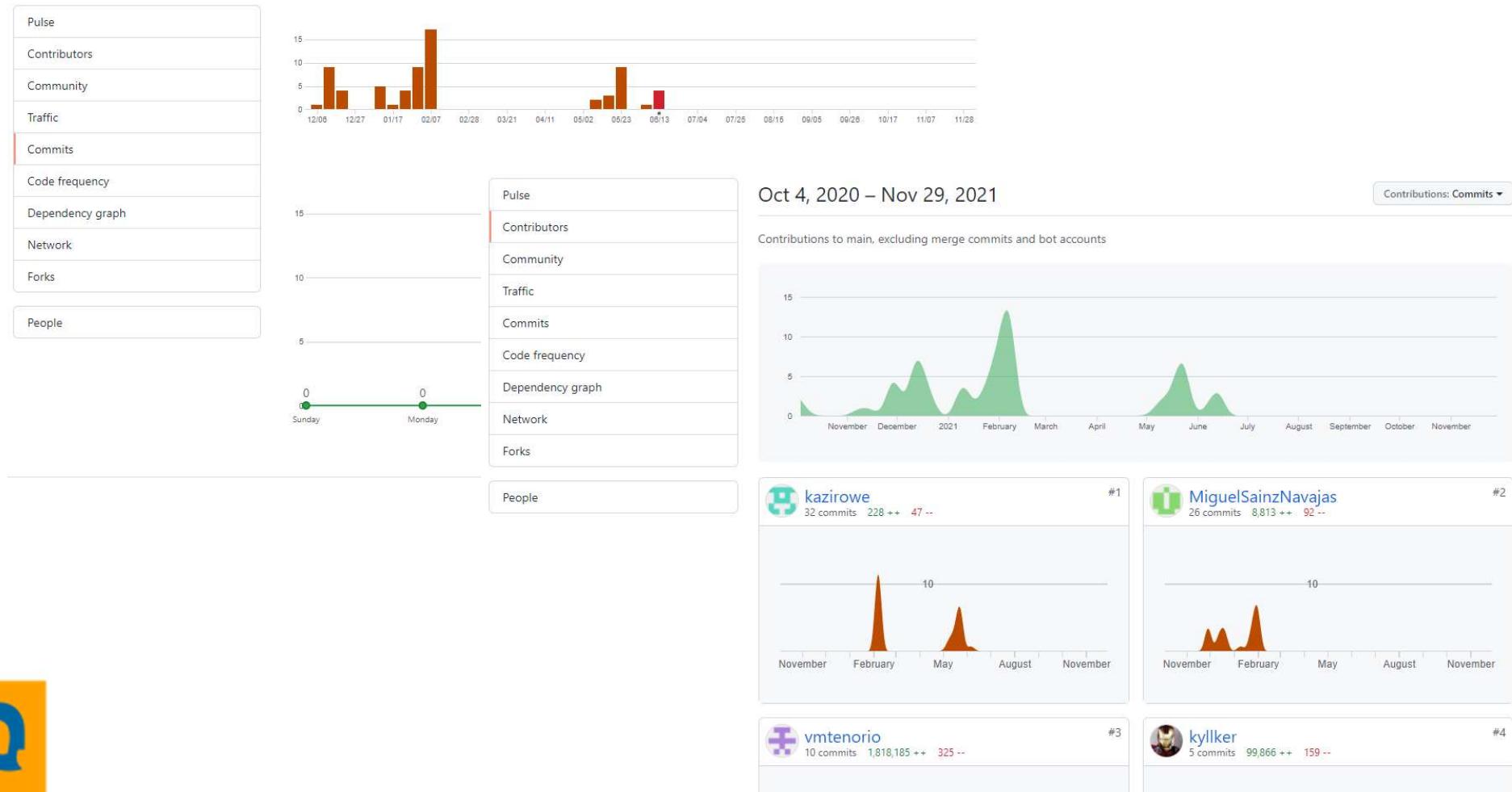
## Insights

The image displays three identical screenshots of a GitHub repository page for 'idafenesp / github-eii' (Public). The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights (which is highlighted with a red border), and Settings. The main content area shows a file tree for the 'main' branch with one commit each for '.gitignore', 'LICENSE', and 'README.md'. The 'About' section indicates it's a 'Repository de ejemplo curso iniciación a Github EII 2021'. The 'Releases' and 'Packages' sections both state 'No releases published' and 'Create a new release'. The bottom navigation bar includes links for Terms, Privacy, Security, Status, Docs, Contact GitHub, Pricing, API, Training, Blog, and About.



