

**GIT, GITHUB,
GITHUB ACTIONS**



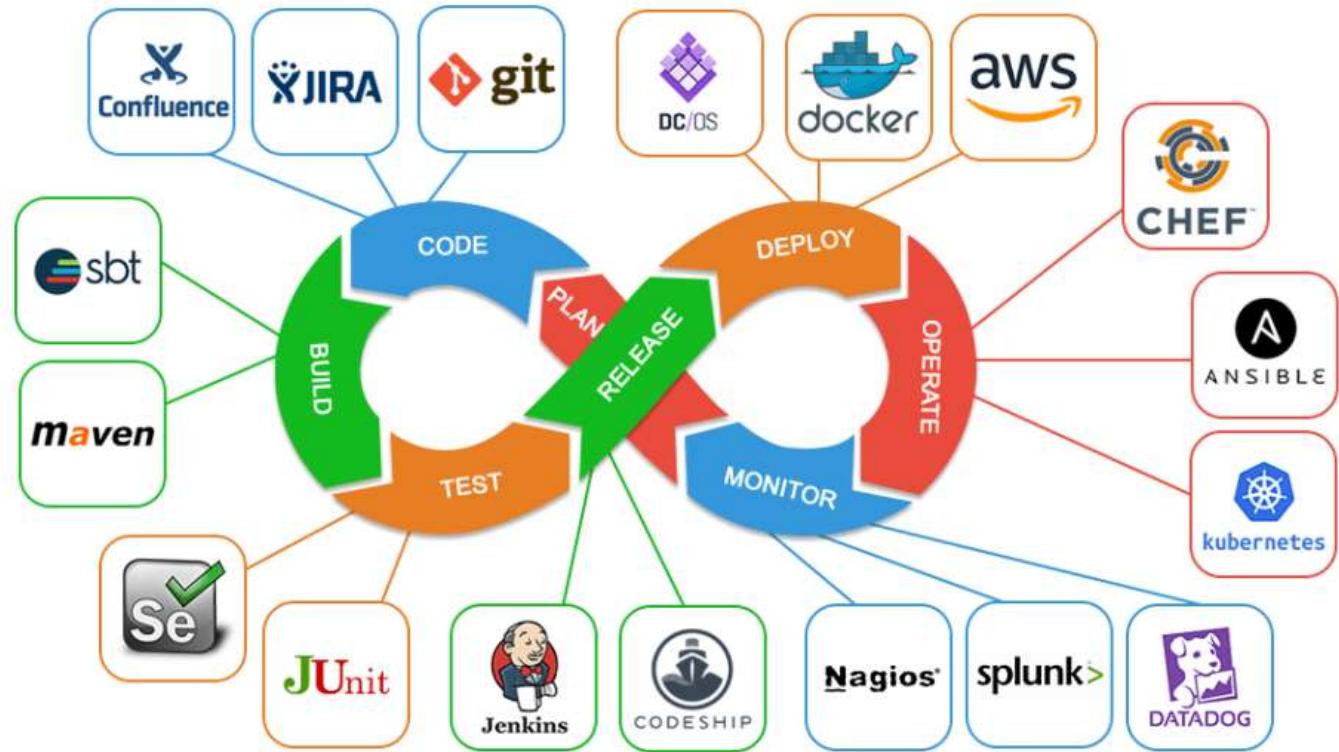
ÍNDICE

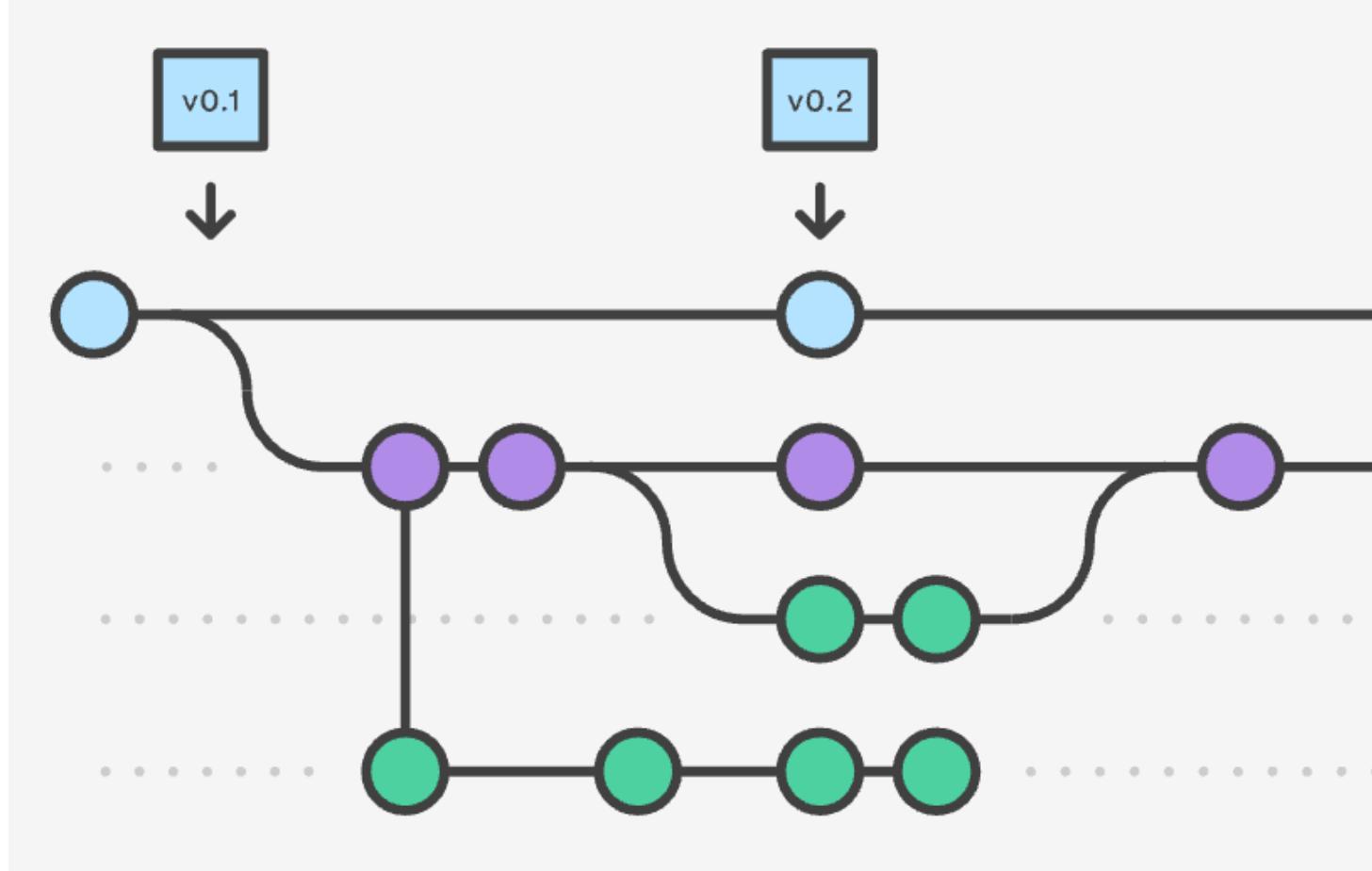
- Introducción
- Ramas
- Colaboración en Github
- Buenas prácticas
- GitFlow
- Github Actions
- Proyecto final Github

CONTROL DE VERSIONES



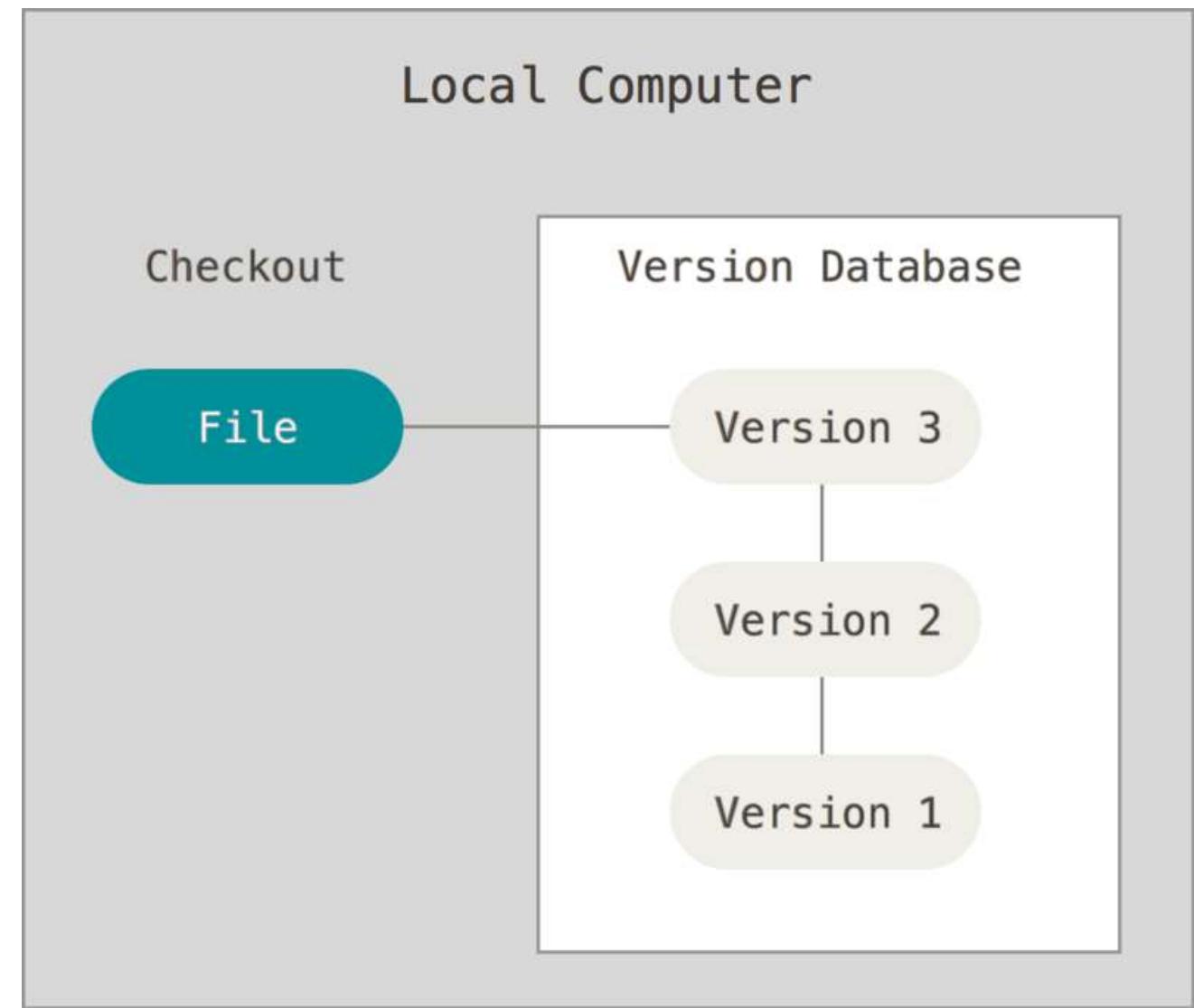
DE V O P S



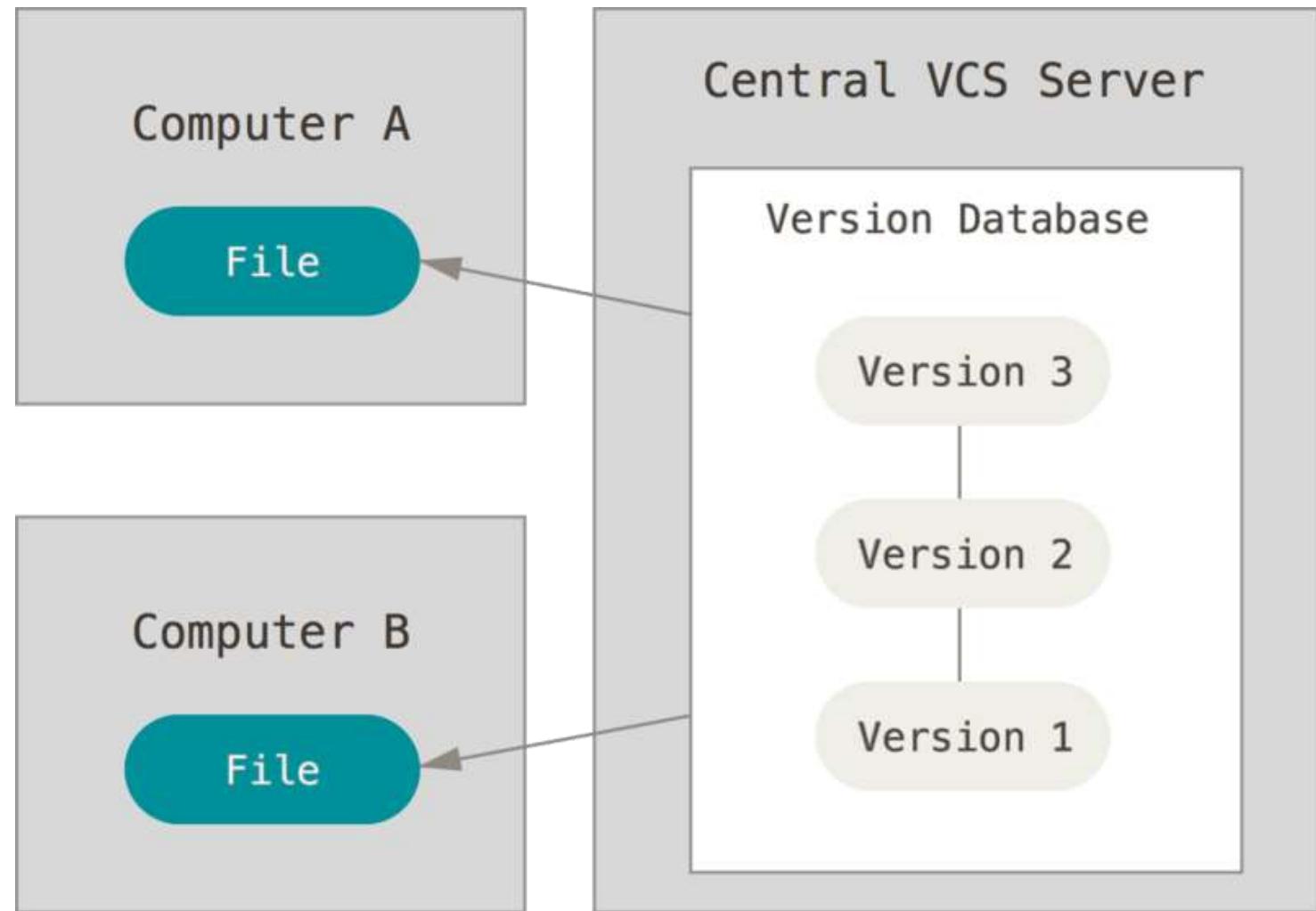


¿POR QUÉ USAR UN VCS?

