

Módulo de nivelación y herramientas

Master en Business Intelligence y Big Data

Año de realización: 2017-2018

PROFESOR/A

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Introducción a GitHub

- GitHub es un repositorio que permite alojar proyectos utilizando el sistema de control de versiones.
- Se puede alojar el repositorio de forma pública o privada (creando una cuenta de pago) y ofrece herramientas para el trabajo en equipo, dentro de un proyecto.

Introducción a GitHub

Funcionalidades básicas:

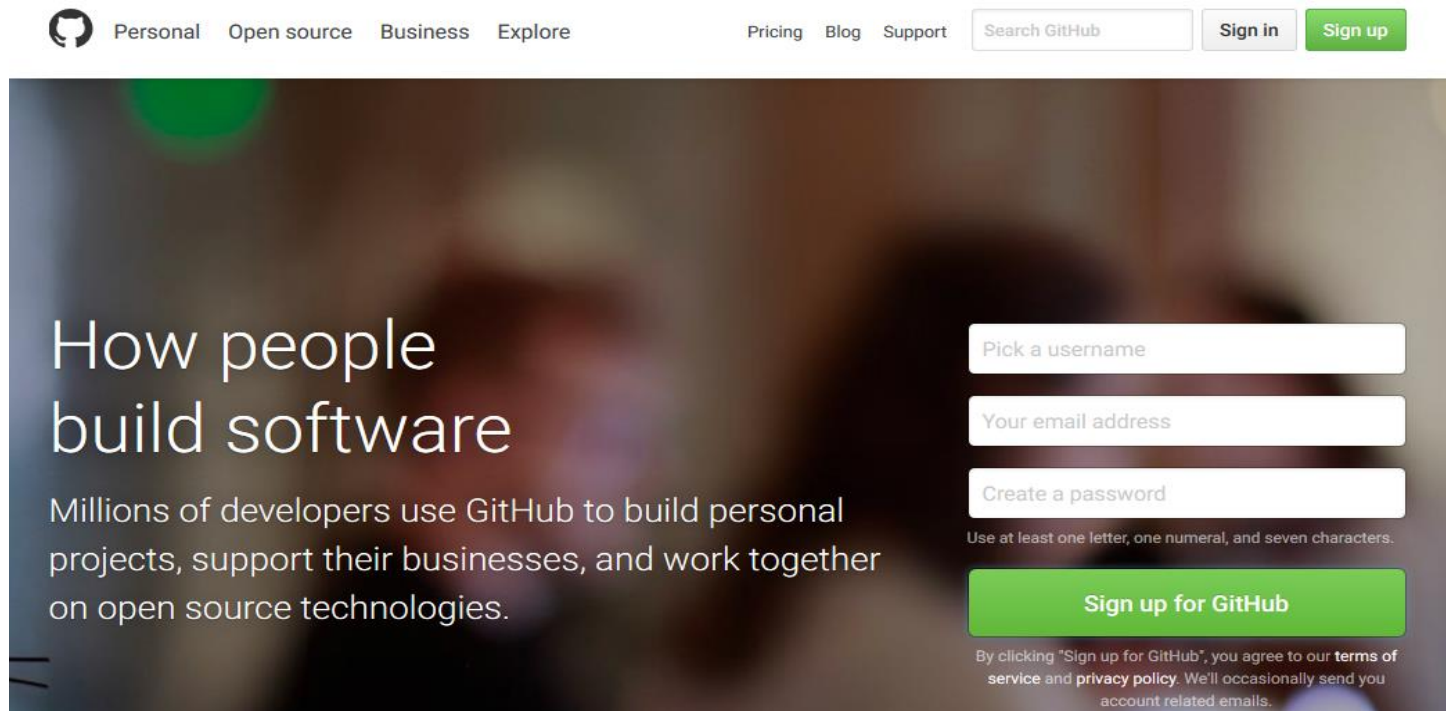
- Fork: Permite clonar un repositorio ajeno en nuestra cuenta.
- Pull: Permite enviar una modificación realizada en un repositorio para actualizarlo.

Introducción a GitHub

Herramientas de trabajo:

- Una **wiki** para el mantenimiento de las distintas versiones de las páginas.
- Un **sistema de seguimiento de problemas** que permite detallar un problema con el software o una sugerencia que se desea hacer.
- Una **herramienta de revisión de código**, donde se pueden añadir anotaciones en cualquier punto de un fichero y debatir sobre determinados cambios realizados en un commit específico.
- Un **visor de ramas** donde se pueden comparar los progresos realizados en las distintas ramas de un repositorio.

Crear una cuenta en GitHub



The screenshot shows the GitHub homepage with a focus on the sign-up process. The navigation bar at the top includes links for Personal, Open source, Business, and Explore, along with Pricing, Blog, and Support. A search bar and Sign in/Sign up buttons are also present. The main content area features a large heading 'How people build software' and a subheading 'Millions of developers use GitHub to build personal projects, support their businesses, and work together on open source technologies.' To the right, there is a sign-up form with three input fields: 'Pick a username', 'Your email address', and 'Create a password'. Below the password field, a note states 'Use at least one letter, one numeral, and seven characters.' A green 'Sign up for GitHub' button is positioned below the form. At the bottom of the form, a disclaimer reads: 'By clicking "Sign up for GitHub", you agree to our terms of service and privacy policy. We'll occasionally send you account related emails.'

Personal Open source Business Explore Pricing Blog Support Search GitHub Sign in Sign up

How people build software

Millions of developers use GitHub to build personal projects, support their businesses, and work together on open source technologies.

Pick a username

Your email address

Create a password

Use at least one letter, one numeral, and seven characters.

Sign up for GitHub

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We'll occasionally send you account related emails.

Crear una cuenta en GitHub

Join GitHub

The best way to design, build, and ship software.

Step 1:
Set up a personal account

Step 2:
Choose your plan

Step 3:
Tailor your experience

Create your personal account

Username

This will be your username — you can enter your organization's username next.

Email Address

You will occasionally receive account related emails. We promise not to share your email with anyone.

Password

Use at least one lowercase letter, one numeral, and seven characters.

By clicking on "Create an account" below, you are agreeing to the [Terms of Service](#) and the [Privacy Policy](#).

Create an account

You'll love GitHub

- Unlimited collaborators
- Unlimited public repositories
- Great communication
- Frictionless development
- Open source community

Crear una cuenta en GitHub

Welcome to GitHub

You've taken your first step into a larger world, @asarasa2016.



Completed
Set up a personal account



Step 2:
Choose your plan



Step 3:
Tailor your experience

Choose your personal plan

- ☒ Unlimited public repositories for free.
- ☐ Unlimited private repositories for \$7/month. ([view in EUR](#))

Don't worry, you can cancel or upgrade at any time.

- ☐ **Help me set up an organization next**
Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees.
[Learn more about organizations.](#)

Continue




Both plans include:

- ✓ Collaborative code review
- ✓ Issue tracking
- ✓ Open source community
- ✓ Unlimited public repositories
- ✓ Join any organization

Crear una cuenta en GitHub

Welcome to GitHub

You'll find endless opportunities to learn, code, and create, @asarasa2016.

 Completed Set up a personal account	 Step 2: Choose your plan	 Step 3: Tailor your experience
---	--	--

How would you describe your level of programming experience?

- ☐ Totally new to programming
 ☐ Somewhat experienced
 ☐ Very experienced

What do you plan to use GitHub for? (check all that apply)

- ☐ Research
 ☐ School projects
 ☐ Design
☐ Development
 ☐ Project Management
 ☐ Other (please specify)

Which is closest to how you would describe yourself?