# GitHub

## Insights





# **TRABAJAR EN LOCAL**

# GitHub

## Línea de comandos

- GitHub es un repositorio online
- Git es un sistema basado en línea de commandos
  - <https://git-scm.com/book/en/v2/Getting-Started-Installing-Git>
- Windows
  - <https://gitforwindows.org/>



# GitHub

## Línea de comandos

- Personal Access Token (PAT)
  - <https://docs.github.com/es/authentication/keeping-your-account-and-data-secure/creating-a-personal-access-token>
- Creamos un PAT
  - Para repositorios
  - Duración que creamos conveniente
  - Copiamos el token y lo tememos a mano



Tokens you have generated that can be used to access the GitHub API.

Make sure to copy your new personal access token now. You won't be able to see it again!

✓ ghp\_IqIMNOZH6z0wIEB4T9A2g4EHMy8Ji42q4HA5

Enable SSO Delete

# GitHub

## Clonando un repositorio

- Copiando un repositorio en local
- Clon: Un clon es una ***copia de un repositorio que vive en tu equipo*** en vez de en algún lugar del servidor del sitio web o el acto de realizar dicha copia.
  - Cuando haces un clon, puedes editar los archivos en tu editor preferido y usar Git para hacer un seguimiento de tus modificaciones sin tener que estar en línea.
  - El repositorio que clonas sigue conectado a la versión remota para que puedas subir tus modificaciones locales al remoto para mantenerlos sincronizados cuando estás en línea.



# GitHub

## Clonando un repositorio

- *git clone <URL>*
- Usamos la URL del repositorio que hemos creado

The screenshot shows a GitHub repository page for 'github-eii'. The page displays basic statistics: main branch, 1 branch, 0 tags. Below this, a list of files is shown, including '.gitignore', 'LICENSE', and 'README.md', all with 'Initial commit' status. A red dashed box highlights the 'Code' button in the top right corner of the header. A red dashed box also highlights the 'Clone' option in the dropdown menu that appears when the 'Code' button is clicked. The 'Clone' menu includes options for HTTPS, SSH, and GitHub CLI, with the URL <https://github.com/idafensp/github-eii.git> displayed. Other options in the menu include 'Open with GitHub Desktop' and 'Download ZIP'.

main ▾ 1 branch 0 tags

idafensp Initial commit

.gitignore Initial commit

LICENSE Initial commit

README.md Initial commit

README.md

github-eii

Repository de ejemplo curso iniciación a Github EII 2021



# GitHub

## Clonando un repositorio

- *git clone <https://github.com/idafensp/github-eii.git>*

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~
$ git clone https://github.com/idafensp/github-eii.git
Cloning into 'github-eii'...
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (5/5), done.
remote: Total 5 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (5/5), done.
```

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~
$ |
```



# GitHub

## Clonando un repositorio



- Abrir Gitbash
  - O cualquier línea de comandos
  - Elegimos el directorio de trabajo (e.g. *cd Desktop*)
- *git clone <URL>*
  - Usamos la URL del repositorio que hemos creado
- Revisamos los ficheros que se han descargado

```
$ git clone https://github.com/username/repo.git  
Username: your_username  
Password: your_token
```



# GitHub

## Ficheros del proyecto

- Ficheros ocultos

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ ls -l
total 14
-rw-r--r-- 1 Idafen Santana Perez 197121    22 Nov 29 13:19 hello.py
-rw-r--r-- 1 Idafen Santana Perez 197121 11558 Nov 29 12:48 LICENSE
-rw-r--r-- 1 Idafen Santana Perez 197121     74 Nov 29 12:48 README.md

Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ ls -la
total 66
drwxr-xr-x 1 Idafen Santana Perez 197121      0 Nov 29 13:19 .
drwxr-xr-x 1 Idafen Santana Perez 197121      0 Dec  1 13:01 ..
drwxr-xr-x 1 Idafen Santana Perez 197121      0 Nov 29 13:19 .git/
-rw-r--r-- 1 Idafen Santana Perez 197121 1928 Nov 29 12:48 .gitignore
-rw-r--r-- 1 Idafen Santana Perez 197121    22 Nov 29 13:19 hello.py
-rw-r--r-- 1 Idafen Santana Perez 197121 11558 Nov 29 12:48 LICENSE
-rw-r--r-- 1 Idafen Santana Perez 197121     74 Nov 29 12:48 README.md
```



# GitHub

## Ficheros del proyecto

- .git

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ cd .git

Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii/.git (GIT_DIR!)
$ ls -lath
total 24K
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 13:19 .
-rw-r--r-- 1 Idafen Santana Perez 197121 361 Nov 29 13:19 index
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 13:19 ..
-rw-r--r-- 1 Idafen Santana Perez 197121  41 Nov 29 13:19 ORIG_HEAD
-rw-r--r-- 1 Idafen Santana Perez 197121  98 Nov 29 13:19 FETCH_HEAD
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 13:19 objects/
-rw-r--r-- 1 Idafen Santana Perez 197121  20 Nov 29 13:15 COMMIT_EDITMSG
-rw-r--r-- 1 Idafen Santana Perez 197121 301 Nov 29 12:48 config
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 12:48 logs/
-rw-r--r-- 1 Idafen Santana Perez 197121  21 Nov 29 12:48 HEAD
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 12:48 refs/
-rw-r--r-- 1 Idafen Santana Perez 197121 112 Nov 29 12:48 packed-refs
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 12:48 info/
drwxr-xr-x 1 Idafen Santana Perez 197121  0 Nov 29 12:48 hooks/
-rw-r--r-- 1 Idafen Santana Perez 197121  73 Nov 29 12:48 description
```