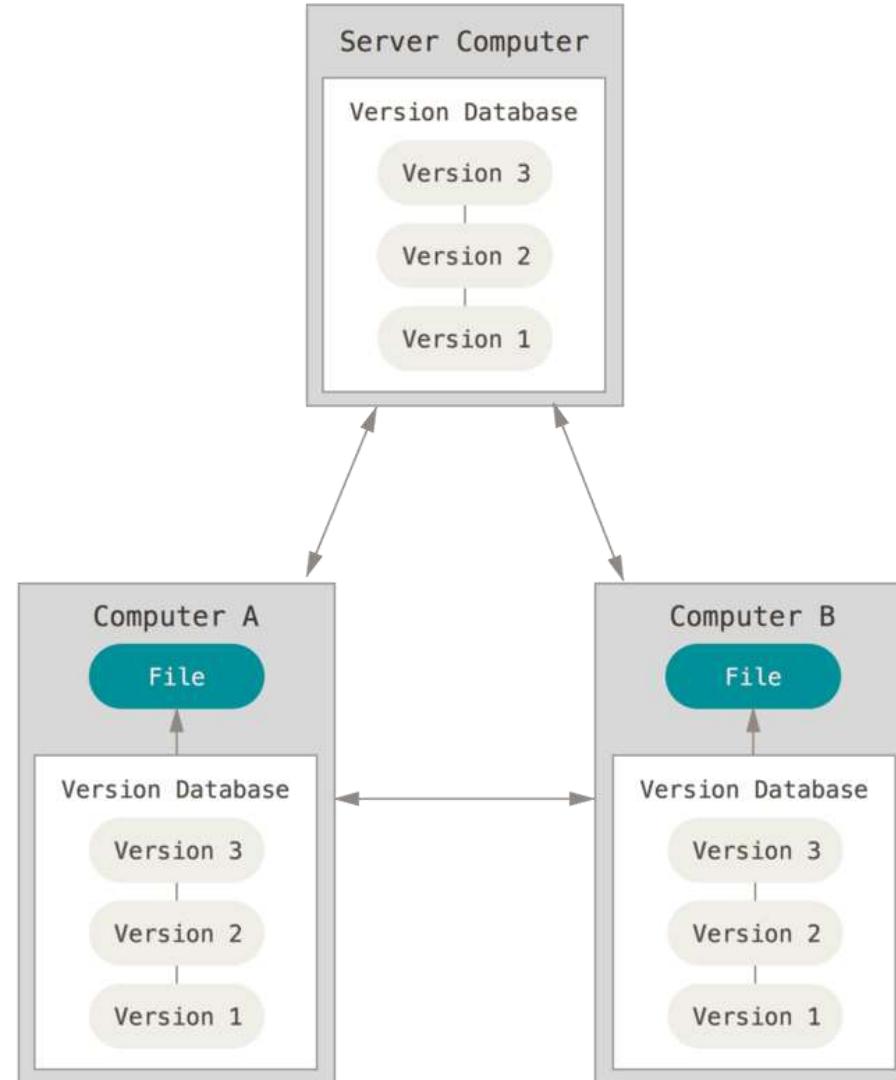
SISTEMAS DE CONTROL DE VERSIONES LOCALES



SISTEMAS DE CONTROL DE VERSIONES CENTRALIZA DOS



SISTEMAS DE CONTROL DE VERSIONES DISTRIBUIDOS



HISTORIA DE GIT

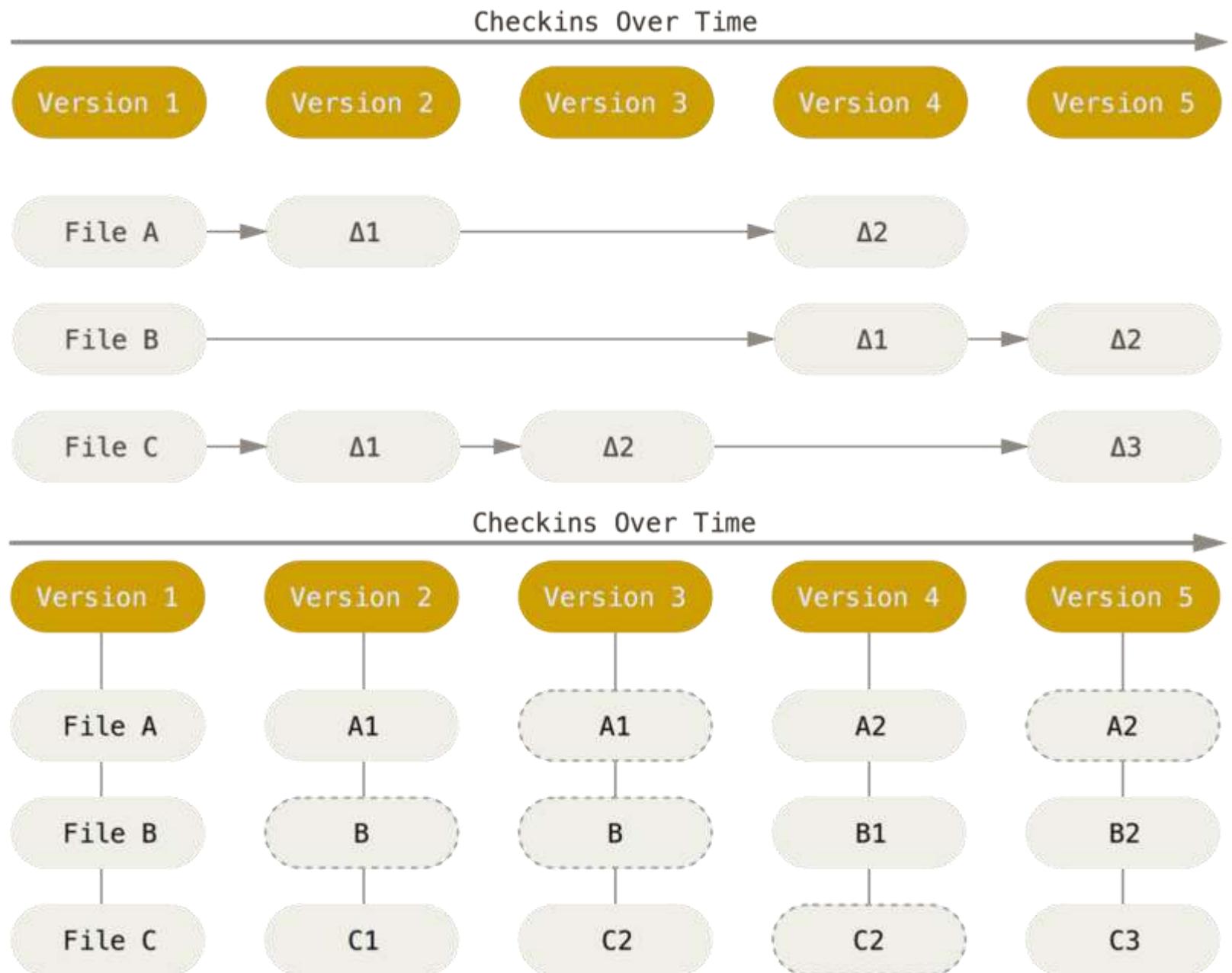


¿QUÉ ES
GIT?