- ☐ I'm a professional
 ☐ I'm a hobbyist
 ☐ I'm a student
☐ Other (please specify)

What are you interested in?

e.g. tutorials, android, ruby, web-development, machine-learning, open-source

[skip this step](#)

Crear un repositorio


- En la esquina superior derecho , junto al avatar, pulsamos y se selecciona “New repository”.
- Se da un nombre al nuevo repositorio.
- Se escribe una corta descripción.
- Se selecciona inicializar el repositorio con un README (sirve para añadir información sobre el repositorio)

Crear un repositorio

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

 asarasa2016 ▾

Repository name


/ Prueba ✓

Great repository names are short and memorable. Need inspiration? How about **supreme-octo-engine**.

Description (optional)

Es un repositorio de prueba

☒  **Public**
Anyone can see this repository. You choose who can commit.

☐  **Private**
You choose who can see and commit to this repository.

☒ **Initialize this repository with a README**

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

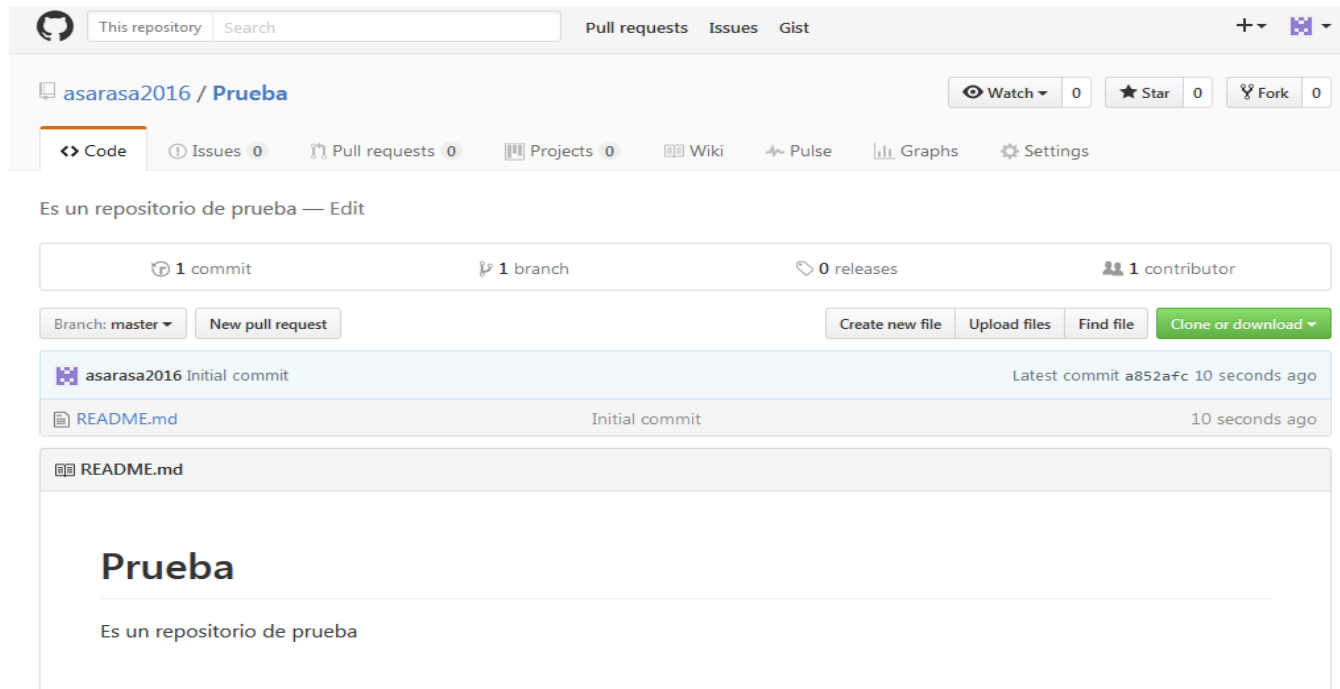
Add .gitignore: **None** ▾

Add a license: **None** ▾



Create repository

Crear un repositorio



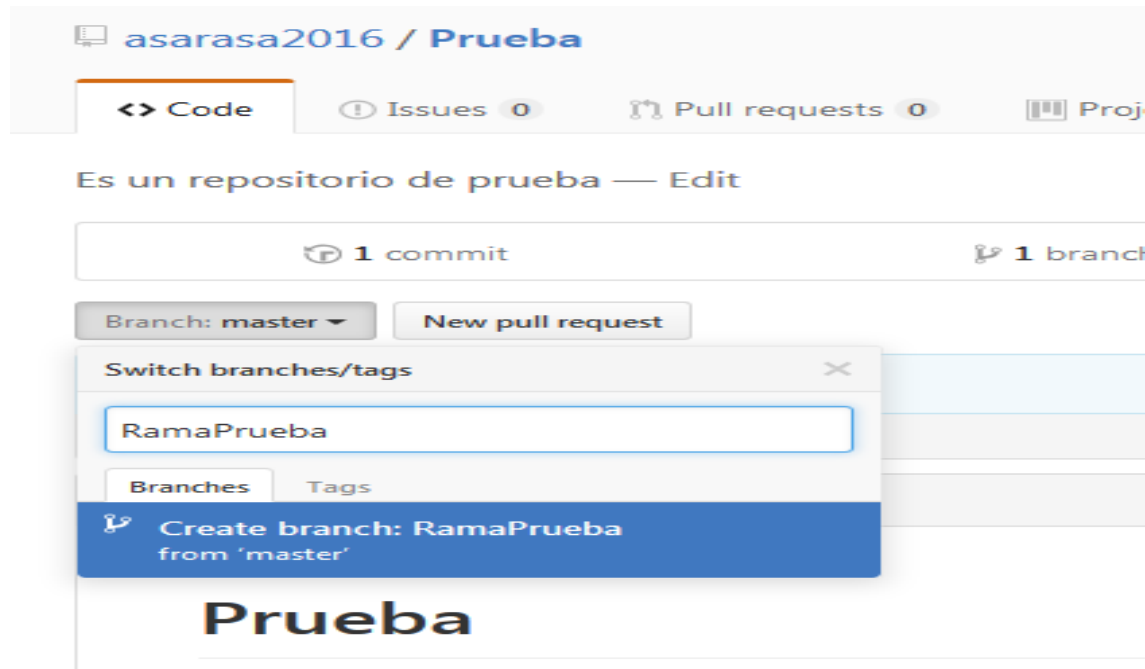
Ramas

- Las ramas permiten tener diferentes versiones de un repositorio.
- Por defecto hay una rama denominada “Master” que se considera definitiva. En este sentido se usan las ramas para experimentar y realizar actualizaciones antes de modificar la rama “Master”.
- Cuando se crea una rama se está haciendo una copia de la rama “Master” en el estado actual.

Ramas

- Para crear una rama:
 - Ir al repositorio en el que se va a crear la rama.
 - Se pulsa en el desplegable de la parte superior que dice: “branch:master”.
 - En el formulario que aparece, se introduce el nombre de la rama, “RamaPrueba”.
 - Se pulsa Enter para crear la rama.

Ramas



Ramas

The screenshot shows the GitHub interface for a repository named 'Prueba' by user 'asarasa2016'. At the top, there's a navigation bar with 'Pull requests', 'Issues', and 'Gist'. Below this, the repository name and owner are displayed, along with 'Watch', 'Star', and 'Fork' buttons, all showing zero counts. A secondary navigation bar includes 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The main content area states 'Es un repositorio de prueba — Edit'. A summary bar shows '1 commit', '2 branches', '0 releases', and '1 contributor'. Below this, there are buttons for 'Branch: RamaPrueba', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A message indicates 'This branch is even with master.' with links to 'Pull request' and 'Compare'. A commit history table shows one commit: 'Initial commit' by 'asarasa2016' 10 minutes ago. Below the table, the 'README.md' file is previewed, showing the title 'Prueba' and the text 'Es un repositorio de prueba'.