# GitHub

## Ficheros del proyecto

- .git/config

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii/.git (GIT_DIR!)
$ cat config
[core]
    repositoryformatversion = 0
    filemode = false
    bare = false
    logallrefupdates = true
    symlinks = false
    ignorecase = true
[remote "origin"]
    url = https://github.com/idafensp/github-eii.git
    fetch = +refs/heads/*:refs/remotes/origin/*
[branch "main"]
    remote = origin
    merge = refs/heads/main
```

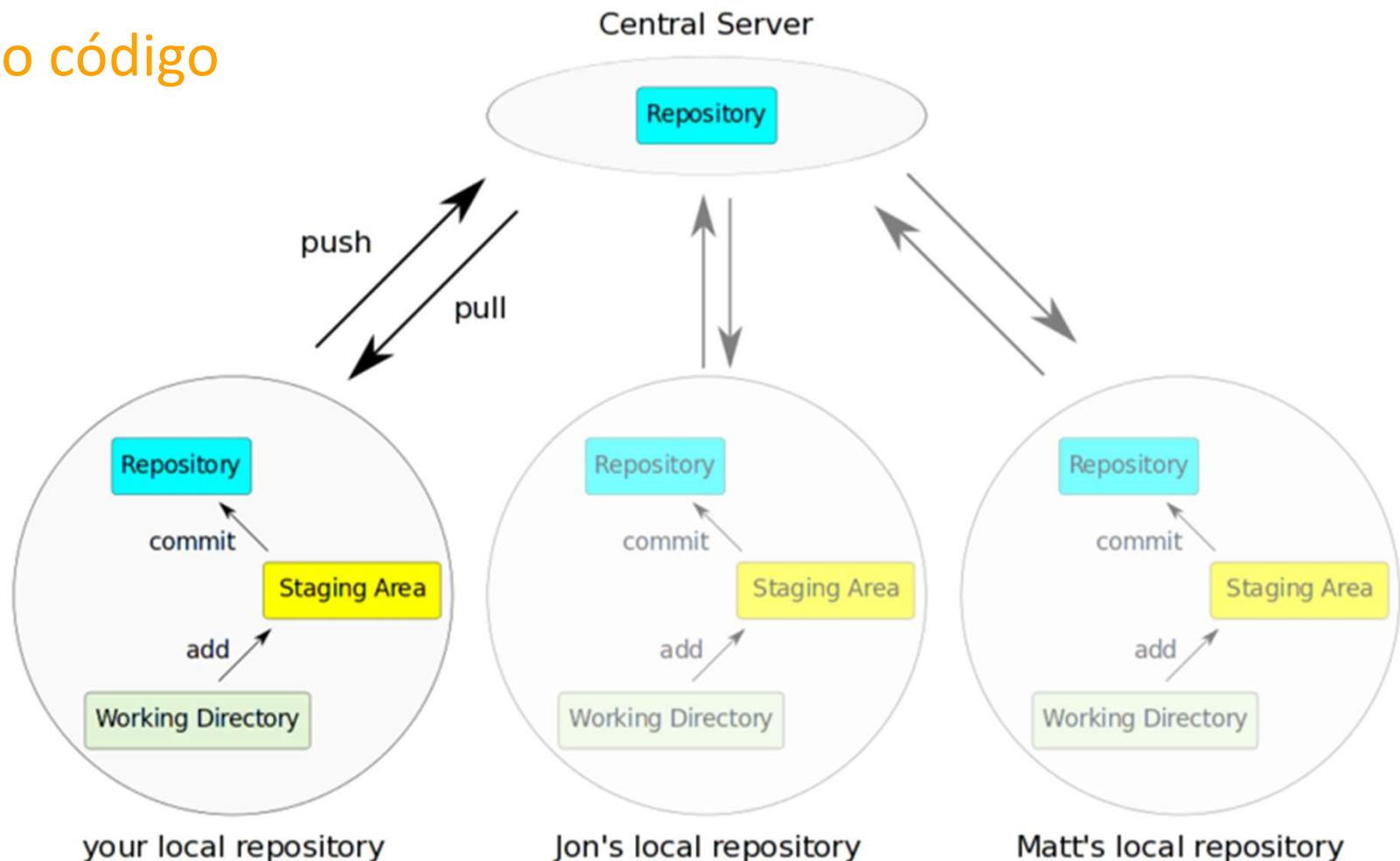




**¿PREGUNTAS?**

# GitHub

## Creando código



# GitHub

## Terminología

- <https://github.com/git-guides/git-add>
- Add (añadir): **agrega archivos nuevos o modificados en el directorio de trabajo** al área de preparación de Git.
  - *git add* es un comando importante; sin él, ningún *git commit* haría nada.
    - *git add <PATH>*
    - *git add \**
    - *git add .*



# GitHub

## Terminología

- **Commit (Confirmación):** Una *confirmación de cambios* o "revisión", es una modificación individual a un archivo (o conjunto de archivos).
  - Cuando realizas un commit para guardar tu trabajo, Git crea un ID único (también conocido como, "SHA" o "hash") que te permite mantener un registro de los cambios específicos confirmados junto con quién los realizó y cuándo.
  - Los commits generalmente contienen un mensaje de confirmación que es una descripción breve de las modificaciones que fueron realizadas.