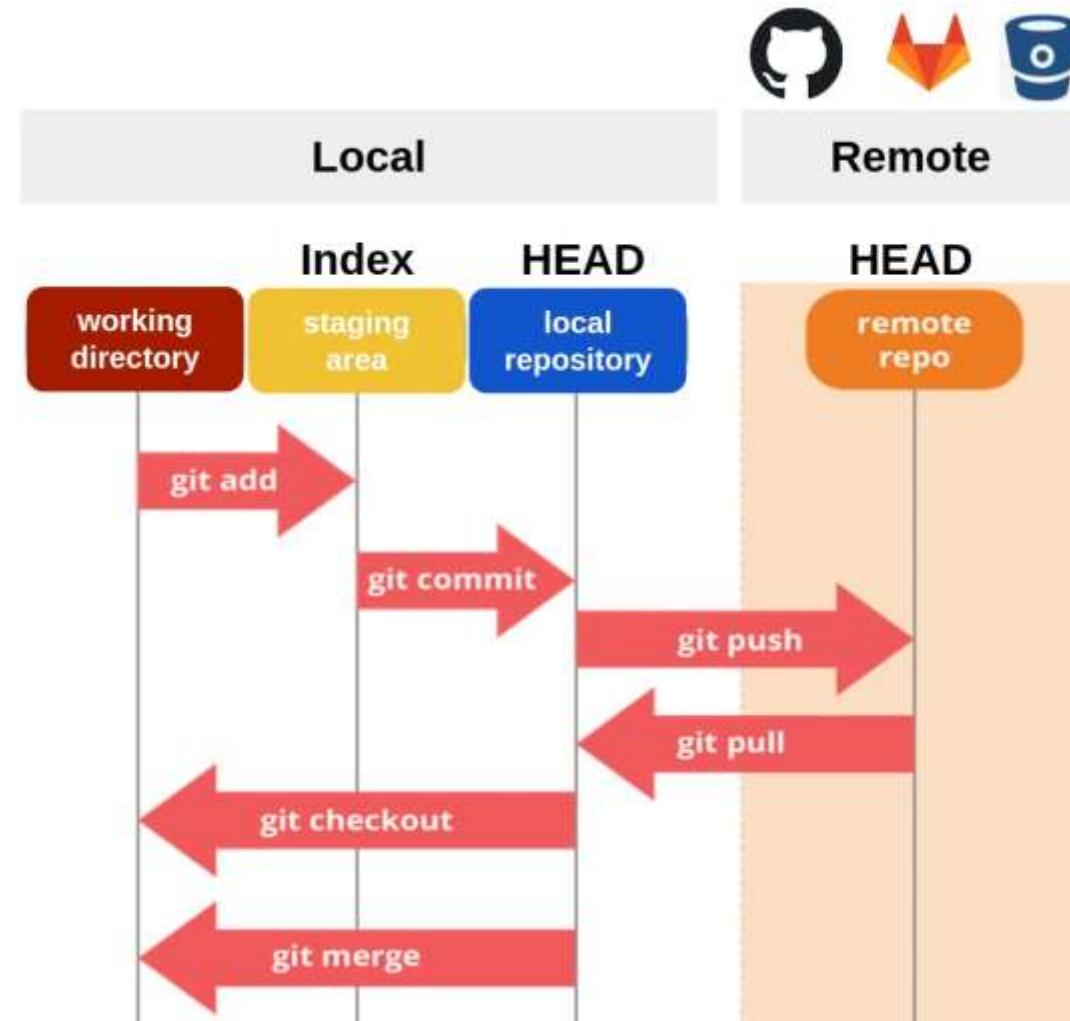


git

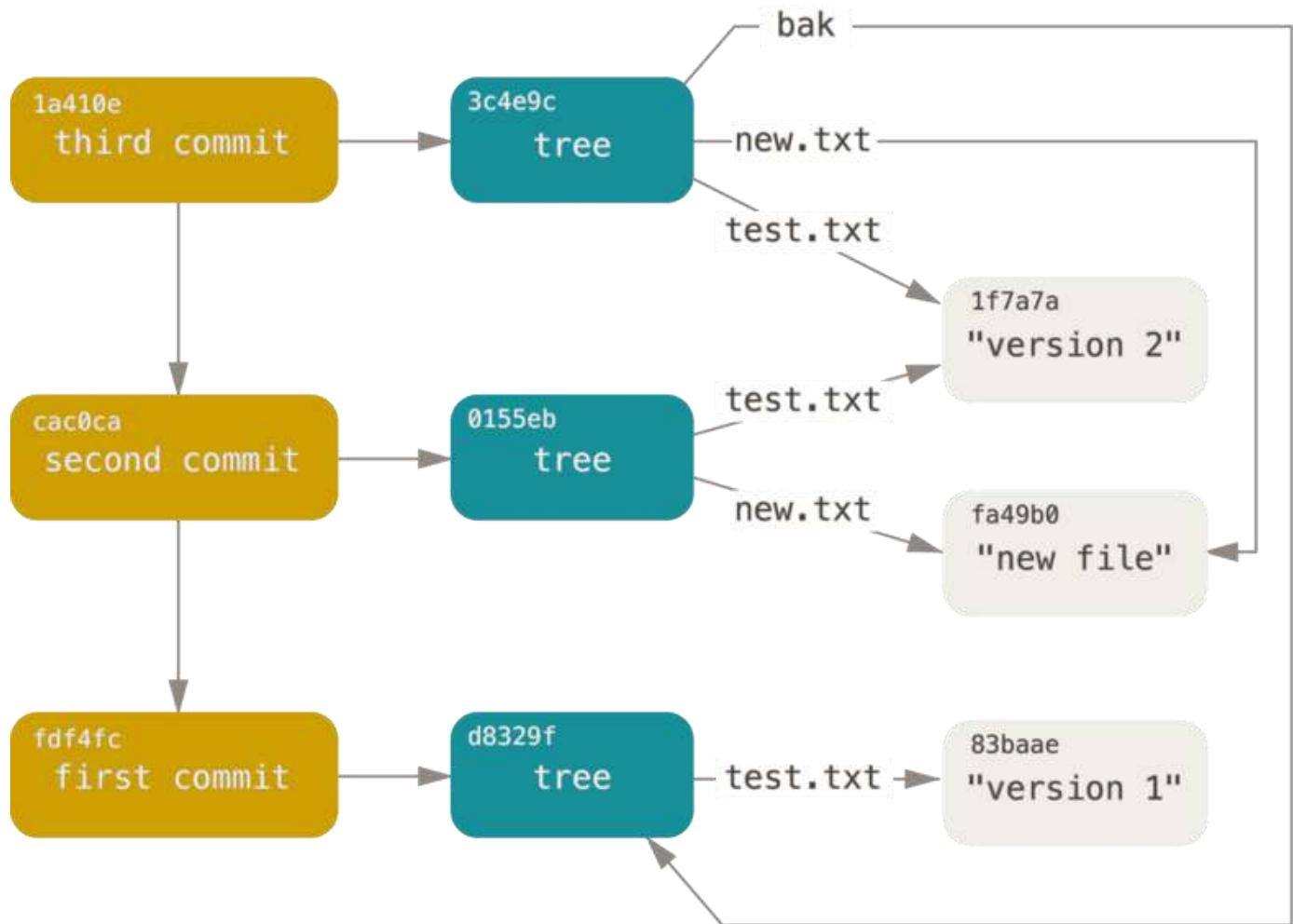
COPIAS INSTANTÁNEAS, NO DIFERENCIAS



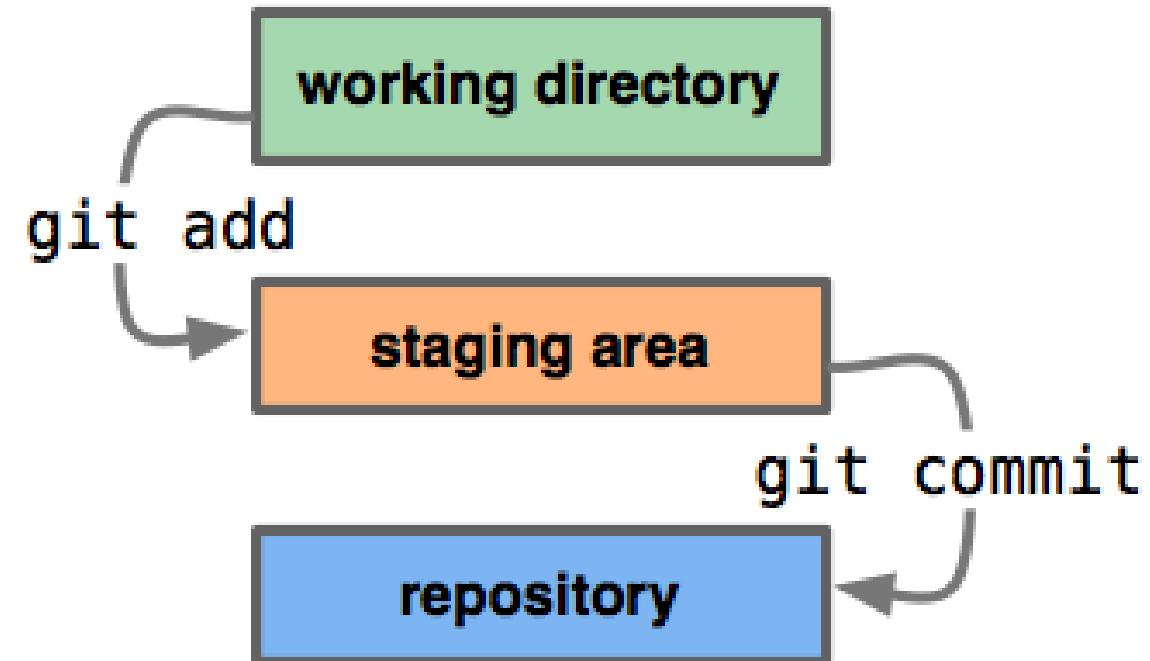
OPERACIONES LOCALES



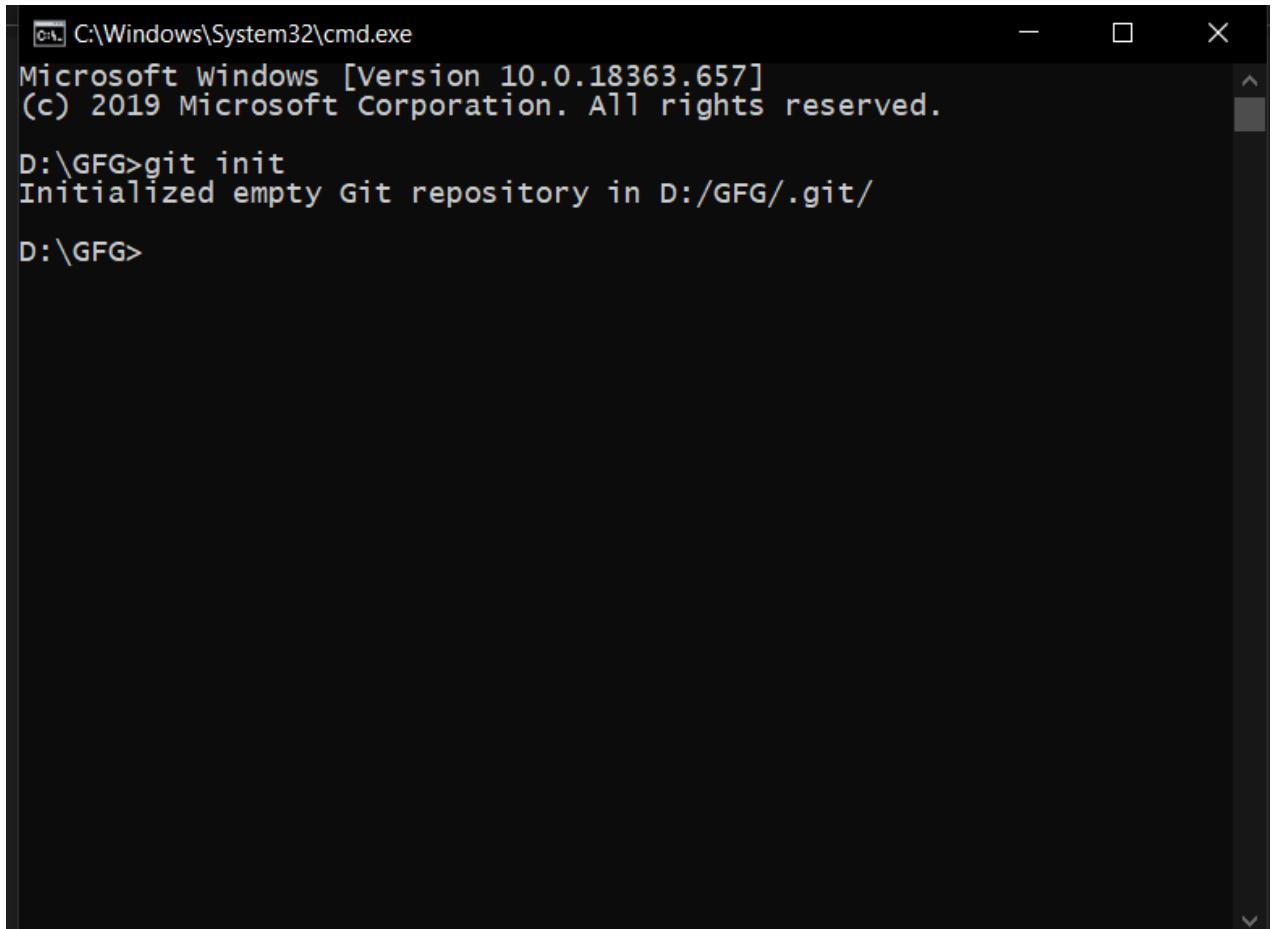
INTEGRIDAD



ESTADOS DE GIT

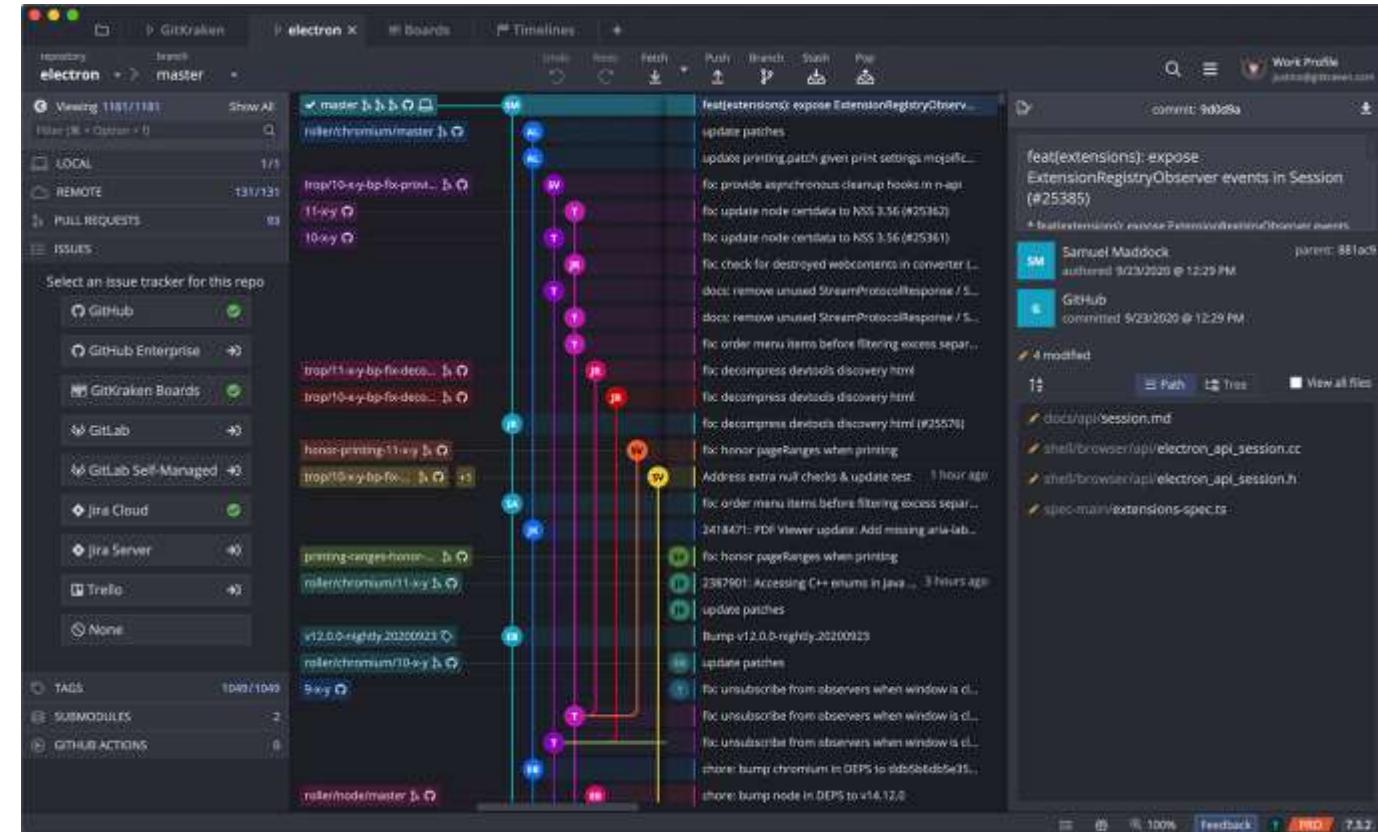


LINEA DE COMANDOS

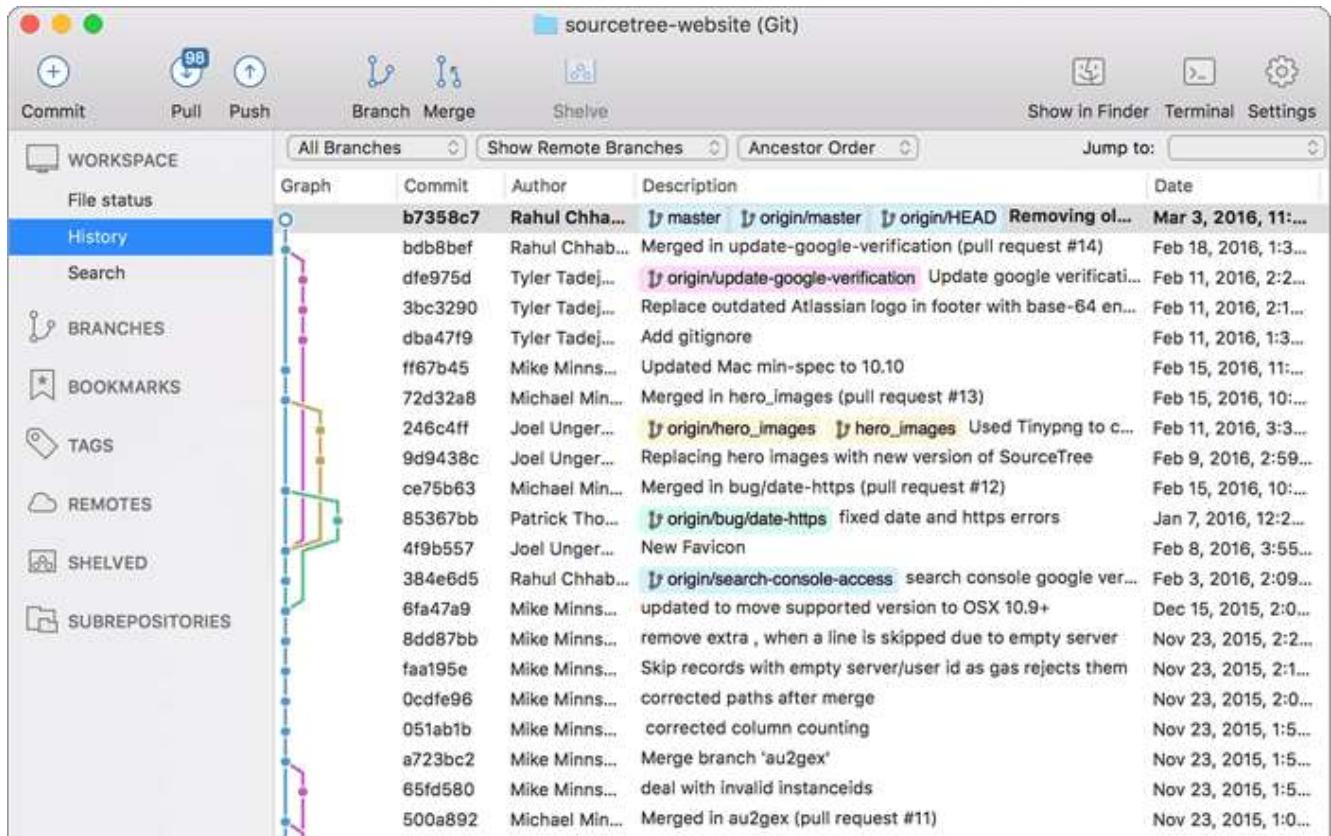


A screenshot of a Windows Command Prompt window titled "C:\Windows\System32\cmd.exe". The window shows the following text:
Microsoft Windows [Version 10.0.18363.657]
(c) 2019 Microsoft Corporation. All rights reserved.
D:\GFG>git init
Initialized empty Git repository in D:/GFG/.git/
D:\GFG>

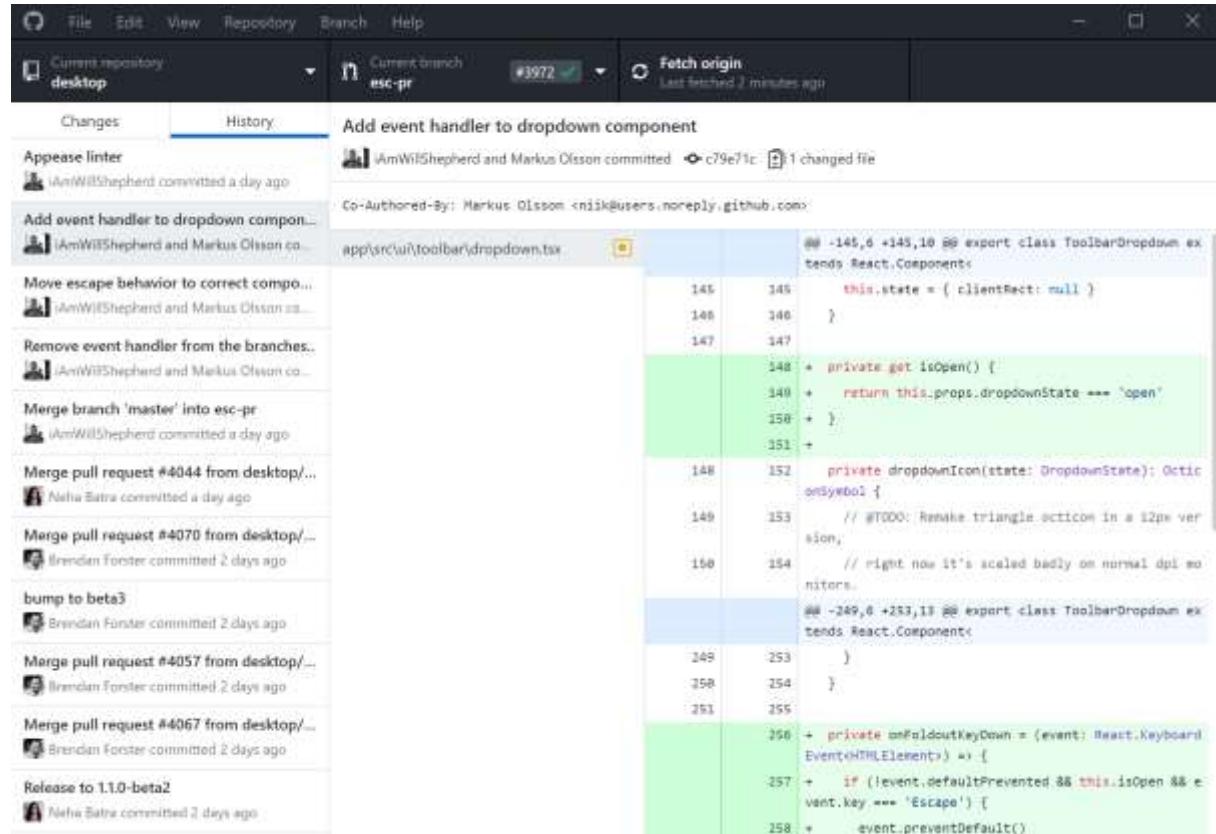
GITKRAKEN



SOURCETREE



GITHUB DESKTOP



The screenshot shows the GitHub Desktop application interface. At the top, there's a navigation bar with File, Edit, View, Repository, Branch, and Help. Below the navigation bar, the current repository is set to "desktop" and the current branch is "esc-pr". A pull request #3972 is selected, with the status "Last fetched 2 minutes ago". The "History" tab is active, showing a list of commits:

- Add event handler to dropdown component (AmWillshepherd and Markus Olsson committed a day ago)
- Add event handler to dropdown component (AmWillshepherd and Markus Olsson co...)
- Move escape behavior to correct compo... (AmWillshepherd and Markus Olsson co...)
- Remove event handler from the branches... (AmWillshepherd and Markus Olsson co...)
- Merge branch 'master' into esc-pr (AmWillshepherd committed a day ago)
- Merge pull request #4044 from desktop/... (Neha Batra committed a day ago)
- Merge pull request #4070 from desktop/... (Brendan Forster committed 2 days ago)
- bump to beta3 (Brendan Forster committed 2 days ago)
- Merge pull request #4057 from desktop/... (Brendan Forster committed 2 days ago)
- Merge pull request #4067 from desktop/... (Brendan Forster committed 2 days ago)
- Release to 1.1.0-beta2 (Neha Batra committed 2 days ago)

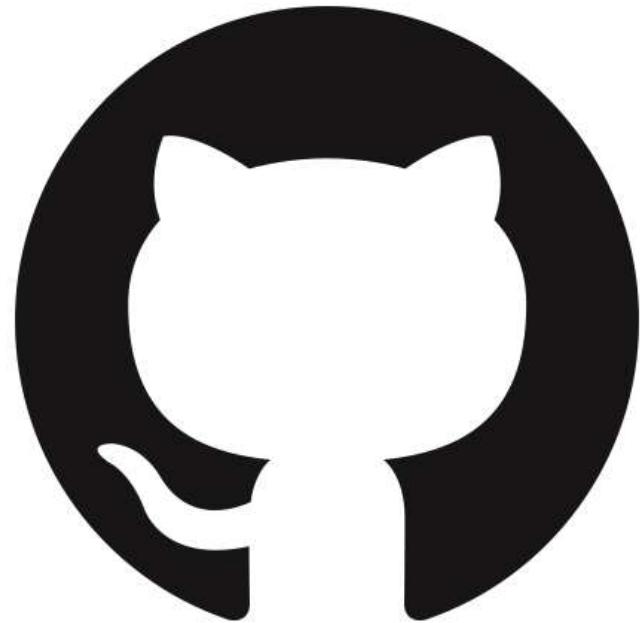
On the right side, a detailed view of the commit "Add event handler to dropdown component" is shown. The commit message is "Add event handler to dropdown component". It was co-authored by Markus Olsson <niiik@users.noreply.github.com>. The file path is app/src/ui/toolbar/dropdown.tsx. The code diff shows the addition of a private method to check if the dropdown is open and the export of the ToolbarDropdown class.

```
@@ -145,6 +145,10 @@ export class ToolbarDropdown extends React.Component<
```

```
    145      this.state = { clientRect: null }
```

```
    146    }
    147
    148 +   private get isOpen() {
    149 +     return this.props.dropdownState === 'open'
    150 +   }
    151 +
    152     private dropdownIcon(state: DropdownState): OcticonSymbol {
    153       // TODO: Remake triangle octicon in a 12px version,
    154       // right now it's scaled badly on normal dpi monitors.
    155
    156 +   private onEscKeyDown = (event: React.KeyboardEvent<HTMLInputElement>) => {
    157 +     if (!event.defaultPrevented && this.isOpen && event.key === 'Escape') {
    158 +       event.preventDefault()
```

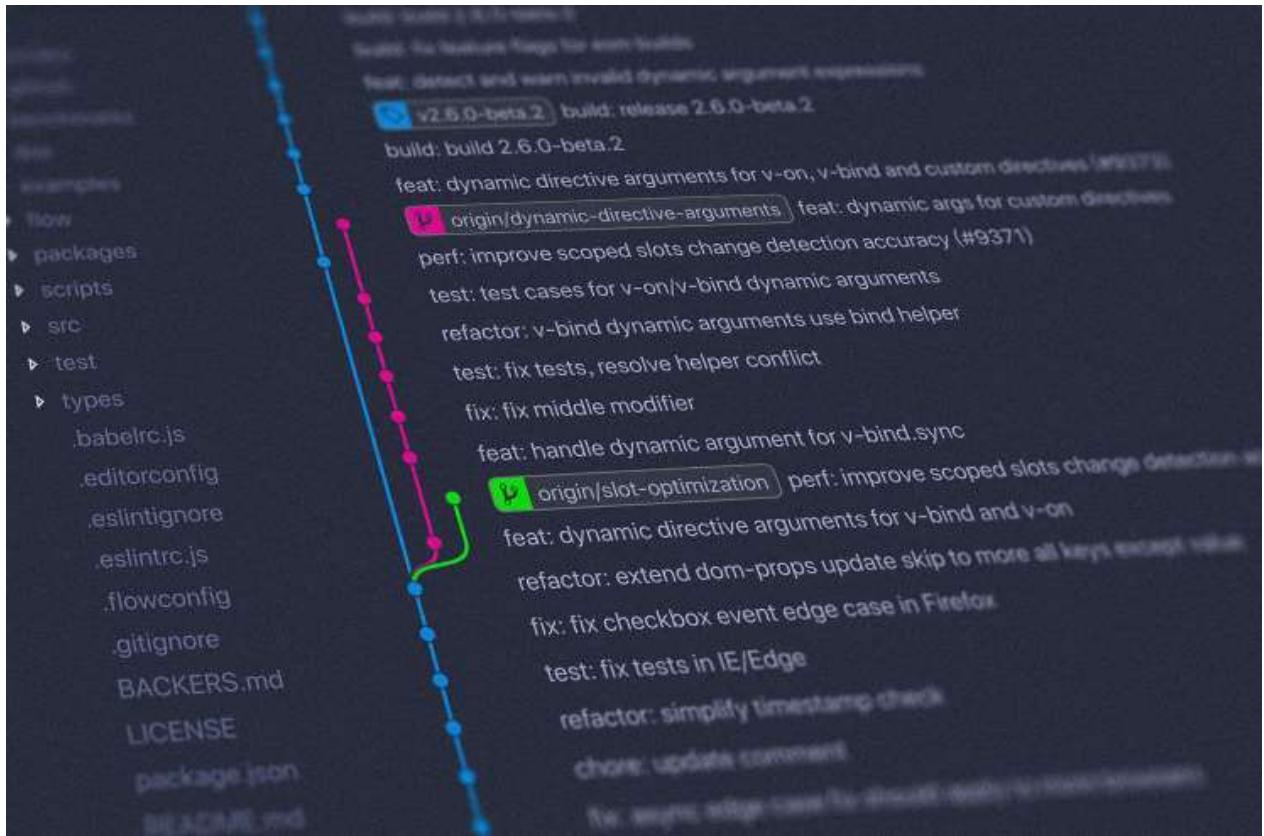
GITHUB



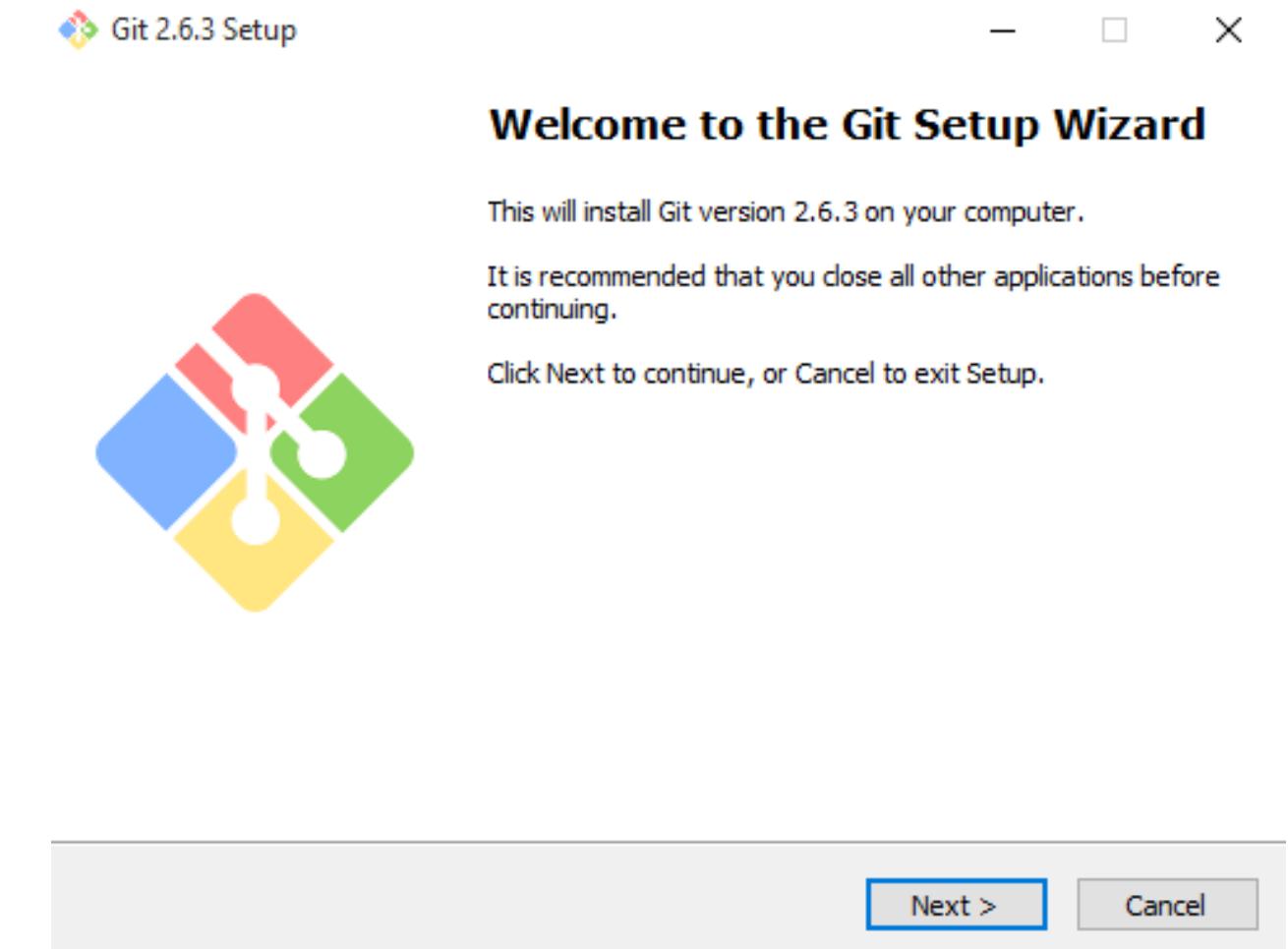
G I T V S G I T H U B

 git	 GitHub
1. It is a software	1. It is a service
2. It is installed locally on the system	2. It is hosted on Web
3. It is a command line tool	3. It provides a graphical interface
4. It is a tool to manage different versions of edits, made to files in a git repository	4. It is a space to upload a copy of the Git repository
5. It provides functionalities like Version Control System Source Code Management	5. It provides functionalities of Git like VCS, Source Code Management as well as adding few of its own features