This repository

Search

Pull requests Issues Gist

asarasa2016 / Prueba

Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Es un repositorio de prueba — Edit

1 commit 2 branches 0 releases 1 contributor

Branch: RamaPrueba New pull request

Create new file Upload files Find file Clone or download

This branch is even with master. Pull request Compare

asarasa2016 Initial commit	Latest commit a852afc 10 minutes ago
README.md Initial commit	10 minutes ago

README.md

Prueba

Es un repositorio de prueba

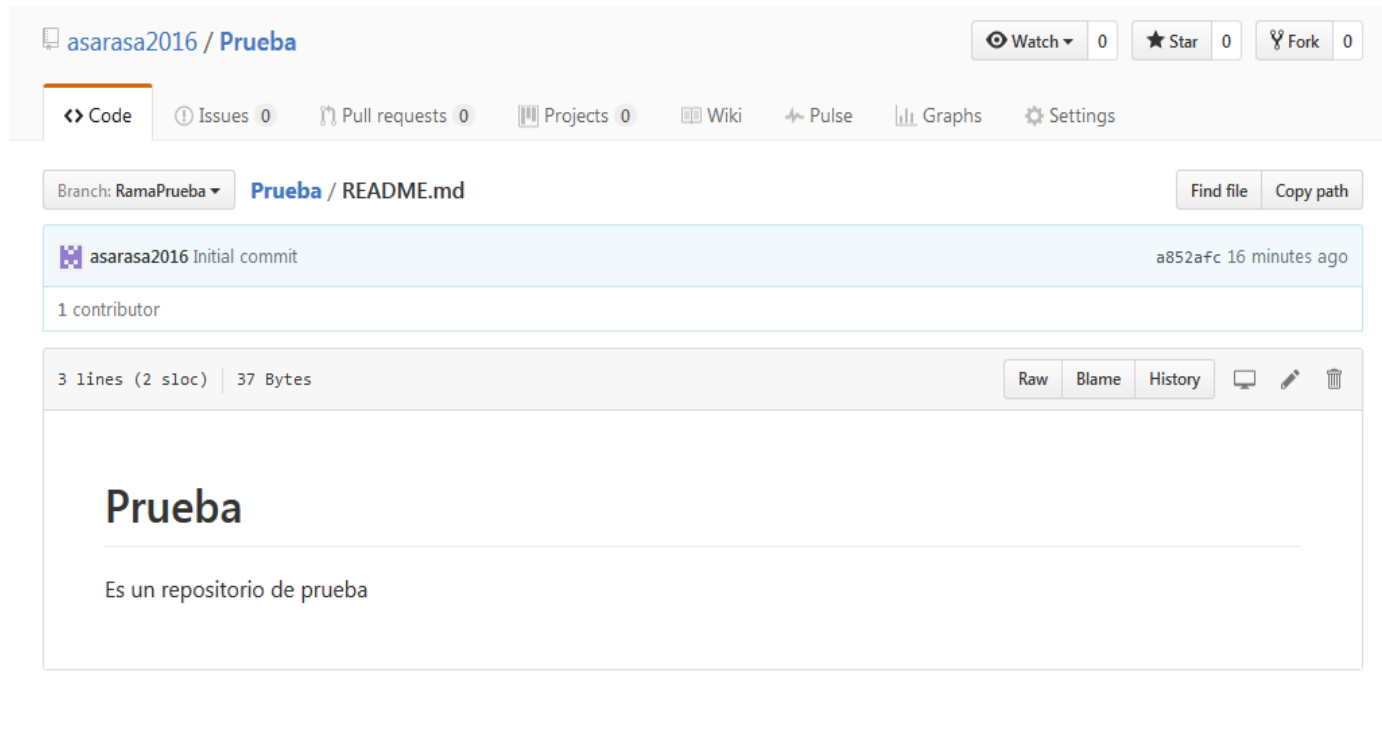
Hacer cambios en una rama

- Un cambio en Github es un commit.
- Cada commit tiene asociado un mensaje que indica el cambio que se ha realizado.

Hacer cambios en una rama

- Para hacer un commit:
 - Se pulsa sobre el archivo README.md.
 - A continuación se pulsa sobre el icono del lapiz que aparece en la parte superior del archivo para poder editarlo.
 - En el editor se describe algo sobre la rama.
 - En el mensaje asociado al commit se explica el cambio realizado.
 - Se pulsa sobre el botón “Commit”.

Hacer cambios en una rama



Hacer cambios en una rama

This repository Search Pull requests Issues Gist

asarasa2016 / Prueba Watch 0 Star 0 Fork 0

Code Issues 0 Pull requests 0 Projects 0 Wiki Pulse Graphs Settings

Prueba / README.md or cancel

Edit file Preview changes Spaces 2 Soft wrap

```
1 # Prueba
2 Es un repositorio de prueba
3
4 Esta rama es una prueba..
```

Commit changes

Primer cambio

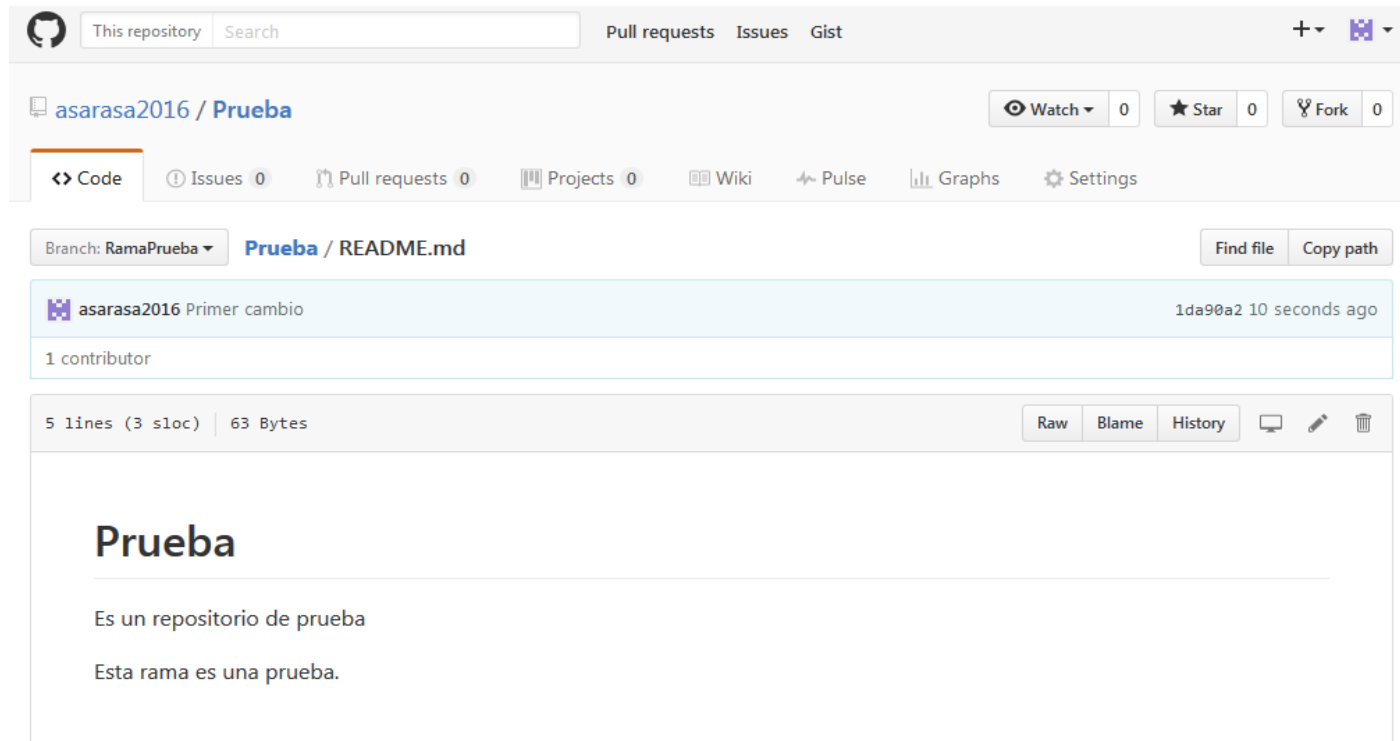
Algún cambio realizado

☒ Commit directly to the RamaPrueba branch.