# GitHub

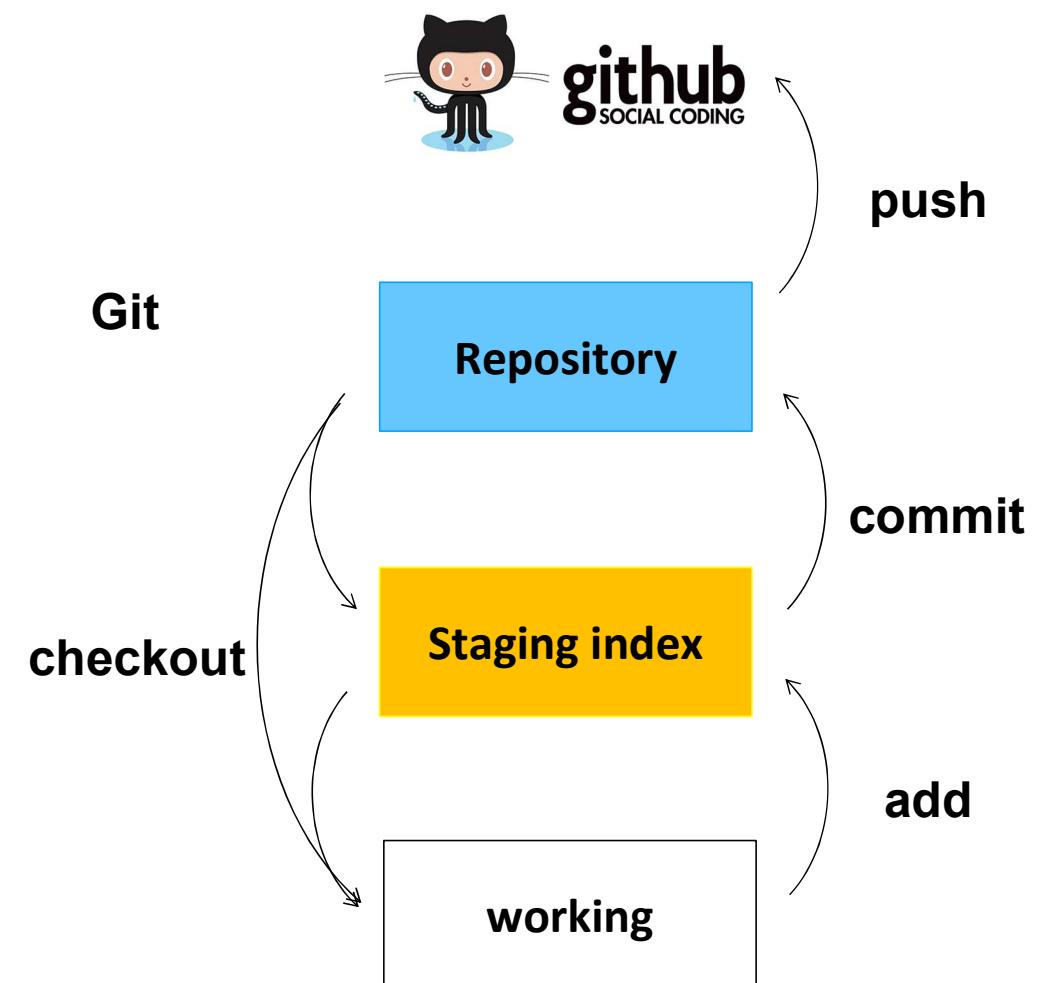
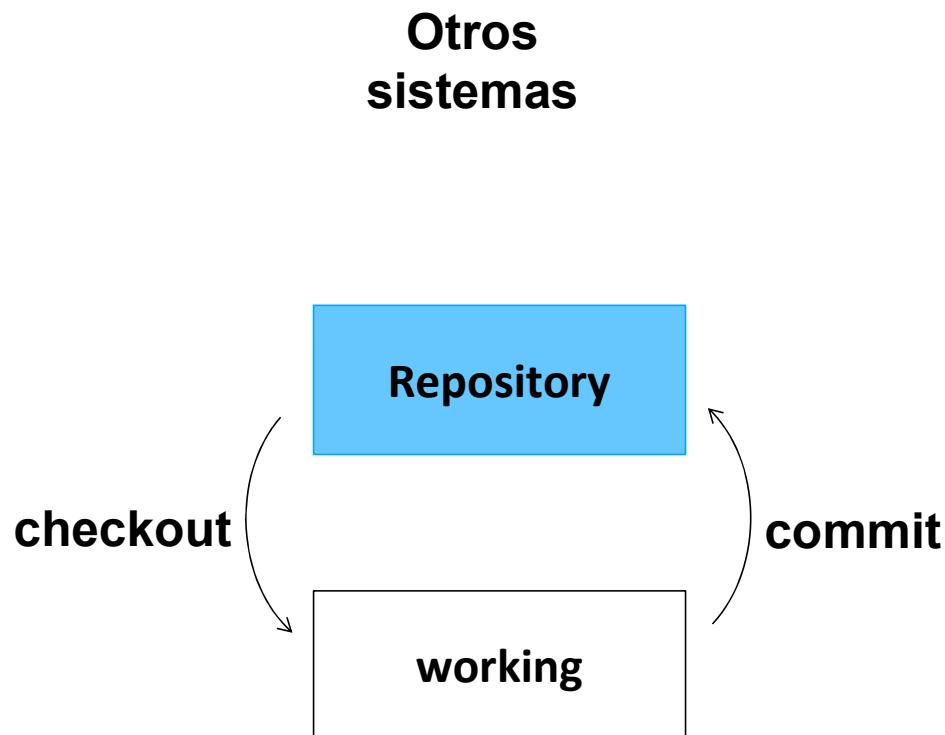
## Terminología

- Push: significa *enviar tus cambios confirmados a un repositorio remoto* en GitHub.com. Por ejemplo, si cambias algo de forma local, puedes subir esos cambios para que otros puedan acceder a ellos.



# Git

## Conceptos básicos



# GitHub

## Creando código

- Vamos al directorio local del repositorio
- Creamos un nuevo fichero de texto
  - Lo renombramos a “hello.py”
  - Lo editamos para añadir: `print("Hello world!")`
- Subimos los cambios a GitHub
  - `git add hello.py`
  - `git commit -m "Creamos el hello.py"`
  - `git push`
- Comprobamos los cambios en nuestro repo en GitHub





**¿PREGUNTAS?**

# GitHub

## Creando código

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~
$ cd git
git/      github-eii/

Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~
$ cd github-eii/

Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ git add hello.py

Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ git commit -m "Creamos el hello.py"
[main a4d5237] creamos el hello.py
 1 file changed, 1 insertion(+)
 create mode 100644 hello.py

Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 293 bytes | 293.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/idafensp/github-eii.git
  357abe6..a4d5237 main -> main
```