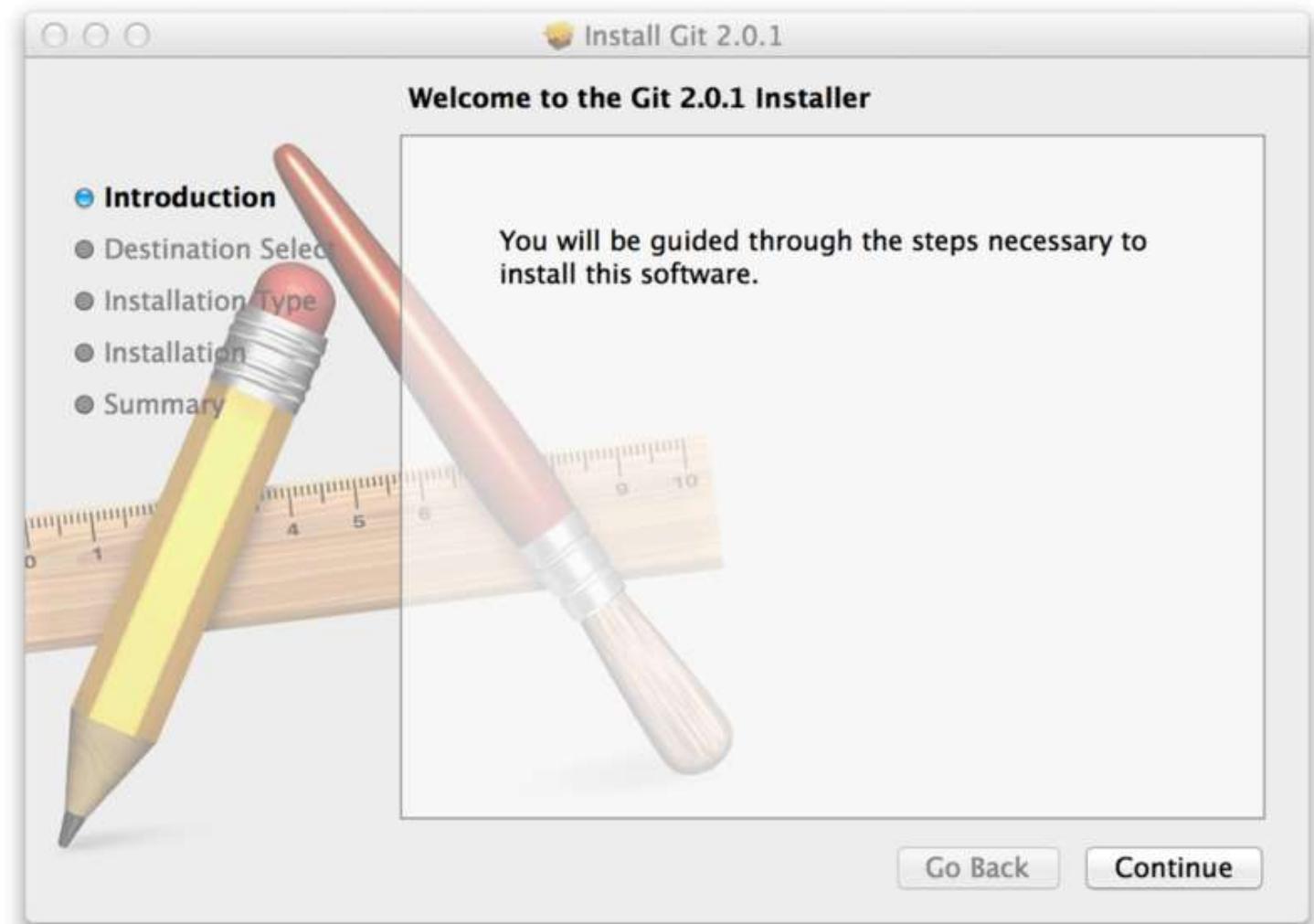
LABORATORIO 1



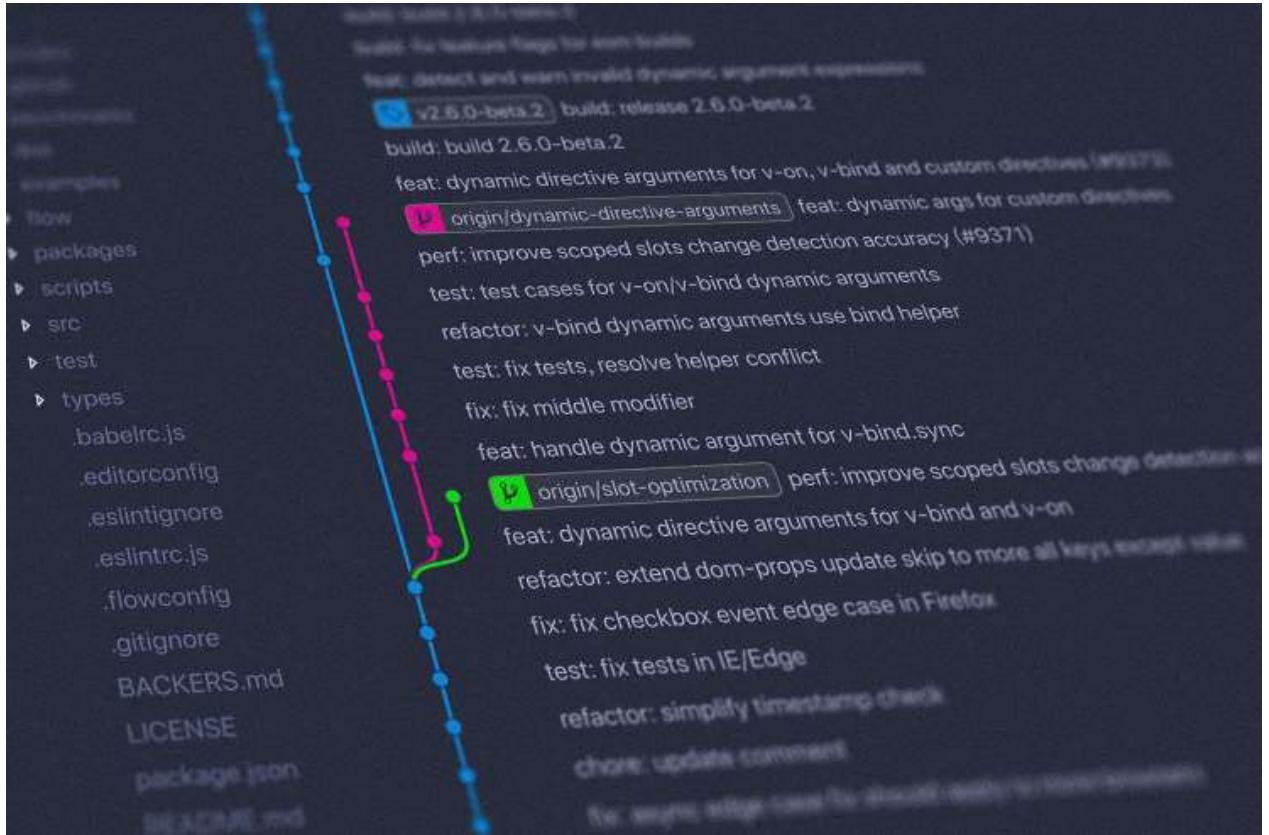
INSTALACIÓN DE GIT EN WINDOWS



INSTALACIÓN N DE GIT EN MAC



LABORATORIO 2

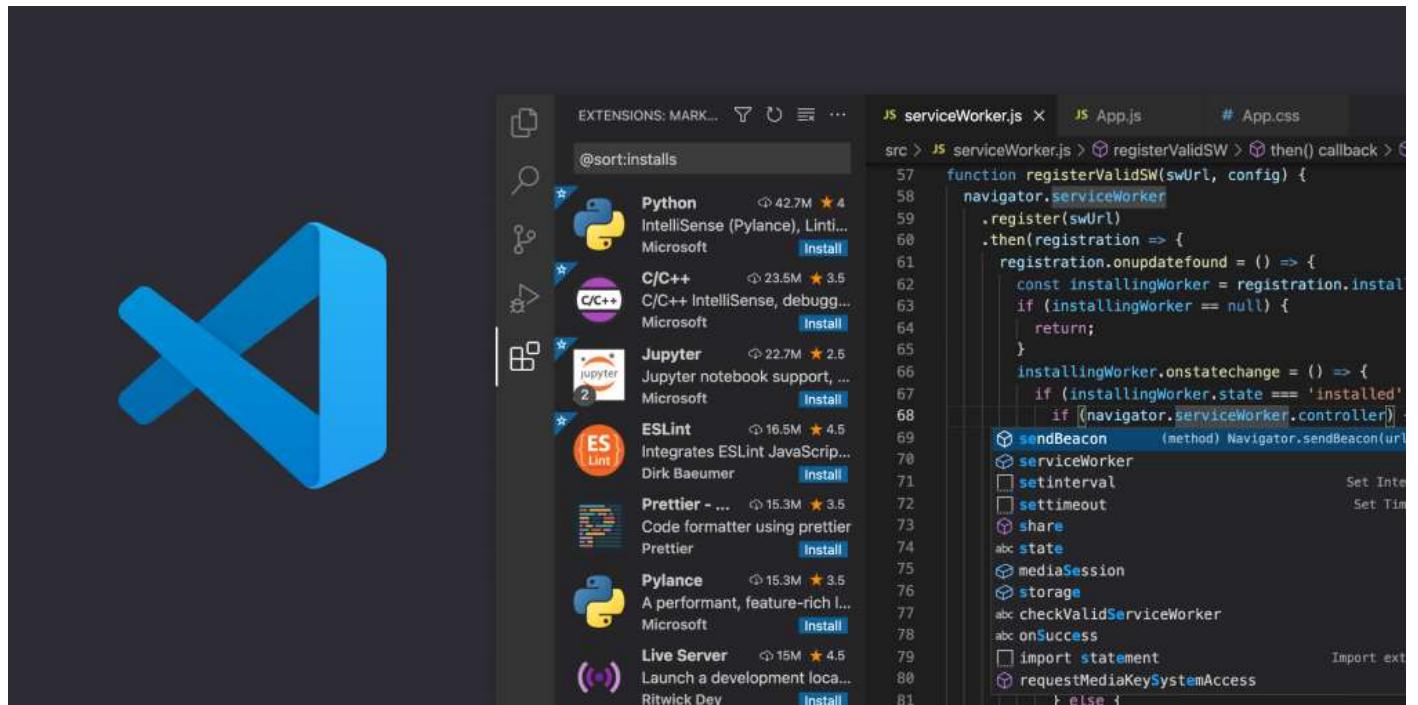


ATOM

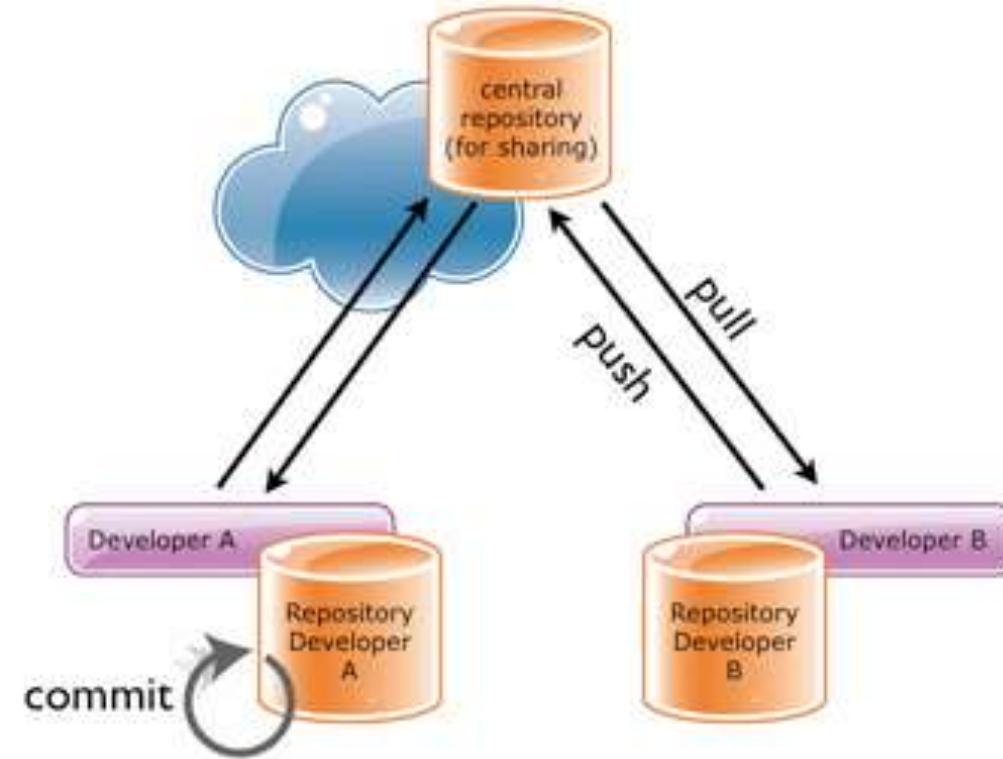
The screenshot shows a Jupyter Notebook environment. On the left, there's a sidebar with a tree view of files and a 'Control' button. The main area has tabs for 'README.md', 'setup.py', and 'MANIFEST.in'. A large code cell contains Python code for dataset management, including functions like `deflistdatasets`, `checkdataset`, and `updateMANIFEST`. The right side features a vertical sidebar with a file navigation pane containing items such as 'for root', 'for get_paste', 'for references', etc.

```
177     add(['--check-all'], action='store_true',
178         help='See if there is any remote dataset not in sync with locals.')
179     add(['-v', '--verbose'], action='store_true', help='Print more details.')
180
181     return parser
182
183
184     deflistdatasets(url):
185         """ Print a list of local and remote datasets """
186
187         tdir = os.environ['SCIPION_TESTS']
188         print("Local datasets in %s yellowfoldr")
189         for folder in sorted(os.listdir(tdir)):
190             if folder.startswith('MANIFEST'):
191                 if os.path.isdir(folder):
192                     print("  %s" % folder)
193                 else:
194                     print("  %s (not in dataset format) %s" % folder)
195
196         try:
197             print("Remote datasets in %s yellowfoldr")
198             for line in sorted(open('%s/MANIFEST' % url)):
199                 print("  %s" % line.rstrip())
200         except Exception as e:
201             print("Error reading %s (%s)" % (url, e))
202
203
204     def checkdataset(url, verbose=False, updateMANIFEST=False):
205         """ See if our local copy of dataset is the same as the remote one.
206         Return True if it is (if all the checksums are equal), False if not.
207         """
208
209         def vlog(txt): sys.stdout.write(txt) if verbose else None # verbose log
210
211         vlog('Checking dataset %s ... %s-dataset')
212
213         if updateMANIFEST:
214             createMANIFEST(url, os.environ['SCIPION_TESTS'], dataset)
215         else:
216             vlog('Not updating Local MANIFEST ...')
217
218         try:
219             ad59Remote = dict(x.split() for x in
220                             open("%s/MANIFEST" % url, dataset))
221
222             ad59Local = dict(x.split() for x in
223                             open("%s/MANIFEST" % tdir, dataset))
224
225             for k in ad59Remote:
226                 if ad59Local.get(k) != ad59Remote[k]:
227                     vlog("Dataset %s is different" % k)
228
229             if len(ad59Local) > len(ad59Remote):
230                 vlog("Dataset %s is missing" % k)
231
232             if len(ad59Remote) > len(ad59Local):
233                 vlog("Dataset %s is extra" % k)
234
235         except Exception as e:
236             vlog("Error reading %s (%s)" % (url, e))
```