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

Commit changes Cancel

Hacer cambios en una rama



Realizar un pull

- Una petición Pull consiste en solicitar que los cambios que se han realizado en una rama sirvan para actualizar la rama “Master”.
- Cuando se realiza la petición se, mostrarán los cambios de contenidos entra ambas ramas en color rojo y verde.

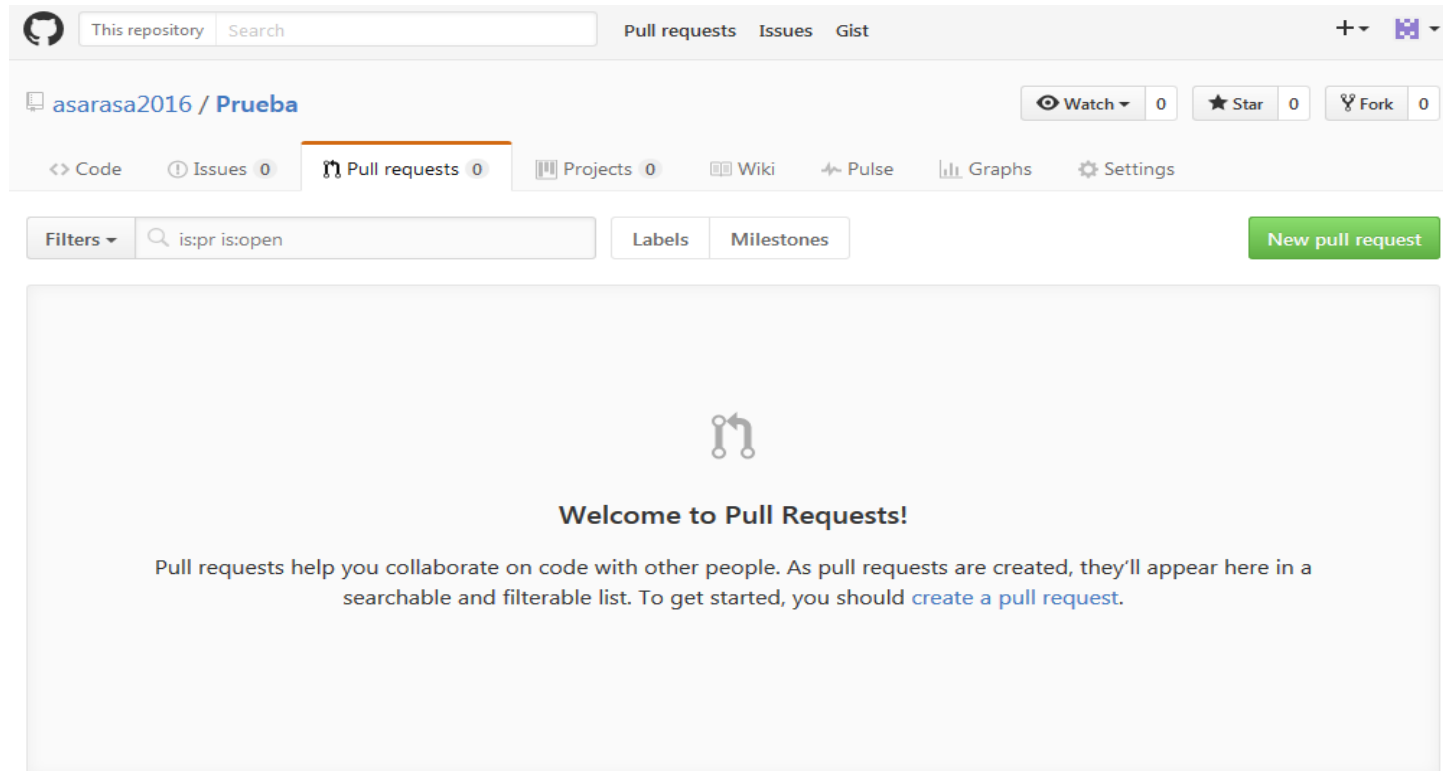
Realizar un pull

- Para ello:
 - Se pulsa sobre el enlace denominado “Pull Request”, y entonces nos lleva a la página asociada. En dicha página se pulsa sobre el botón verde “New pull request”.

Realizar un pull

The screenshot shows the GitHub interface for the repository 'asarasa2016 / Prueba'. At the top, there's a search bar and navigation links for 'Pull requests', 'Issues', and 'Gist'. Below the repository name, there are buttons for 'Watch', 'Star', and 'Fork', each with a count of 0. A horizontal menu contains links for 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The main content area shows the 'Branch: RamaPrueba' and the file 'Prueba / README.md'. A commit history section shows a commit by 'asarasa2016' with the message 'Primer cambio' and a timestamp of '1da90a2 5 minutes ago'. Below this, it indicates '1 contributor'. The file details show '5 lines (3 sloc)' and '63 Bytes'. On the right, there are buttons for 'Raw', 'Blame', and 'History', along with icons for file operations. The main content of the README.md file is displayed, starting with the title 'Prueba' followed by two lines of text: 'Es un repositorio de prueba' and 'Esta rama es una prueba.'

Realizar un pull



Realizar un pull

- Se selecciona la rama que se quiere comparar con la original.

base: master ... compare: RamaPrueba

Choose a head branch

Branch, tag, commit, or history marker

✓ RamaPrueba

master

Create pull request

Discuss and review changes.

Compare and review just about anything

Branches, tags, commit ranges, and time ranges. In the same repository and across forks.

EXAMPLE COMPARISONS

RamaPrueba	9 minutes ago
master@{1day}...master	24 hours ago

Realizar un pull

- Se realiza la comparación automáticamente.

The screenshot shows the GitHub interface for a pull request. At the top, the repository is 'asarasa2016 / Prueba'. Below the repository name, there are tabs for 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The 'Pull requests' tab is active, showing a comparison between the 'master' branch and the 'RamaPrueba' branch. A green button 'Create pull request' is visible. Below this, a summary shows '1 commit', '1 file changed', '0 commit comments', and '1 contributor'. The commit is dated 'Oct 21, 2016' and is by 'asarasa2016'. The file 'README.md' is shown with a diff view, highlighting the changes. The diff shows the addition of a new branch 'Prueba' and its description. At the bottom, it states 'No commit comments for this range'.

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: master ... compare: RamaPrueba ✓ Able to merge. These branches can be automatically merged.

Create pull request Discuss and review the changes in this comparison with others.

1 commit 1 file changed 0 commit comments 1 contributor

Commits on Oct 21, 2016

asarasa2016 Primer cambio ... 1da90a2

Showing 1 changed file with 2 additions and 0 deletions.