# GitHub

## Terminología

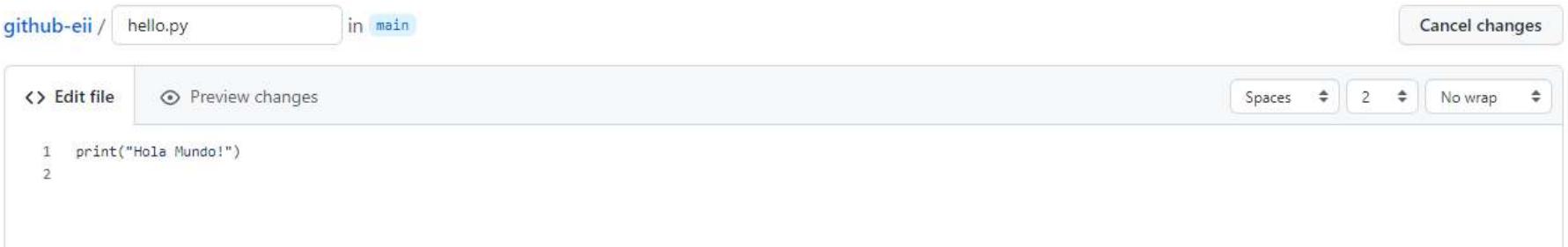
- **Pull:** se refiere a cuando se *recuperan cambios y se fusionan*. Por ejemplo, si alguien ha editado el archivo remoto en el que ambos están trabajando, querrás extraer esos cambios para tu copia local para que esté actualizado. También consulta recuperar.
- **Fetch:** Cuando usas *git fetch*, estás *agregando cambios desde el repositorio remoto a tu rama de trabajo* local sin confirmarlos. A diferencia de *git pull*, la recuperación te permite revisar los cambios antes de confirmarlos en tu rama local.