V S C O D E



REPOSITORIO DE GIT



INICIALIZAR REPOSITORIO

```
> git init
```

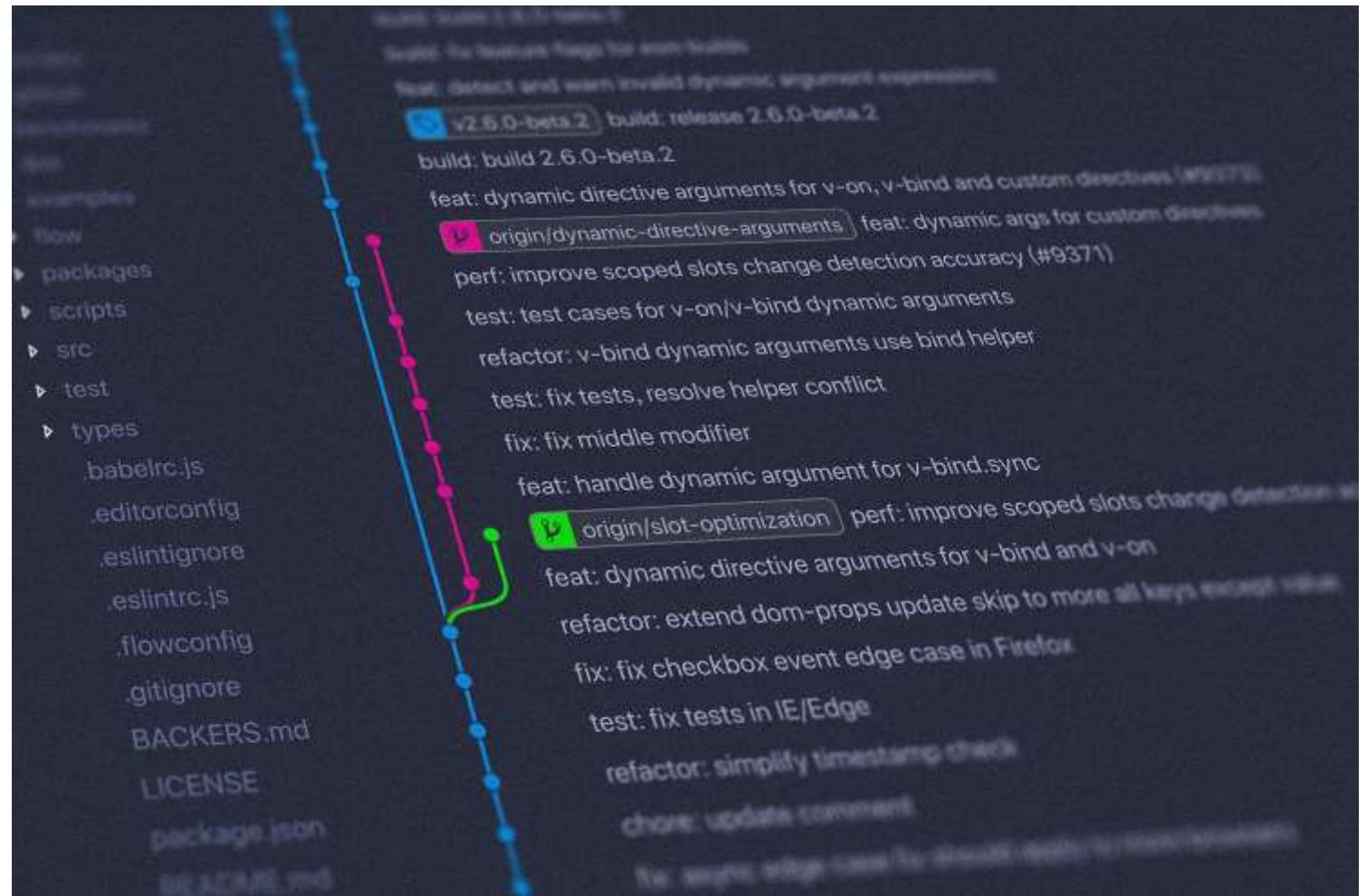
CLONACIÓN

```
HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop (master)
$ cd "new folder"

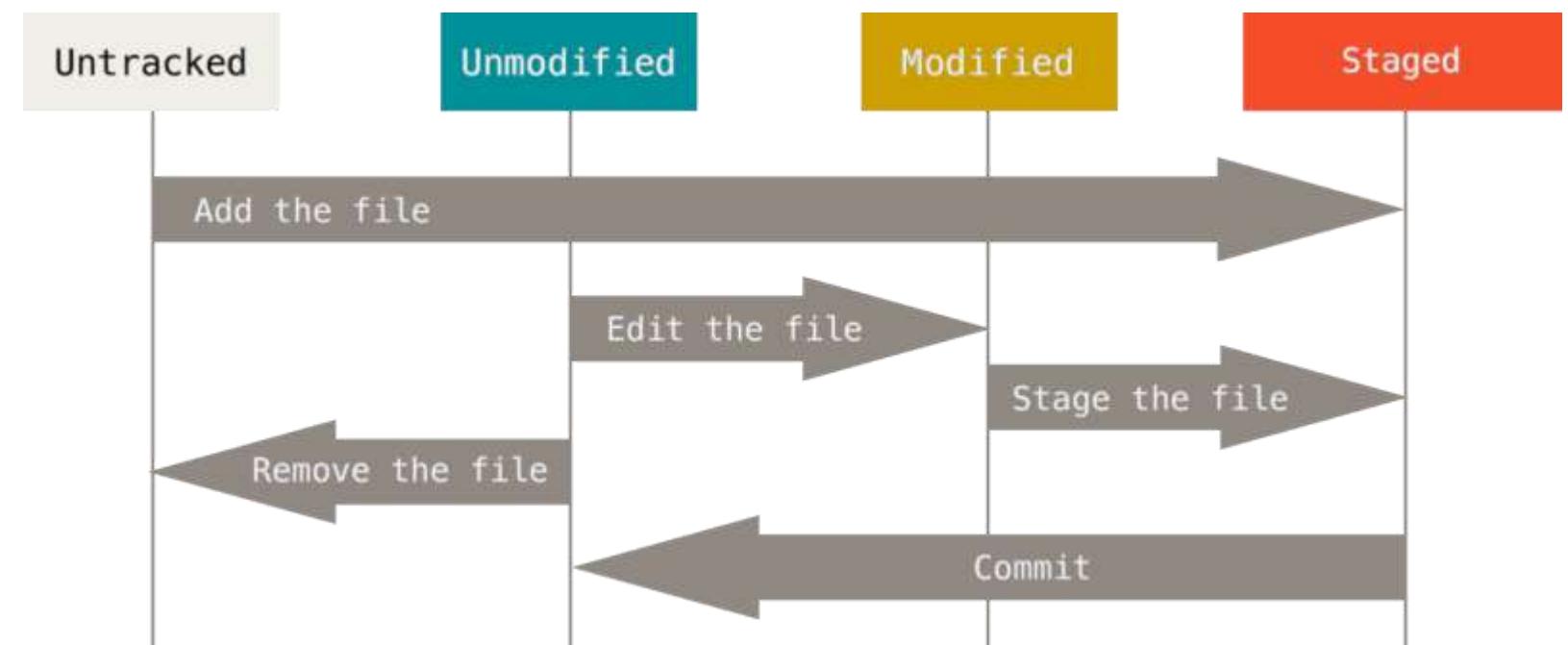
HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/new folder (master)
$ git clone https://github.com/IMDwivedi1/Git-Example.git
Cloning into 'Git-Example'...
remote: Enumerating objects: 6, done.
remote: Counting objects: 100% (6/6), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (6/6), done.

HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/new folder (master)
$
```

LABORATORIO 3



GUARDANDO CAMBIOS EN EL REPOSITORIO



G I T S T A T U S

```
HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ touch demofile

HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ git status
on branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)
    demofile

nothing added to commit but untracked files present (use "git add" to track)
```

G I T A D D

```
HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ touch newfile.txt

HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ git status
on branch master

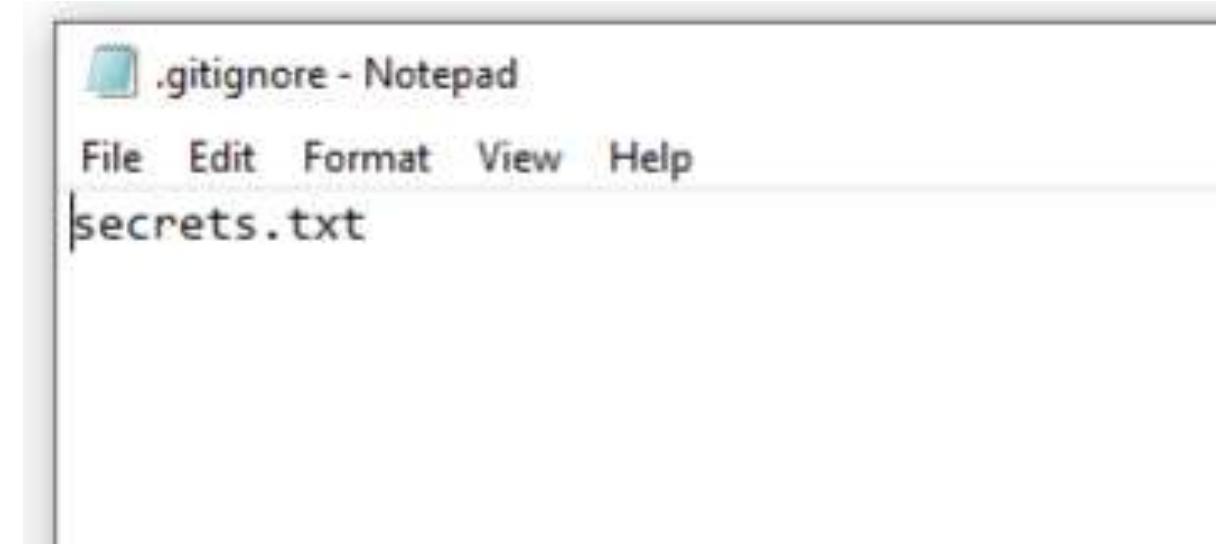
No commits yet

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

nothing added to commit but untracked files present (use "git add" to

HiMaNshU@HiMaNshU-PC MINGW64 ~/Desktop/NewDirectory (master)
$ git add newfile.txt
```

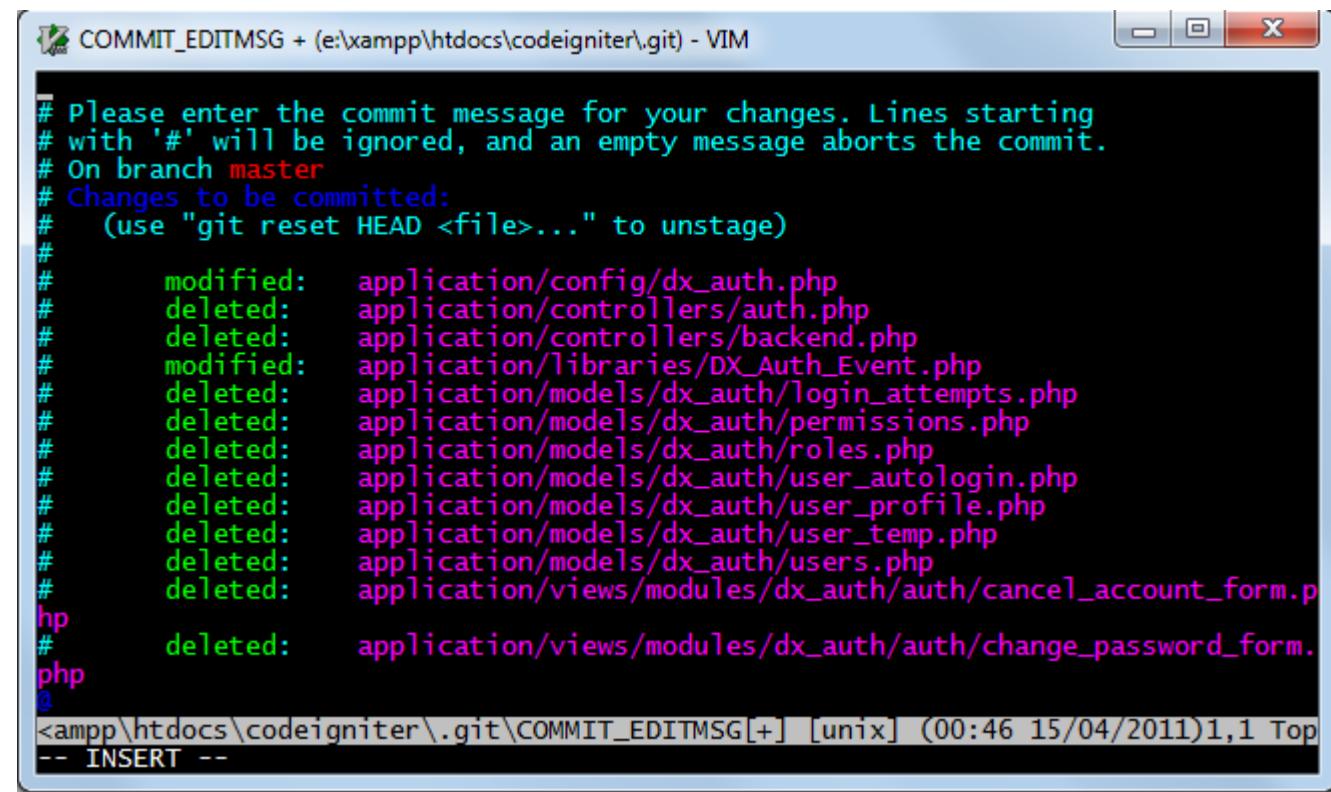
G I T I G N O R E



G I T D I F F

```
MINGW64:/e/Gitdiffnew
Lenovo@DESKTOP-LU5US00 MINGW64 /e/Gitdiffnew (master)
$ git diff 6eeda c87e1ed hello.txt
diff --git a/hello.txt b/hello.txt
index 01bafad..79cf701 100644
--- a/hello.txt
+++ b/hello.txt
@@ -1 +1,2 @@
-git is a powerful tool for vcs
+git is a powerful tool for vcs .
+Github is a pwerful tool for cvs .
```

G I T C O M M I T



The screenshot shows a VIM editor window titled "COMMIT_EDITMSG + (e:\xampp\htdocs\codeigniter\.git) - VIM". The window displays a commit message template with the following content:

```
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# On branch master
# Changes to be committed:
#   (use "git reset HEAD <file>..." to unstage)
#
#       modified:   application/config/dx_auth.php
#       deleted:    application/controllers/auth.php
#       deleted:    application/controllers/backend.php
#       modified:   application/libraries/DX_Auth_Event.php
#       deleted:    application/models/dx_auth/login_attempts.php
#       deleted:    application/models/dx_auth/permissions.php
#       deleted:    application/models/dx_auth/roles.php
#       deleted:    application/models/dx_auth/user_autologin.php
#       deleted:    application/models/dx_auth/user_profile.php
#       deleted:    application/models/dx_auth/user_temp.php
#       deleted:    application/models/dx_auth/users.php
#       deleted:    application/views/modules/dx_auth/auth/cancel_account_form.p
hp
#       deleted:    application/views/modules/dx_auth/auth/change_password_form.
php
@
```

At the bottom of the window, the status bar shows the path "`e:\xampp\htdocs\codeigniter\.git\COMMIT_EDITMSG[+]`", the terminal type "[unix]", the time "(00:46 15/04/2011)", the line number "1,1", and the word "Top". It also displays the command "-- INSERT --".