Unified Split

2 README.md

```
@@ -1,2 +1,4 @@
1 # Prueba
2 Es un repositorio de prueba
3 +
4 +Esta rama es una prueba.
```

No commit comments for this range

Realizar un pull

- Se pulsa sobre el botón verde “Create pull request”

The screenshot shows the GitHub 'Open a pull request' page for the repository 'asarasa2016 / Prueba'. The interface includes a header with navigation links (Pull requests, Issues, Gist) and repository statistics (Watch, Star, Fork). The main section is titled 'Open a pull request' and provides instructions on how to create a new pull request. It shows a comparison between the 'master' branch and the 'RamaPrueba' branch, indicating that the changes are 'Able to merge'. The 'Write' tab is active, showing a title 'Primer cambio' and a description 'Algún cambio realizado'. A green 'Create pull request' button is visible at the bottom right. The footer shows commit details: 1 commit, 1 file changed, 0 commit comments, and 1 contributor, dated Oct 21, 2016.

base: master ... compare: RamaPrueba ✓ Able to merge. These branches can be automatically merged.

Primer cambio

Write Preview

Algún cambio realizado

Attach files by dragging & dropping or [selecting them](#).

Styling with Markdown is supported

Create pull request

1 commit 1 file changed 0 commit comments 1 contributor

Commits on Oct 21, 2016

Realizar un pull

- Se pulsa sobre el botón verde “Create pull request”

The screenshot shows a GitHub pull request interface. At the top, the repository is 'asarasa2016 / Prueba'. The pull request title is 'Primer cambio #1'. The description states: 'asarasa2016 wants to merge 1 commit into master from RamaPrueba'. Below this, there's a comment from 'asarasa2016' saying 'Algún cambio realizado'. A green checkmark indicates 'This branch has no conflicts with the base branch'. A green button 'Merge pull request' is visible. The right sidebar shows metadata: Projects (None yet), Labels (None yet), Milestone (No milestone), Assignees (No one—assign yourself), and 1 participant. At the bottom, there's a comment box and a 'Close pull request' button.

Realizar un pull

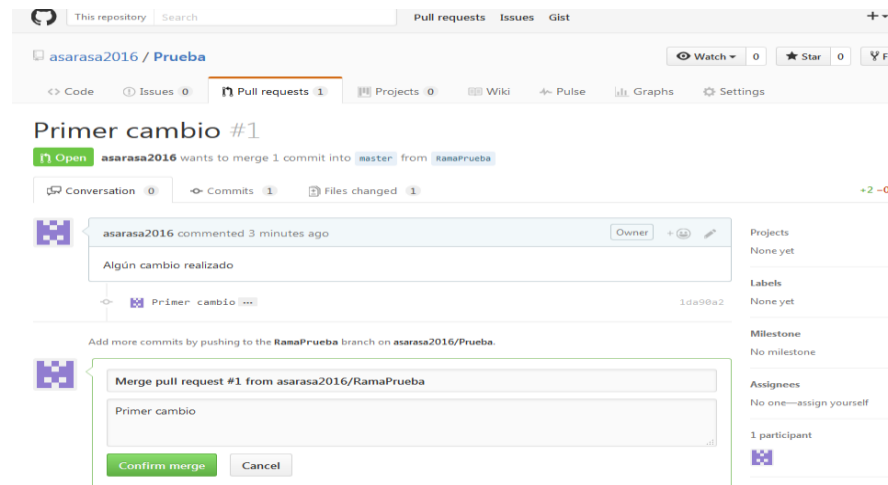
- Se pulsa sobre el botón verde “Create pull request”

The screenshot shows a GitHub pull request interface for the repository 'asarasa2016 / Prueba'. The pull request is titled 'Primer cambio #1' and is created by 'asarasa2016'. It shows 1 commit from the 'RamaPrueba' branch being merged into the 'master' branch. The interface includes a 'Conversation' tab with a comment from 'asarasa2016' stating 'Algún cambio realizado'. A green checkmark indicates 'This branch has no conflicts with the base branch'. A 'Merge pull request' button is visible. The right sidebar shows metadata like 'Labels', 'Milestone', and 'Assignees'. At the bottom, there is a 'Write' section for adding comments and a 'ProTip!' about commenting on specific lines.

Mezclar

- En la pantalla que ha aparecido, se pulsa sobre el botón verde “Merge pull request” para mezclar los cambios con la rama “Master”.
- Se confirma la mezcla.
- Se va a la parte superior, y se borra la rama pues los cambios ya han sido incorporados. Se usa el botón “Delete branch”.