# GitHub

## Actualizando código desde GitHub

- Vamos a nuestro repositorio en GitHub (web)
  - Editamos el documento hello.py
  - Cambiamos el mensaje a “Hola Mundo!”
  - Realizamos un commit (desde la propia web)



The screenshot shows a GitHub code editor interface. At the top, it displays the repository path "github-eii / hello.py" and the branch "in main". On the right side, there are buttons for "Cancel changes", "Spaces", "2", and "No wrap". Below the header, there are two tabs: "Edit file" (selected) and "Preview changes". The code editor area contains the following Python code:

```
1 print("Hola Mundo!")
```



# GitHub

## Creando código

- Vamos al directorio local del repositorio
- Actualizamos el código desde GitHub a nuestro working
  - *git pull*
- Comprobamos que se ha actualizado el contenido del fichero en local





**¿PREGUNTAS?**

## GitHub

### Comprobando el estado e historial



- Modificamos el fichero *hello.py*
  - Cambiamos el mensaje a lo que queramos
  - Añadimos el fichero: *git add hello.py* (*o git add \**, *o git add .*)
  - Verificamos el estado *git status*
  - Commit and Push
- En el terminal ejecutamos
  - *git log*
  - Comprobamos que los cambios que vemos corresponden con los que hemos realizado



# GitHub

## Comprobando el historial

```
Idafen Santana Perez@DESKTOP-P6T8IPR MINGW64 ~/github-eii (main)
$ git log
commit 7831f2ee6ce4a4fce3acc95b43a26a86e9be230b (HEAD -> main, origin/main, origin/HEAD)
Author: Idafen Santana Pérez <idafensp@gmail.com>
Date:   Mon Nov 29 13:19:04 2021 +0000

    Cambiamos a español

commit a4d5237fb5bef4c0eec34e2642ff82249e77ebf6
Author: unknown <idafensp@gmail.com>
Date:   Mon Nov 29 13:15:30 2021 +0000

    creamos el hello.py

commit 357abe627c9f98cd955b5373ad5ffb79bfa57f32
Author: Idafen Santana Pérez <idafensp@gmail.com>
Date:   Fri Nov 26 13:04:56 2021 +0000

    Initial commit
```