O P C I O N E S

Confirma la instantánea preparada

```
git commit
```

Confirma una instantánea de todos los cambios del directorio de trabajo.

```
git commit -a
```

Si se usa la opción **-m**, se omitirá la solicitud de editor de texto a favor de un mensaje insertado.

```
git commit -m "commit message"
```

Esta combinación crea inmediatamente una confirmación de todos los cambios preparados y aplica un mensaje de confirmación insertado.

```
git commit -am "commit message"
```

Al pasar esta opción, se modificará la última confirmación. En vez de crear una nueva confirmación, los cambios preparados se añadirán a la confirmación anterior

```
git commit --amend
```

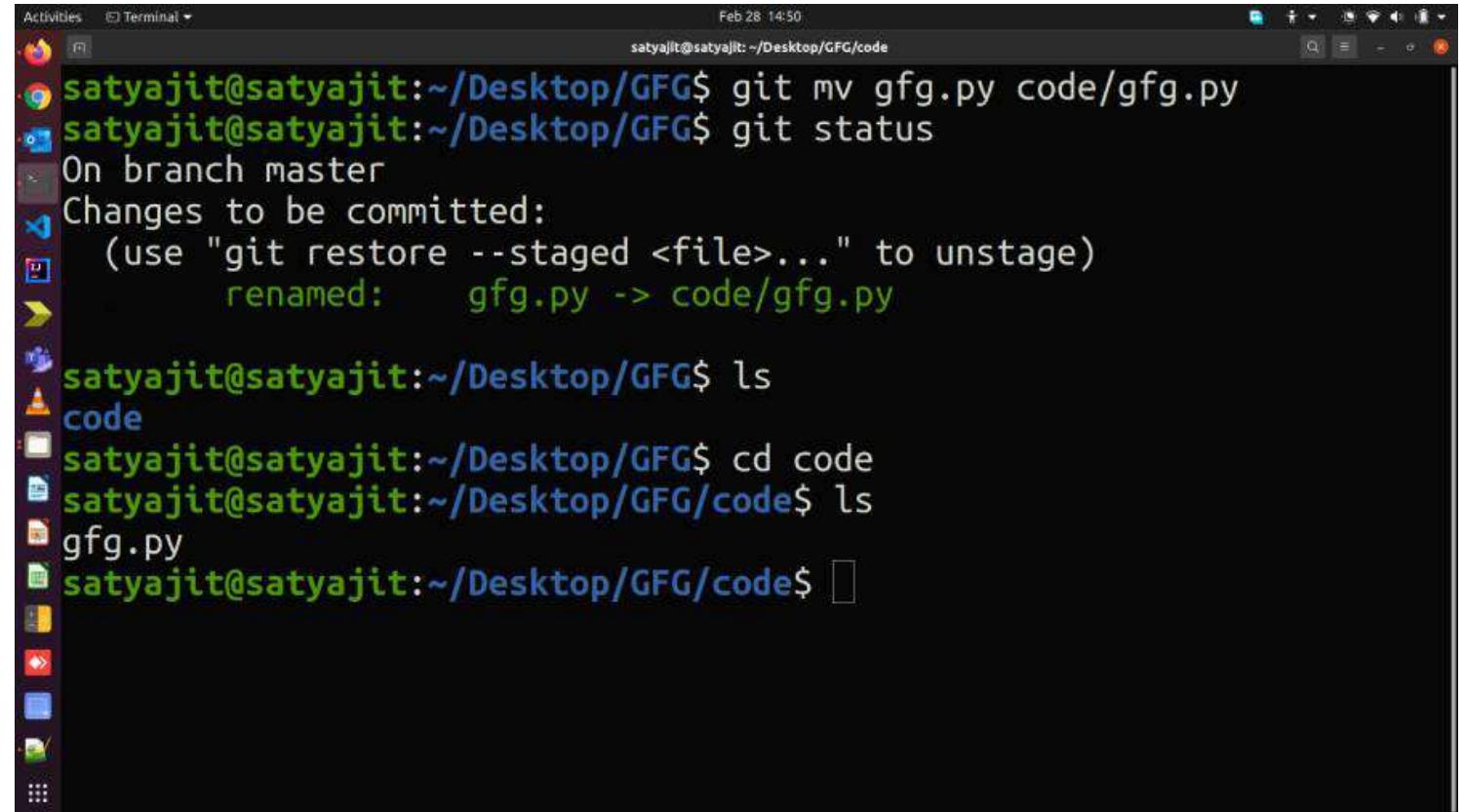
G I T R M

```
HIMANSHU@HIMANSHU-PC MINGW64 ~/Desktop/GitExample2 (master)
$ git rm --cached newfile1.txt
rm 'newfile1.txt'

HIMANSHU@HIMANSHU-PC MINGW64 ~/Desktop/GitExample2 (master)
$ git status
on branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    deleted:    newfile1.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    newfile1.txt
```

G I T R M

A screenshot of an Ubuntu desktop environment. In the top left, there's a dock with icons for Dash, Home, Activities, and Terminal. The terminal window is open and shows the following command-line session:

```
Activities Terminal ▾
Feb 28 14:50
satyajit@satyajit:~/Desktop/GFG$ git mv gfg.py code/gfg.py
satyajit@satyajit:~/Desktop/GFG$ git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    renamed:   gfg.py -> code/gfg.py

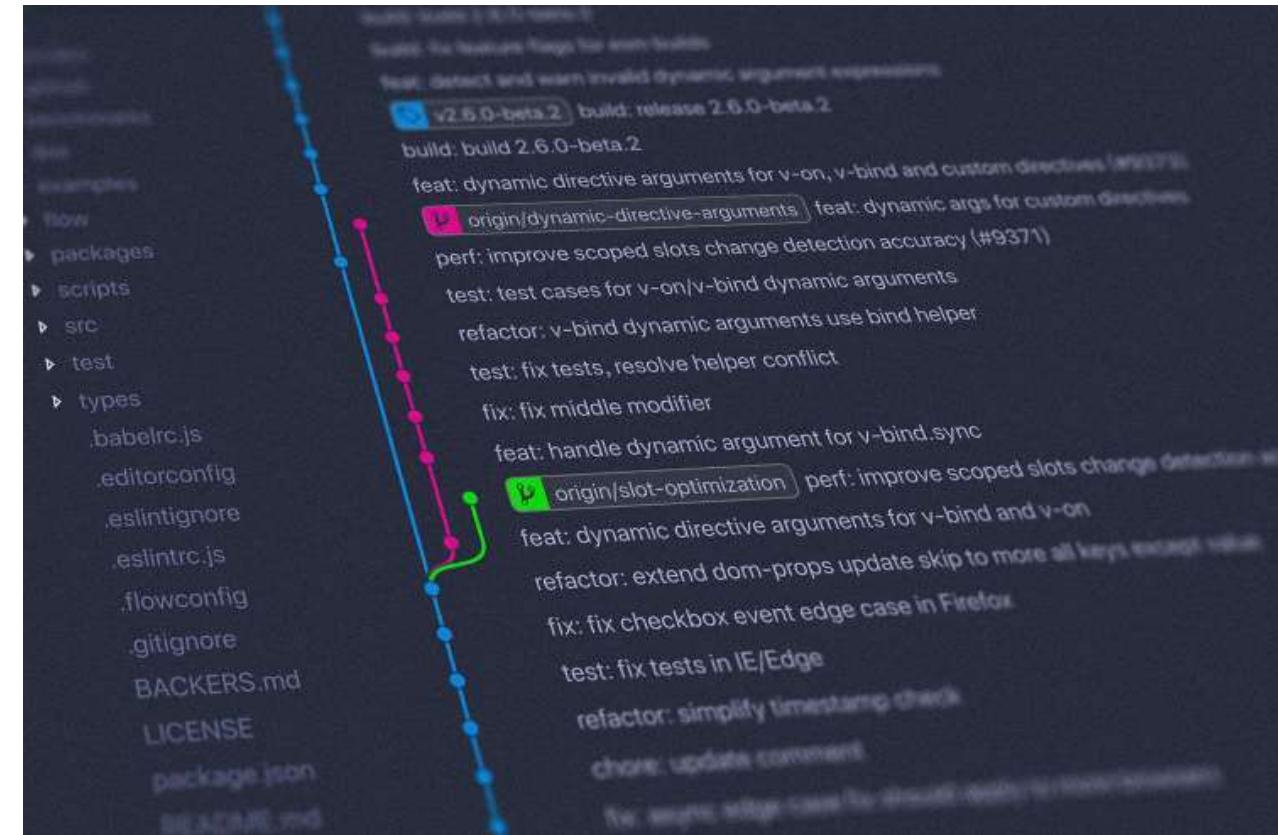
satyajit@satyajit:~/Desktop/GFG$ ls
code
satyajit@satyajit:~/Desktop/GFG$ cd code
satyajit@satyajit:~/Desktop/GFG/code$ ls
gfg.py
satyajit@satyajit:~/Desktop/GFG/code$
```

The terminal window has a dark background with light-colored text. The title bar says "Terminal". The status bar at the bottom right shows the date and time as "Feb 28 14:50".

satyajit@satyajit:~/Desktop/GFG\$ git mv gfg.py code/gfg.py
satyajit@satyajit:~/Desktop/GFG\$ git status
On branch master
Changes to be committed:
(use "git restore --staged <file>..." to unstage)
renamed: gfg.py -> code/gfg.py

satyajit@satyajit:~/Desktop/GFG\$ ls
code
satyajit@satyajit:~/Desktop/GFG\$ cd code
satyajit@satyajit:~/Desktop/GFG/code\$ ls
gfg.py
satyajit@satyajit:~/Desktop/GFG/code\$

LABORATORIO 4



G I T L O G

```
$ git log --format=medium
commit 5bf53efc38e1d780b32daf7c1d9acb54a7e93936
Author: Will Anderson <will@itsananderson.com>
Date:   Mon Jul 21 08:27:50 2014 -0700

    Normalize indents to 4 spaces for all source files

commit bb82a7ab75f14cce5d8f8a60e97bfa8a2ceabbe
Author: Will Anderson <will@itsananderson.com>
Date:   Mon Jul 21 01:11:38 2014 -0700

    Bump version to 0.2.4

commit d9bb2ff54751797208c0e551004cab1c1adb01cc
Author: Will Anderson <will@itsananderson.com>
Date:   Mon Jul 21 01:11:18 2014 -0700

    Update .npmignore with new dev files

commit c75067e0f76c0e0adad58bb1ac663834f572f696
Author: Will Anderson <will@itsananderson.com>
Date:   Sun Jul 20 23:00:44 2014 -0700

    Add full coverage for application mixin

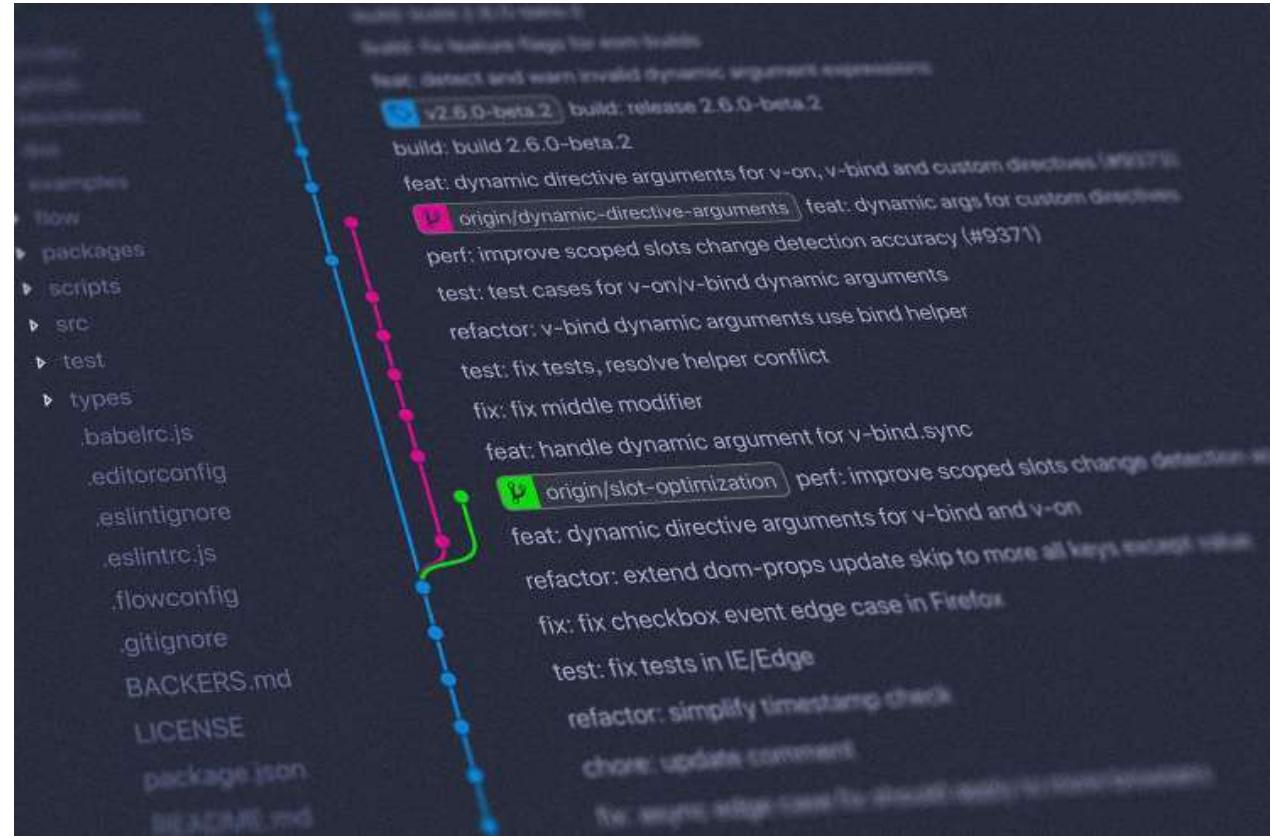
commit 98ee9cbbb4454912d352b8bdb6a3dcbcd64a38f9
Author: Will Anderson <will@itsananderson.com>
Date:   Sun Jul 20 14:34:18 2014 -0700

    Add full coverage for routeParams utility
```

OPCIONES

Opción	Descripción de la salida
<code>%H</code>	Hash de la confirmación
<code>%h</code>	Hash de la confirmación abreviado
<code>%T</code>	Hash del árbol
<code>%t</code>	Hash del árbol abreviado
<code>%P</code>	Hashes de las confirmaciones padre
<code>%p</code>	Hashes de las confirmaciones padre abreviados
<code>%an</code>	Nombre del autor
<code>%ae</code>	Dirección de correo del autor
<code>%ad</code>	Fecha de autoría (el formato respeta la opción - <code>date</code>)
<code>%ar</code>	Fecha de autoría, relativa
<code>%cn</code>	Nombre del confirmador
<code>%ce</code>	Dirección de correo del confirmador
<code>%cd</code>	Fecha de confirmación
<code>%cr</code>	Fecha de confirmación, relativa
<code>%s</code>	Asunto