Mezclar

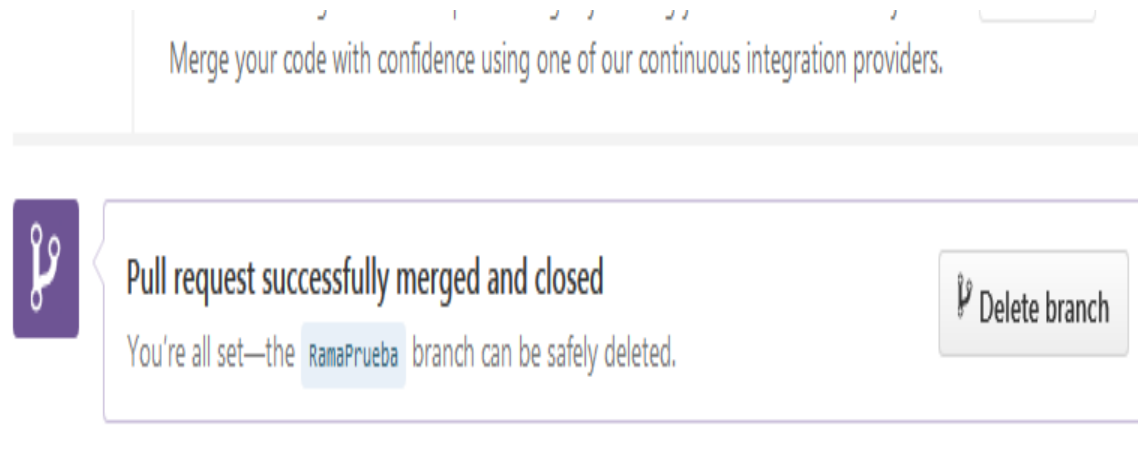


Mezclar

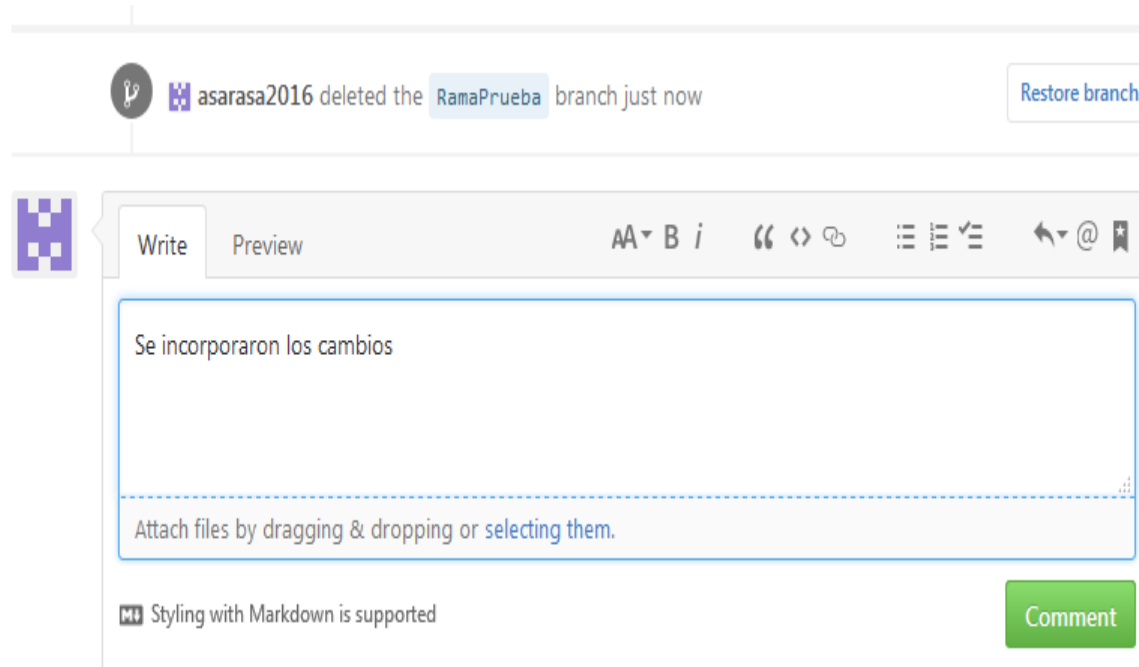
The screenshot shows a GitHub pull request titled "Primer cambio #1" in the repository "asarasa2016 / Prueba". The pull request is merged and closed. The interface includes a header with repository navigation (Code, Issues, Pull requests, Projects, Wiki, Pulse, Graphs, Settings) and a sidebar with repository statistics (Watch, Star, Fork). The main content area displays the pull request details, including a comment from "asarasa2016" stating "Algún cambio realizado", a commit "28fbd02" merged into "master", and a notification "Pull request successfully merged and closed". The right sidebar shows repository settings for Projects, Labels, Milestone, Assignees, and Notifications.

Mezclar

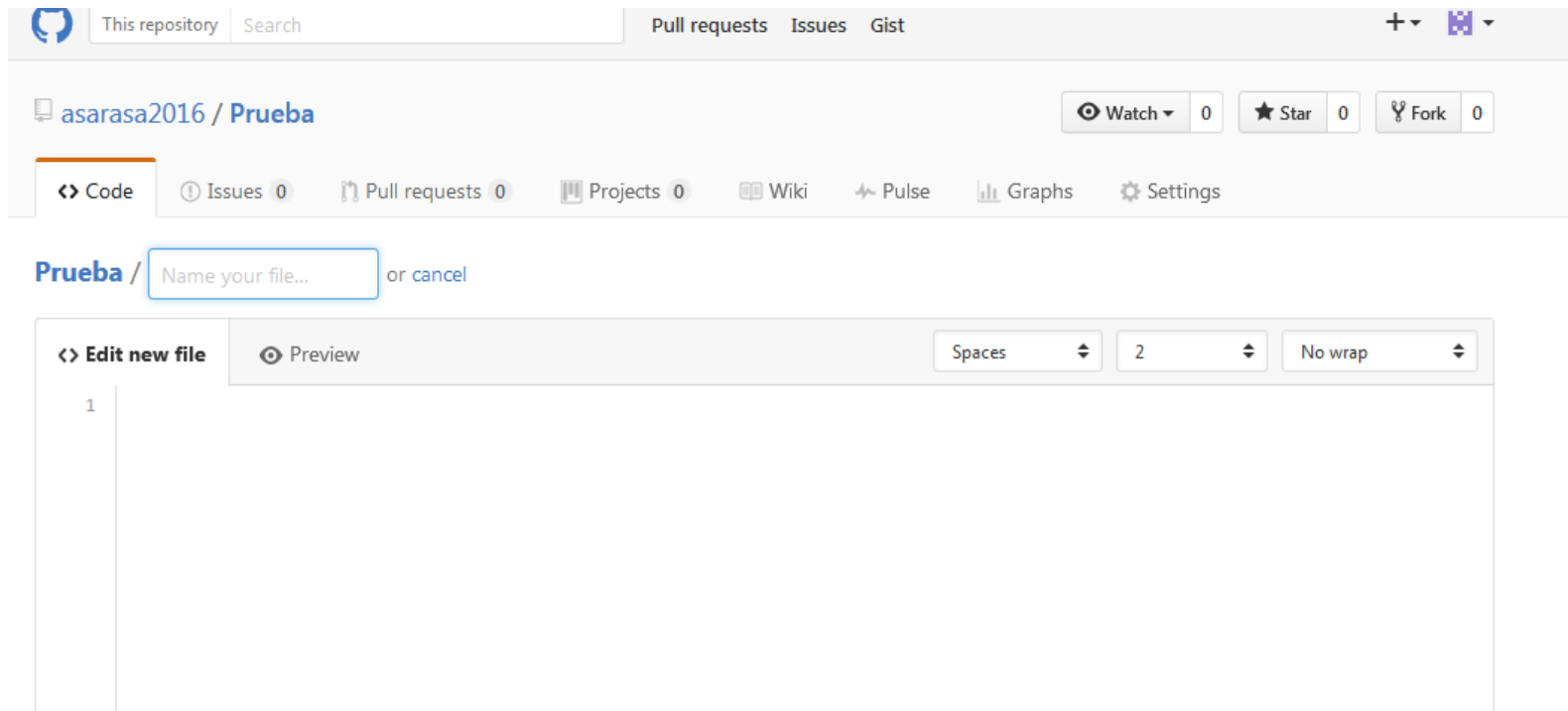
- Se va a la parte superior, y se borra la rama pues los cambios ya han sido incorporados. Se usa el botón “Delete branch”.