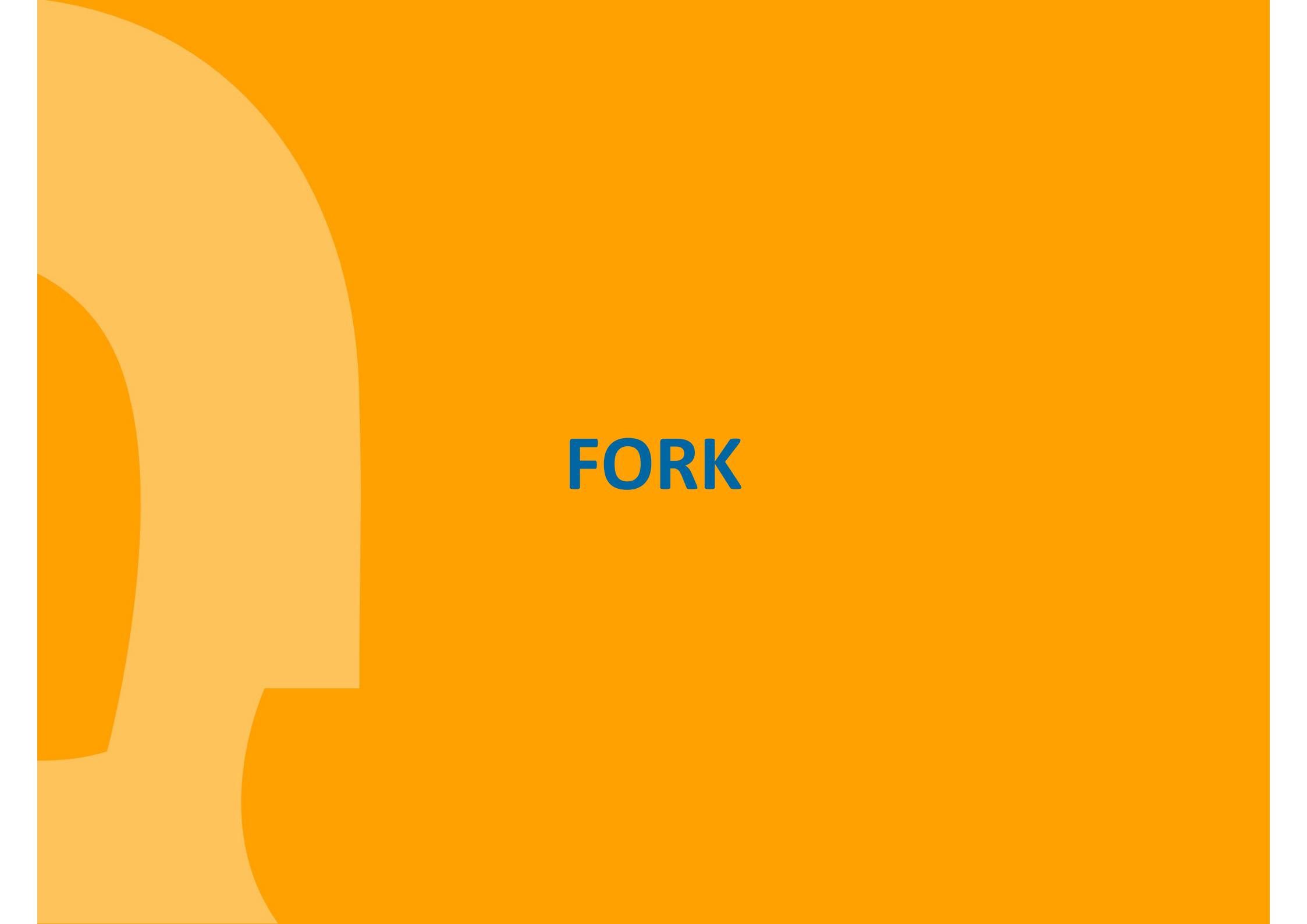
**¿PREGUNTAS?**

# Iniciación a Github

## Objetivo Día 1

- Saber que es Git
  - Comandos básicos
- Saber que es GitHub como plataforma
  - Cuenta en GitHub
  - Primer repositorio en GitHub
- Conceptos
  - Repositorio
  - Actualizar código en GitHub



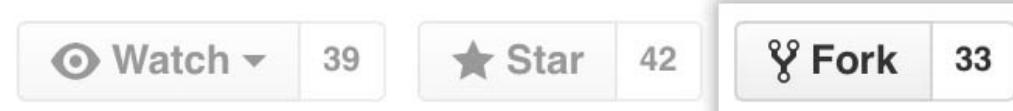


**FORK**

# GitHub

## Usando un repositorio común

- Fork: vamos a crear una copia del repositorio
  - <https://docs.github.com/es/get-started/quickstart/fork-a-repo>
  - Vamos al repositorio
    - <https://github.com/idafensp/gh-eii-repos>
    - Hacemos un fork



# GitHub

## Ejercicio final



- Fork del repo: <https://github.com/idafensp/gh-eii-repos>
- Esto nos crea nuestra copia <https://github.com/<USUARIO>/gh-eii-repos>
- Modificar el fichero lista.md (formato markdown)
  - Tu usuario Github y link a tu repo (en una línea)
    - [corsario85](<https://github.com/corsario85/prueba-gh-eii>)
- Add, commit, push a tu fork
  - O en la misma interfaz de Github
- Hacemos un *pull request*



# GitHub

## Ejercicio final



Two screenshots of a GitHub repository page are shown side-by-side. Both screenshots have a red box highlighting the top navigation bar and a red circle highlighting the 'Code' button in the top right corner of the main content area.

**Screenshot 1 (Top):**

- Repository Information:** corsario85 / gh-eii-repos (Public) forked from idafensp/gh-eii-repos
- Branch:** main (1 branch, 0 tags)
- Commit History:**
  - Initial commit by idafensp otro (0826a99, 2 days ago)
  - Initial commit by idafensp otro (0826a99, 2 days ago)
  - Initial commit by idafensp otro (0826a99, 2 days ago)
  - otro by idafensp otro (0826a99, 2 days ago)
- README.md:** gh-eii-repos  
Lista de repositorios de alumnos del curso de GitHub EII 2021
- Code Buttons:** Go to file, Add file, Code (highlighted with a red circle)
- About:** Lista de repositorios de alumnos del curso de GitHub EII 2021
- Readme:** Apache-2.0 License
- Releases:** No releases published. Create a new release
- Packages:** No packages published. Publish your first package