LABORATORIO 5



G I T R E S E T

```
PC@PC-PC MINGW64 ~/Desktop/ghj/decodingdevops (master)
$ git status
On branch master
Your branch is based on 'origin/master', but the upstream is gone.
  (use "git branch --unset-upstream" to fixup)

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

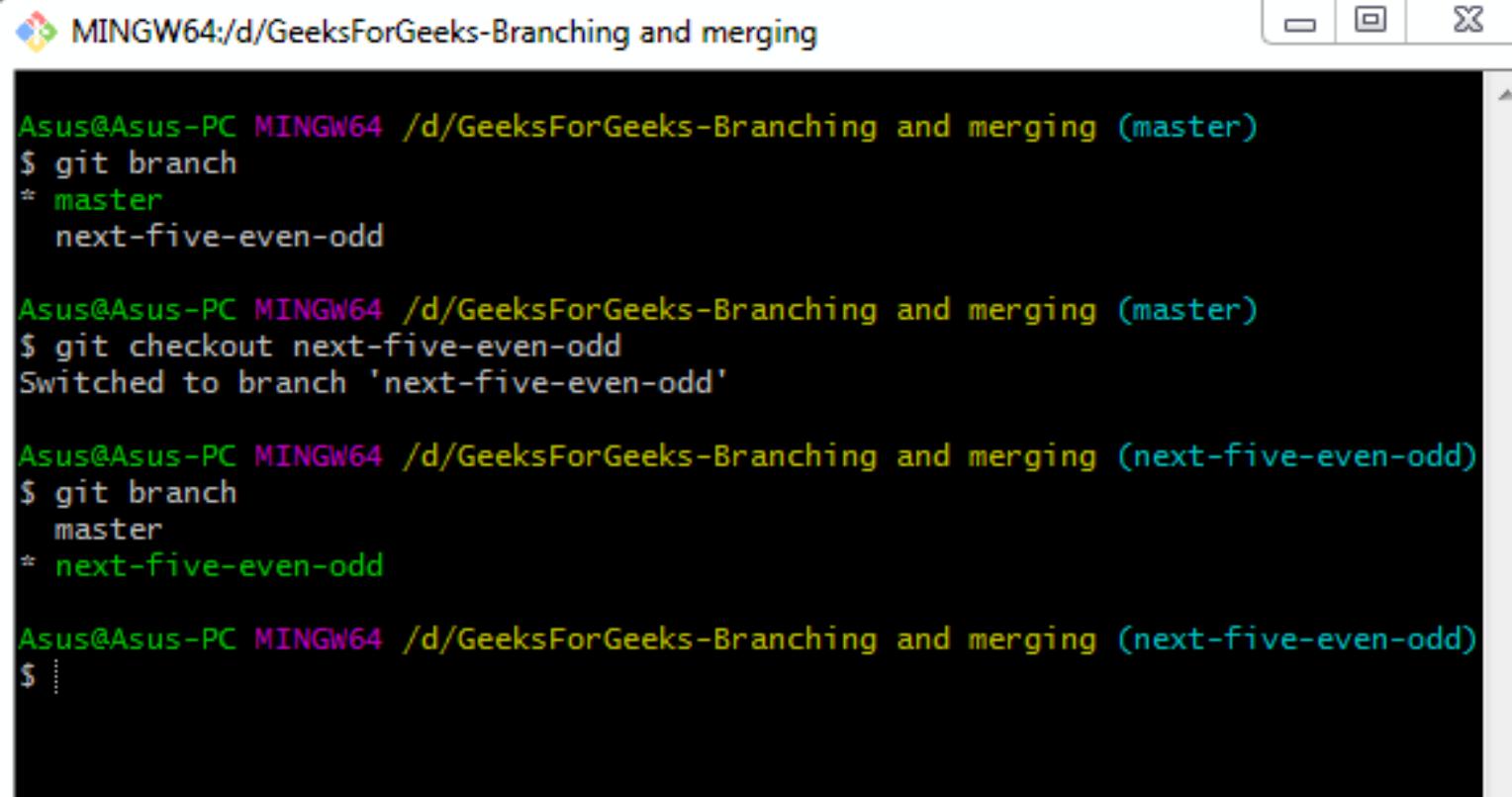
    new file:   abc.txt

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

    decoding.txt

PC@PC-PC MINGW64 ~/Desktop/ghj/decodingdevops (master)
$
```

G I T C H E C K O U T



A screenshot of a terminal window titled "MINGW64:/d/GeeksForGeeks-Branching and merging". The window shows a series of git commands being run:

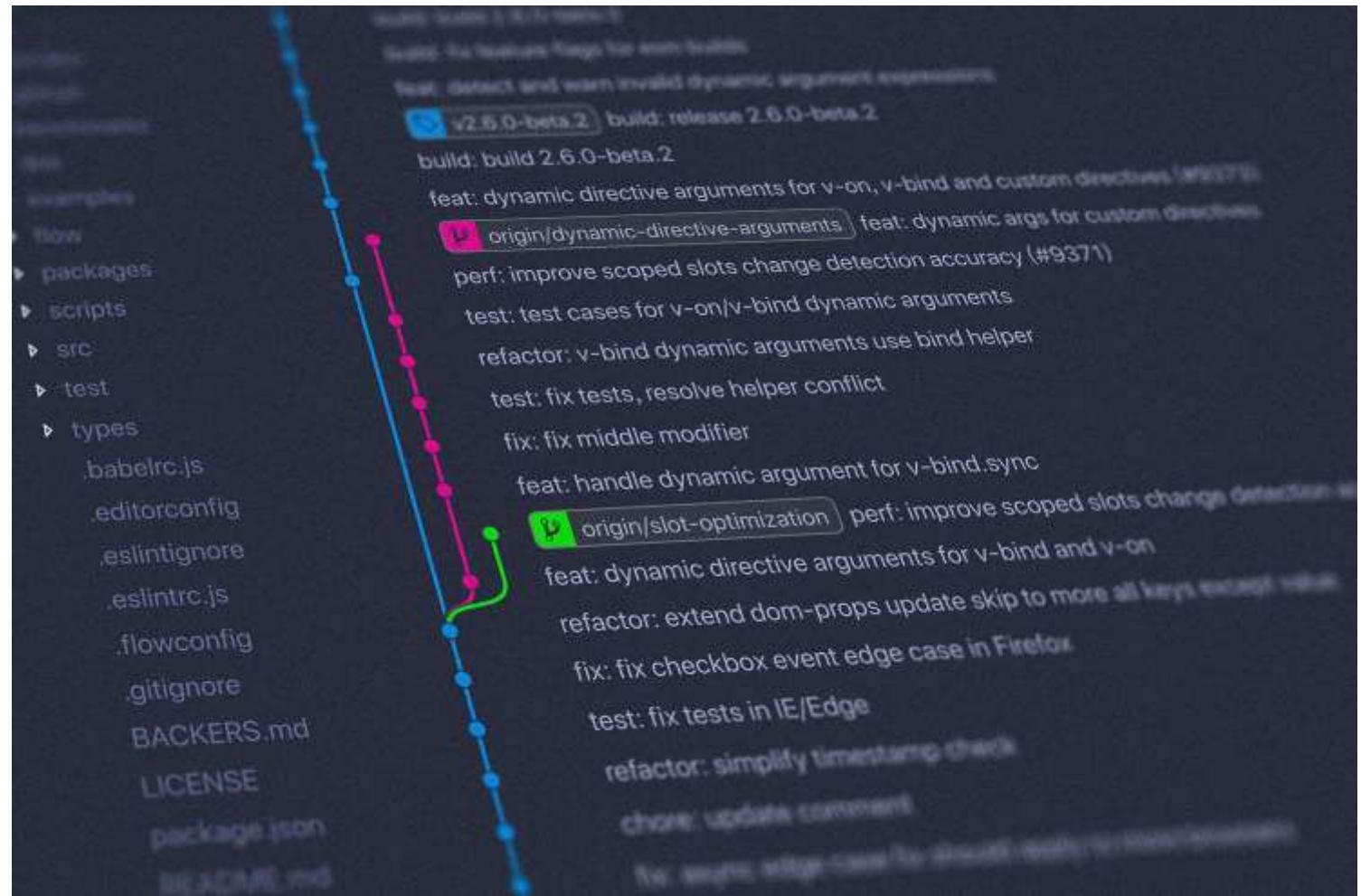
```
Asus@Asus-PC MINGW64 /d/GeeksForGeeks-Branching and merging (master)
$ git branch
* master
  next-five-even-odd

Asus@Asus-PC MINGW64 /d/GeeksForGeeks-Branching and merging (master)
$ git checkout next-five-even-odd
Switched to branch 'next-five-even-odd'

Asus@Asus-PC MINGW64 /d/GeeksForGeeks-Branching and merging (next-five-even-odd)
$ git branch
  master
* next-five-even-odd

Asus@Asus-PC MINGW64 /d/GeeksForGeeks-Branching and merging (next-five-even-odd)
$ :
```

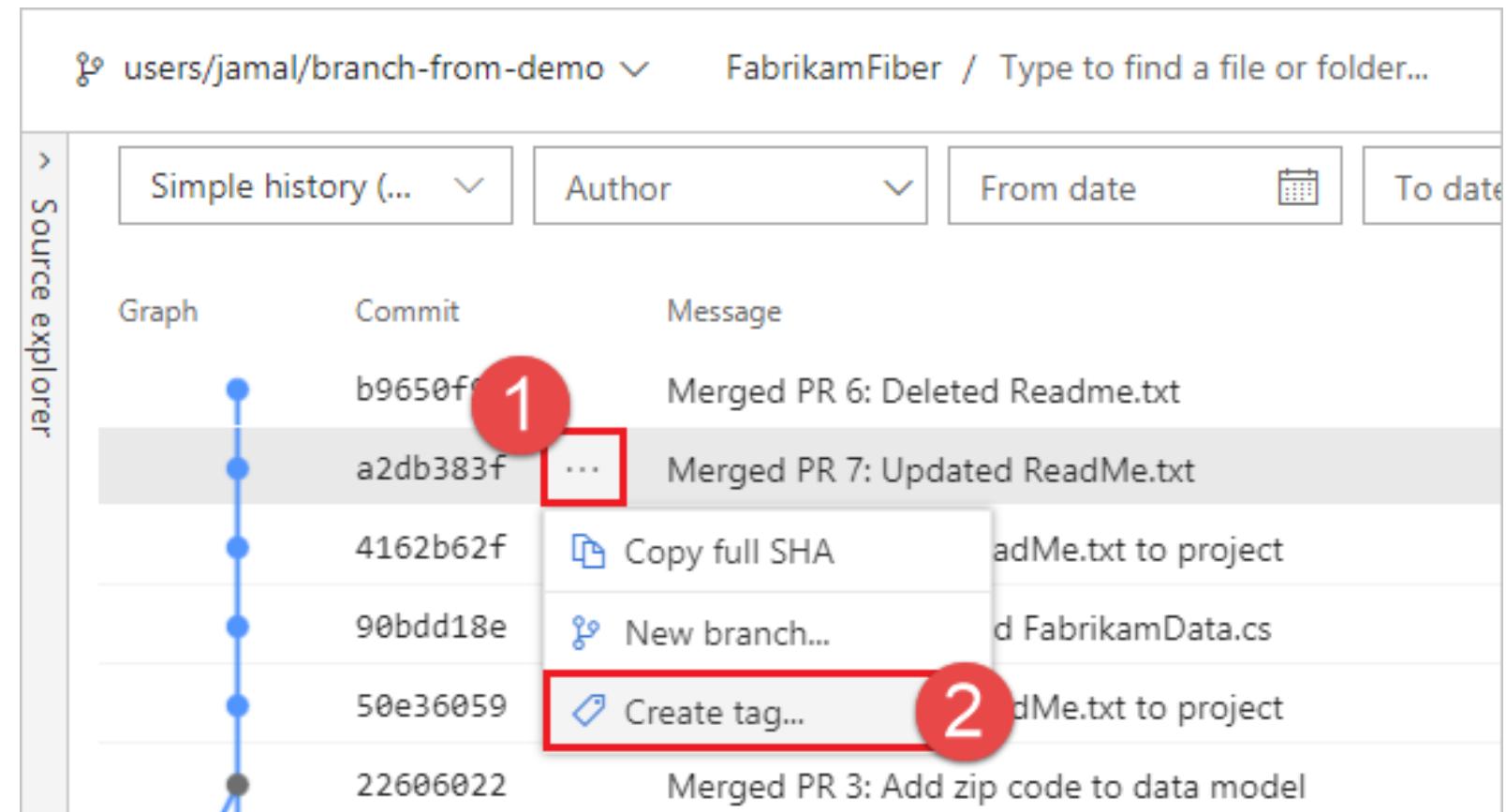
LABORATORIO 6



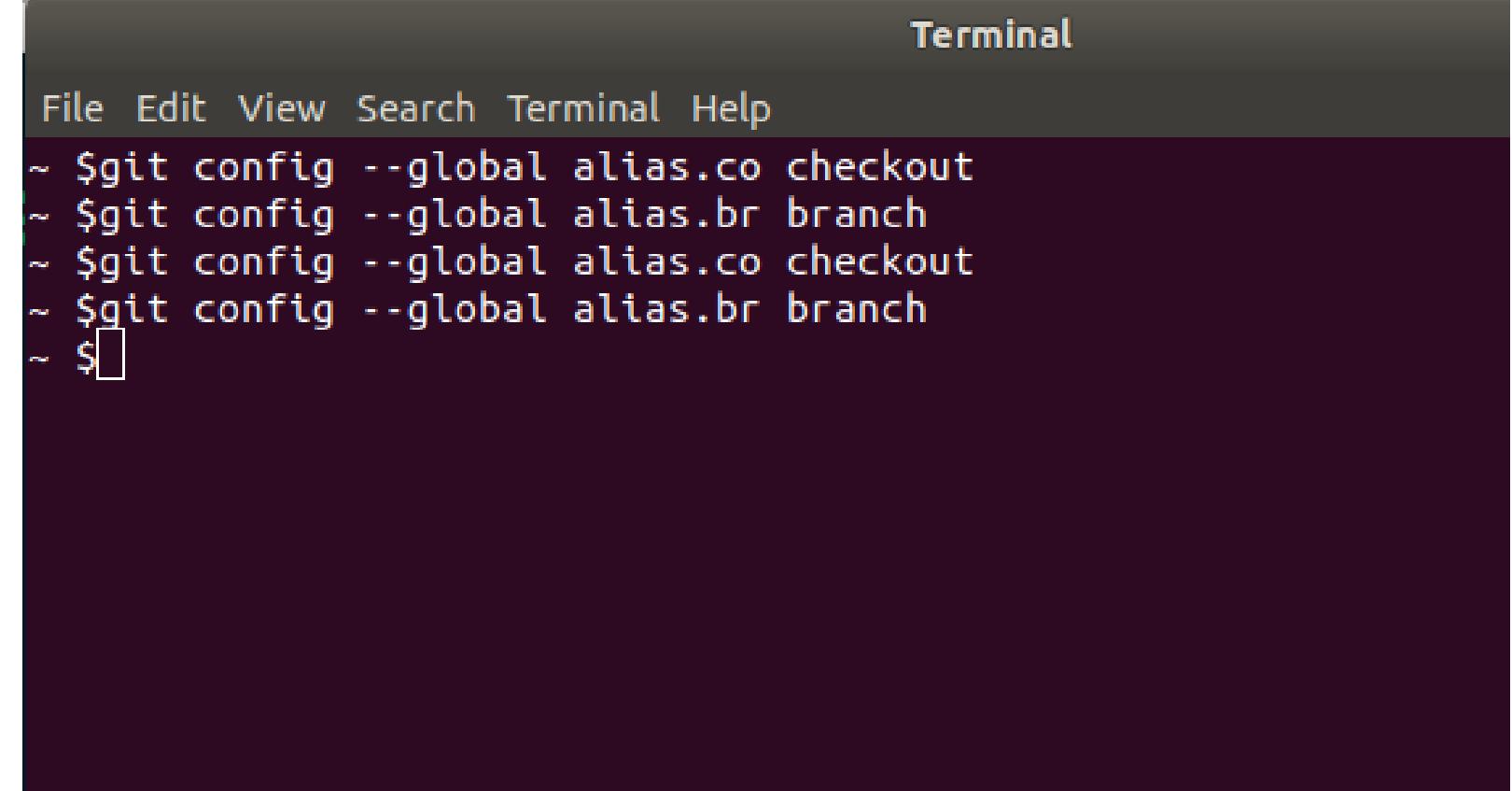
G I T T A G



ETIQUETA ANOTADA Y LIGERA



ALIAS



A screenshot of a terminal window titled "Terminal". The window has a dark background and a light-colored menu bar at the top. The menu bar includes "File", "Edit", "View", "Search", "Terminal", and "Help". Below the menu bar, there is a list of command-line entries. The entries are:

- ~ \$git config --global alias.co checkout
- ~ \$git config --global alias.br branch
- ~ \$git config --global alias.co checkout
- ~ \$git config --global alias.br branch
- ~ \$

The terminal window is set against a background that features a circular gradient from purple to blue.





















