Mezclar



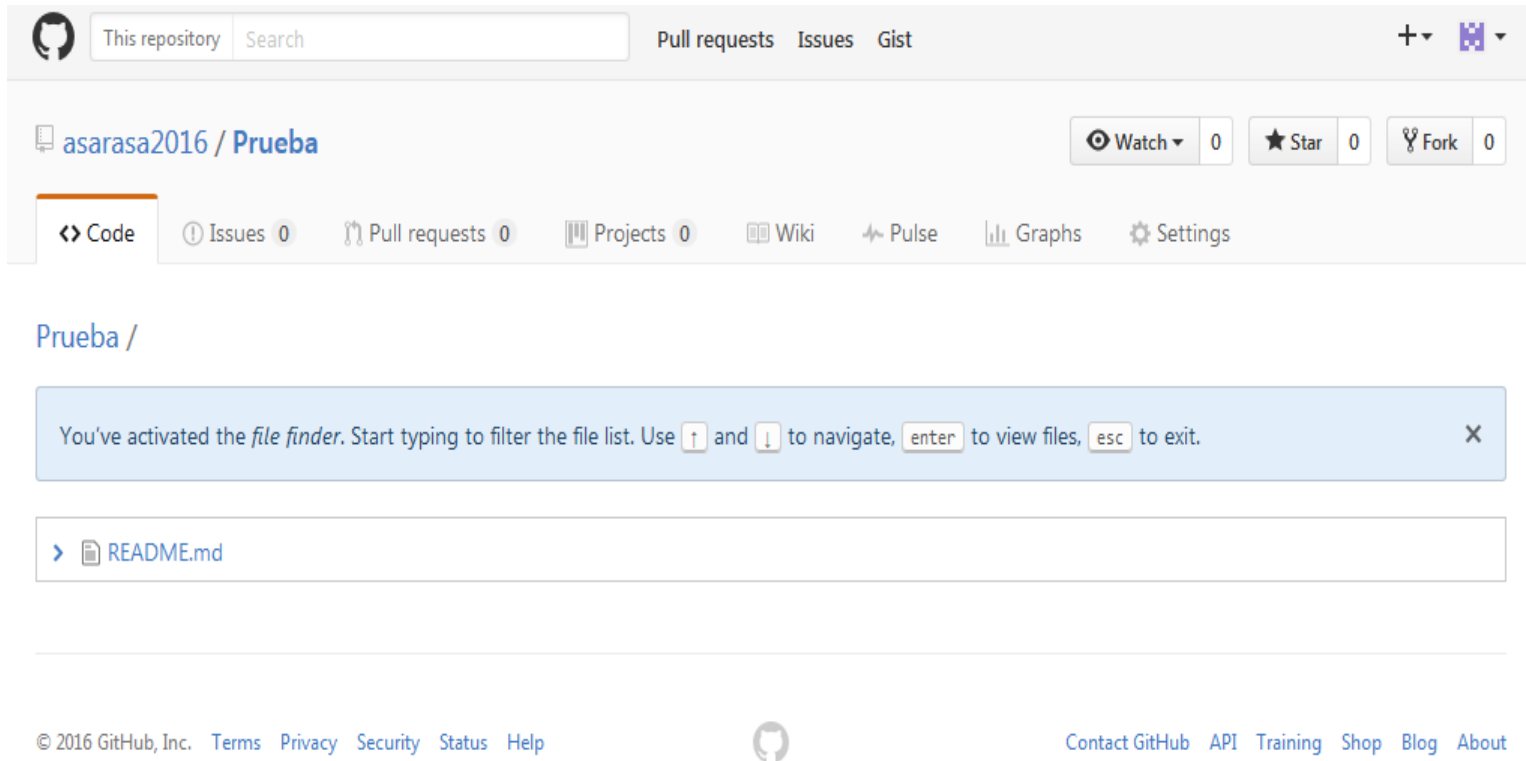
Otras operaciones: Crear nuevo archivo



Otras operaciones: Subir archivos

The screenshot shows the GitHub web interface for a repository named 'asarasa2016 / Prueba'. The top navigation bar includes 'Pull requests', 'Issues', and 'Gist'. Below the repository name, there are tabs for 'Code', 'Issues', 'Pull requests', 'Projects', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The 'Code' tab is active, displaying a large area with icons for adding files and the text 'Drag files here to add them to your repository' and 'Or choose your files'. Below this, a 'Commit changes' dialog is open, featuring a text input for 'Add files via upload', a larger text area for 'Add an optional extended description...', and two radio button options: 'Commit directly to the master branch.' (selected) and 'Create a new branch for this commit and start a pull request. Learn more about pull requests.'. At the bottom of the dialog are 'Commit changes' and 'Cancel' buttons.

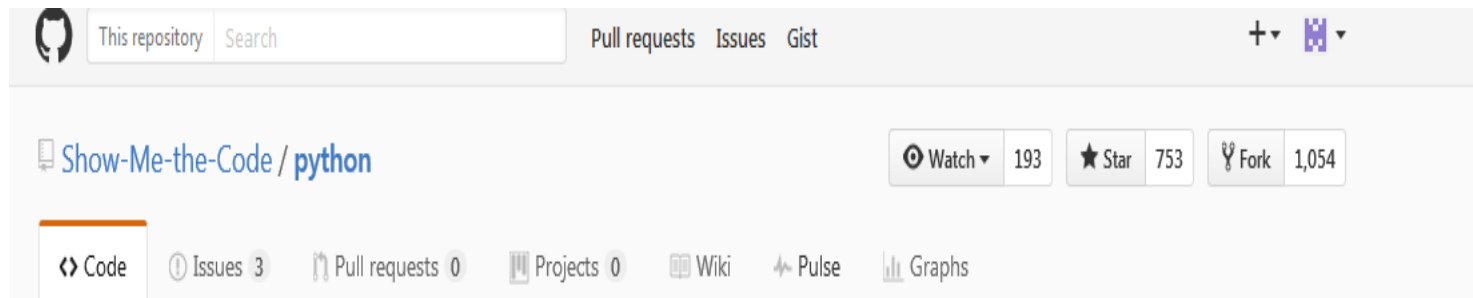
Otras operaciones: Buscar archivos



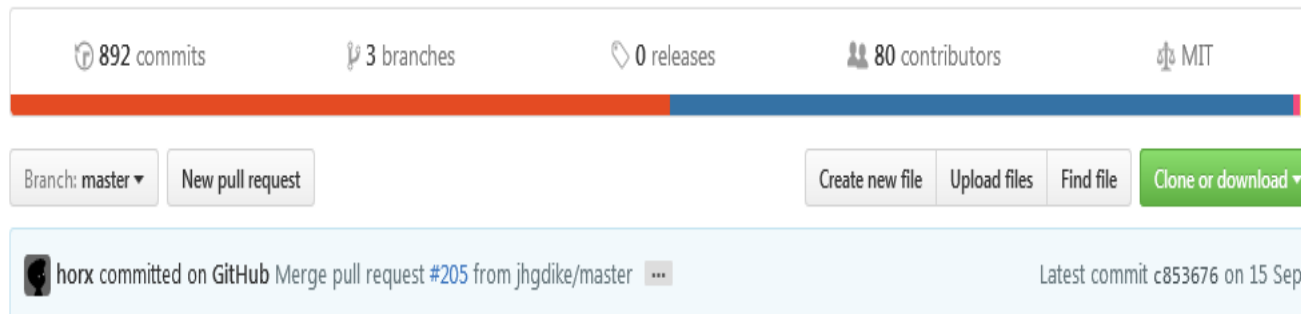
Otras operaciones: Clonar o bajarse el repositorio

The screenshot shows the GitHub interface for the repository 'asarasa2016 / Prueba'. At the top, there's a search bar and navigation links for 'Pull requests', 'Issues', and 'Gist'. Below the repository name, there are statistics: 'Watch 0', 'Star 0', and 'Fork 0'. A navigation bar includes 'Code', 'Issues 0', 'Pull requests 0', 'Projects 0', 'Wiki', 'Pulse', 'Graphs', and 'Settings'. The main content area states 'Es un repositorio de prueba — Edit' and shows '3 commits', '1 branch', '0 releases', and '1 contributor'. A 'Branch: master' dropdown and a 'New pull request' button are visible. A 'Clone or download' button is highlighted, opening a dropdown menu with options: 'Clone with HTTPS' (selected), 'Use SSH', 'Open in Desktop', and 'Download ZIP'. The 'Clone with HTTPS' option provides the URL 'https://github.com/asarasa2016/Prueba.git'. Below the menu, the repository's README is visible, starting with 'Prueba' and 'Es un repositorio de prueba'.

Otras operaciones: Copiar un repositorio



Show Me the Code Python version. <https://github.com/Show-Me-the-Code/show-me-the-code>



Otras operaciones: Copiar un repositorio

The screenshot shows the GitHub interface for a repository named 'python' by user 'asarasa2016', which is a fork of 'Show-Me-the-Code/python'. The repository has 0 Watchers, 0 Stars, and 1,054 Forks. The 'Code' tab is selected, showing options for Pull requests (0), Projects (0), Wiki, Pulse, Graphs, and Settings. Below the repository header, it states 'Show Me the Code Python version. <https://github.com/Show-Me-the-Code/show-me-the-code> — Edit'. A summary bar indicates 892 commits, 3 branches, 0 releases, and 80 contributors. Action buttons include 'Branch: master', 'New pull request', 'Create new file', 'Upload files', 'Find file', and 'Clone or download'. A commit message is visible: 'horx committed on GitHub Merge pull request #205 from jhgdike/master', with the latest commit 'c853676' on '15 Sep'. A file '4disland/0000' is shown with a 'del' status, dated 'a year ago'.