**Screenshot 2 (Bottom):**

- Repository Information:** corsario85 / gh-eii-repos (Public) forked from idafensp/gh-eii-repos
- Branch:** main (1 branch, 0 tags)
- Commit History:**
  - Initial commit by idafensp otro (0826a99, 2 days ago)
  - Initial commit by idafensp otro (0826a99, 2 days ago)
  - Initial commit by idafensp otro (0826a99, 2 days ago)
  - otro by idafensp otro (0826a99, 2 days ago)
- README.md:** gh-eii-repos  
Lista de repositorios de alumnos del curso de GitHub EII 2021
- Code Buttons:** Go to file, Add file, Code (highlighted with a red box)
- About:** Lista de repositorios de alumnos del curso de GitHub EII 2021
- Readme:** Apache-2.0 License
- Releases:** No releases published. Create a new release
- Packages:** No packages published. Publish your first package



# GitHub

## Ejercicio final



corsario85 / gh-eii-repos Public

forked from idafensp/gh-eii-repos

Watch

Code Pull requests Actions Projects Wiki Security Insights Settings

main ➔ gh-eii-repos / lista.md Go to file ...

corsario85 Añadiendo lista corsario85 Latest commit 0455a1d now History

2 contributors

1 lines (1 sloc) | 58 Bytes

Raw Blame

corsario85

The screenshot shows a GitHub repository page for 'corsario85 / gh-eii-repos'. A red box highlights the 'Pull requests' button in the top navigation bar. Another red box highlights the '2 contributors' section under the commit history for the file 'lista.md'. The commit message is 'Añadiendo lista corsario85' and it was made by 'corsario85'.



# GitHub

## Ejercicio final



**Welcome to pull requests!**

Pull requests help you collaborate or appear here in a searchable and fil

**Comparing changes**

Choose two branches to see what's changed or to start a new pull request. If you need to, you can also compare across forks.

base repository: idafensp/gh-eii-repos base: main head repository: corsario85/gh-eii-repos compare: main ✓ Able to merge. These branches can be automatically merged.

Create pull request

- 1 commit 1 file changed 1 contributor

Commits on Dec 1, 2021

Añadiendo lista corsario85 corsario85 committed 8 minutes ago Verified 0455a1d ⌂ ⌂ ⌂

Showing 1 changed file with 1 addition and 2 deletions.

3	list.md
...	@@ -1,2 +1 @@
1	- [idafensp](https://github.com/idafensp/github-eii)
2	- [pedro](https://github.com/idafensp/github-eii)
1	+ [corsario85](https://github.com/corsario85/prueba-gh-eii)

# GitHub

## Ejercicio final



Añadiendo lista corsario85 #1

[Open corsario85 wants to merge 1 commit into `idafensp:main` from `corsario85:main`](#)

Conversation 0 Commits 1 Checks 0 Files changed 1

 corsario85 commented now

No description provided.

 Añadiendo lista corsario85 Verified 0455a1d

Add more commits by pushing to the `main` branch on [corsario85/gh-eii-repos](#).

 This branch has no conflicts with the base branch  
Only those with write access to this repository can merge pull requests.

 Write Preview

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

[Close pull request](#) [Comment](#)

Remember, contributions to this repository should follow our GitHub Community Guidelines.



# GitHub

## Ejercicio final



Screenshot of a GitHub repository page for [idafensp / gh-eii-repos](#) (Public). The repository has 1 pull request.

The pull request list shows one open pull request:

- Añadiendo lista corsario85** #1 opened 1 minute ago by corsario85

Filters applied: is:pr is:open

Labels: 9

Milestones: 0

New pull request

Dismiss

ProTip! Exclude your own issues with -author:idafensp.





## Ejercicio final

### Añidiendo lista corsario85 #1

[Open](#) corsario85 wants to merge 1 commit into [idaefensp:main](#) from [corsario85:main](#)

Conversation 0 Commits 1 Checks 0 Files changed 1

**corsario85** commented 3 minutes ago

No description provided.

**Añiendo lista corsario85**

First-time GitHub contributor Verified 0455a1d

Add more commits by pushing to the `main` branch on [corsario85/gh-eii-repos](#).

**Continuous integration has not been set up**  
GitHub Actions and several other apps can be used to automatically catch bugs and enforce style.

**This branch has no conflicts with the base branch**  
Merging can be performed automatically.

[Merge pull request](#) You can also open this in GitHub Desktop or view command line instructions.

**Write** Preview

Leave a comment

Attach files by dragging & dropping, selecting or pasting them.

[Close pull request](#) [Comment](#)





**¡Gracias!**