Otras operaciones: Borrar un repositorio

GitHub Pages

GitHub Pages is designed to host your personal, organization, or project pages from a GitHub repository.

Source

GitHub Pages is currently disabled. Select a source below to enable GitHub Pages for this repository. [Learn more.](#)

None
Save

Automatic page generator

Create a beautiful site for your project with our automatic GitHub Pages generator. Author your content in our Markdown editor, select a theme, then publish.

Launch automatic page generator

Custom and Jekyll-based sites

To publish a page manually, push an HTML or Jekyll site to a branch named `gh-pages`. Read the [Pages help article](#) for more information.

Danger Zone

Make this repository private

Public forks can't be made private. Please [duplicate the repository](#).

Make private

Transfer ownership

Transfer this repository to another user or to an organization where you have admin rights.

Transfer

Delete this repository

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

Delete this repository

Gestionar GitHub desde Windows

GitHub Desktop

[Overview](#) | [Release Notes](#) | [Help](#)

Simple collaboration from your desktop

GitHub Desktop is a seamless way to contribute to projects on GitHub and GitHub Enterprise.

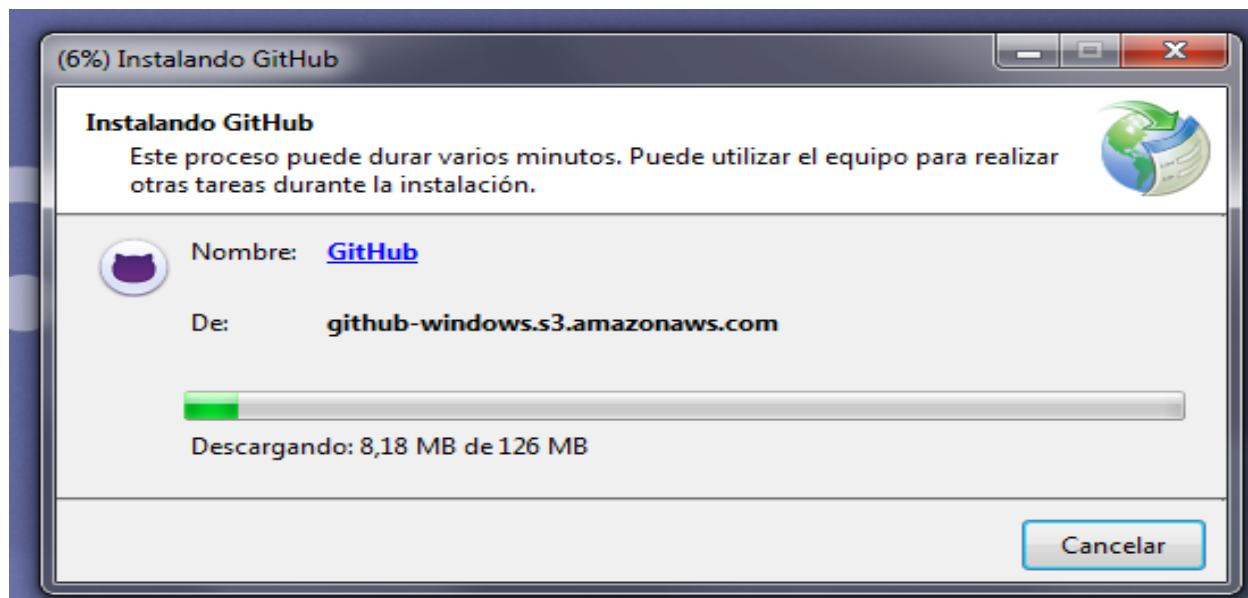
Available for Mac and [Windows](#)

Download GitHub Desktop

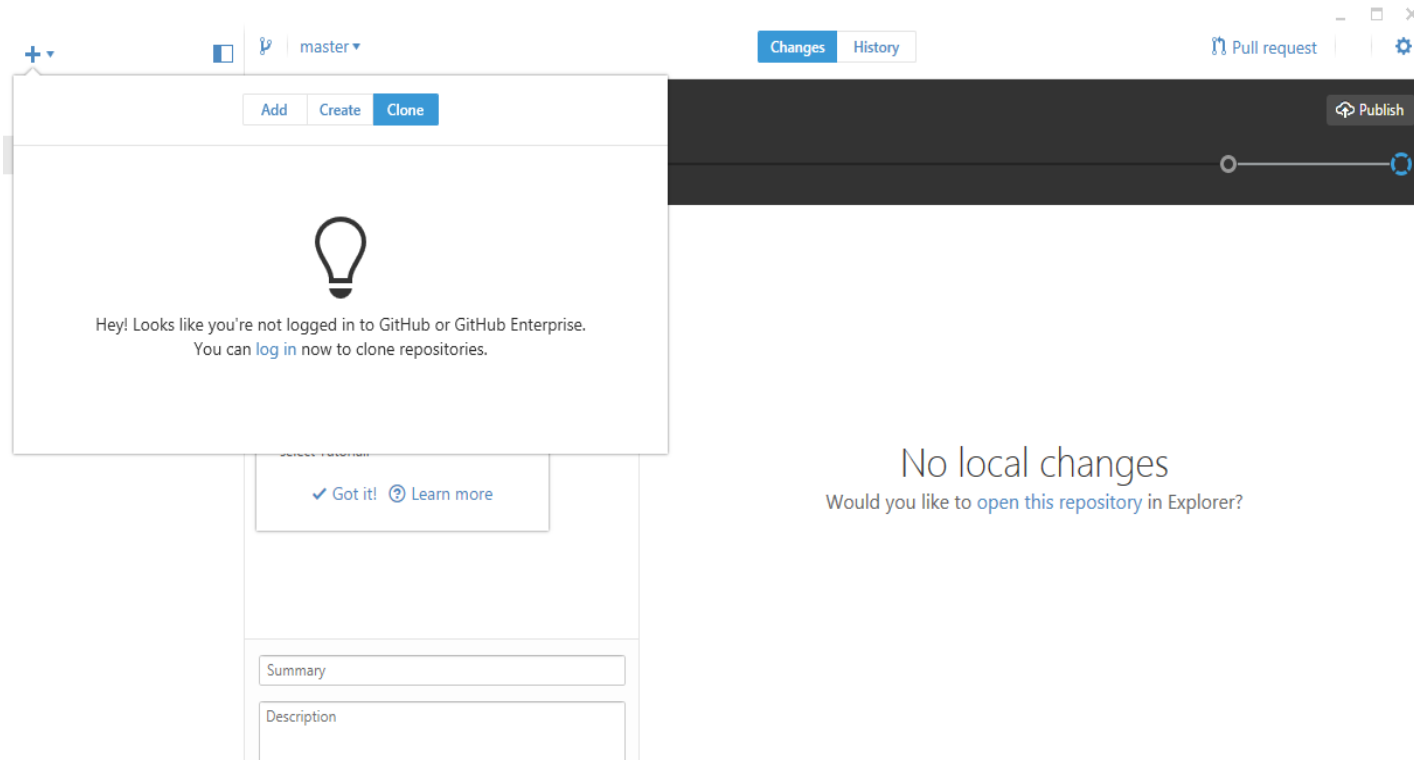
Windows 7 or later

By clicking the Download button you agree to the
End-User License Agreement

Gestionar GitHub desde Windows



Gestionar GitHub desde Windows



Gestionar GitHub desde consola

- GitHub se puede gestionar desde una consola usando comandos. Una guía sencilla que resume los principales comandos se encuentra en:
<http://rogerdudler.github.io/git-guide/index.es.html>