Contents

Comandos de Git

Git Clone

Git clone es un comando que sirve para hacer una copia local de un repositorio.

Git Status

Git status indica en que rama del repositorio estamos y aporta información sobre el estado de los archivos.

Git Add

Git add es un comando que permite añadir propuestas de nuevos archivos y cambios sobre estos en los ya existentes. Es una herramienta útil para informar y guardar la evolución que ha tenido el repositorio. Se pueden añadir propuestas de archivos arbitrariamente o añadir todos los archivos cambiados mediante (*add* .) .

Git Commit

git commit permite confirmar los cambios y las propuestas existentes.

Git Push

git push implanta los cambios aceptados del repositorio local al del servidor.

Git Pull

git pull permite actualizar un repositorio local una vez haya sido clonado.

Git Branch

Git Branch muestra las ramas creadas en nuestro repositorio. También sirve para crear ramas nuevas.

Git Checkout

git checkout permite cambiar la rama del repositorio en la que estamos trabajando. Por otro lado, la especificacion -b permite crear una nueva rama y moverse automáticamente a esta.

Git Rm

Git rm permite borrar archivos del repositorio.

Git Mv

Git mv permite cambiar el nombre de un fichero existente.

Git Log

Git log muestra un historial de los commits realizados en el repositorio. También se podrá utilizar el comando checkout para viajar a commits específicos dentro de una misma rama.

Git Show

Git show muestra el último commit realizado en el repositorio. También puede mostrar un commit anterior si se especifica el identificador de este.

Git Revert

Git revert crea una acción en el repositorio que deshace al último que se ha confirmado. Es necesario hacer un commit después de usar este comando. Este comando no elimina los commit anteriores.

Git Reset

Git reset elimina los commits que se han confirmado después del especificado en el comando. Esta acción elimina los commits del historial.

Anexo práctica 1

Software Instalado

```
C:\Users\jesus>mvn --version
Apache Maven 3.8.4 (9b656c72d54e5bacbed989b64718c159fe39b537)
Maven home: C:\Program Files\apache-maven-3.8.4-bin\apache-maven-3.8.4
Java version: 17, vendor: Oracle Corporation, runtime: C:\Program Files\Java\jdk-17
Default locale: en_GB, platform encoding: Cp1252
OS name: "windows 10", version: "10.0", arch: "amd64", family: "windows"

C:\Users\jesus>java --version
java 17 2021-09-14 LTS
Java(TM) SE Runtime Environment (build 17+35-LTS-2724)
Java HotSpot(TM) 64-Bit Server VM (build 17+35-LTS-2724, mixed mode, sharing)
```

Gitpod (Push)

```
gitpod /workspace/hello-world $ git status
On branch main
Your branch is up to date with 'origin/main'.

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

nothing added to commit but untracked files present (use "git add" to track)
gitpod /workspace/hello-world $ git add Push_Pull.txt
gitpod /workspace/hello-world $ git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   Push_Pull.txt

gitpod /workspace/hello-world $ git commit -m "Push and Pull"
[main 583a0f1] Push and Pull
 1 file changed, 1 insertion(+)
 create mode 100644 Push_Pull.txt

 gitpod /workspace/hello-world $ git status
 On branch main
 Your branch is ahead of 'origin/main' by 1 commit.
   (use "git push" to publish your local commits)

 nothing to commit, working tree clean
 gitpod /workspace/hello-world $ git push
 Enumerating objects: 4, done.
 Counting objects: 100% (4/4), done.
 Delta compression using up to 16 threads
 Compressing objects: 100% (2/2), done.
 Writing objects: 100% (3/3), 308 bytes | 308.00 KiB/s, done.
 Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
 remote: Resolving deltas: 100% (1/1), completed with 1 local object.
 To https://github.com/jesuslln/hello-world.git
    be9352f..583a0f1  main -> main
```

Visual Studio (git pull – rm – push – mv)

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git pull
remote: Enumerating objects: 14, done.
remote: Counting objects: 100% (14/14), done.
remote: Compressing objects: 100% (8/8), done.
remote: Total 13 (delta 5), reused 10 (delta 2), pack-reused 0
Unpacking objects: 100% (13/13), 1.21 KiB | 20.00 KiB/s, done.
From https://github.com/jesuslln/hello-world
   6635d4b..583a0f1  main        -> origin/main
Fast-forward
 Pull.txt       | 0
 Push_Pull.txt | 1 +
 2 files changed, 1 insertion(+)
 create mode 100644 Push_Pull.txt
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git rm .\Push_Pull.txt
rm 'Push_Pull.txt'
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git status
On branch main

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        deleted:    Push_Pull.txt

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

PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git add .
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   Local_Push.txt
        deleted:    Push_Pull.txt

PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git commit -m "Vs Changes"
[main 8f754bb] Vs Changes
 2 files changed, 1 deletion(-)
 create mode 100644 Local_Push.txt
 delete mode 100644 Push_Pull.txt
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> 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), 281 bytes | 281.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/jesuslln/hello-world.git
   583a0f1..8f754bb  main -> main
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git mv .\Local_Push.txt Local_mv.txt
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    Local_Push.txt -> Local_mv.txt

PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git add .
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git status
On branch main
Your branch is up to date with 'origin/main'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        renamed:    Local_Push.txt -> Local_mv.txt

PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git commit -m "moving file"
[main c52a674] moving file
 1 file changed, 0 insertions(+), 0 deletions(-)
 rename Local_Push.txt => Local_mv.txt (100%)
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git push
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 8 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 230 bytes | 230.00 KiB/s, done.
Total 2 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/jesuslln/hello-world.git
   8f754bb..c52a674  main -> main
```

Git Log

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log
commit c52a674fc90752a512100bed32948917c82219d0 (HEAD -> main, origin/main, origin/HEAD)
Author: Jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:56:52 2022 +0000

    moving file

commit 8f754bb0c70439793126afb3a5130e153d874c92
Author: Jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:49:45 2022 +0000

    Vs Changes

commit 583a0f114f2c0eee414ce3524f24e0c6ea21b6c6
Author: jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:43:52 2022 +0000

    Push and Pull

commit be9352f6c283798ef419eca104785e17911be09d
Author: jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:39:36 2022 +0000

    borrando

commit 09cc8904c123b15066bda2c2585650711b4a964b
Author: jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:35:28 2022 +0000

    changing main
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log --follow .\Local_mv.txt
commit c52a674fc90752a512100bed32948917c82219d0 (HEAD -> main, origin/main, origin/HEAD)
Author: Jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:56:52 2022 +0000

    moving file

commit 8f754bb0c70439793126afb3a5130e153d874c92
Author: Jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:49:45 2022 +0000

    Vs Changes
```

Git Show

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git show
commit c52a674fc90752a512100bed32948917c82219d0 (HEAD -> main, origin/main, origin/HEAD)
Author: Jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:56:52 2022 +0000

    moving file

diff --git a/Local_Push.txt b/Local_mv.txt
similarity index 100%
rename from Local_Push.txt
rename to Local_mv.txt
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git show 583a0f114f2c0eee414ce3524f24e0c6ea21b6c6
commit 583a0f114f2c0eee414ce3524f24e0c6ea21b6c6
Author: jesuslln <201910180@alu.comillas.edu>
Date:   Wed Jan 26 08:43:52 2022 +0000

    Push and Pull

diff --git a/Push_Pull.txt b/Push_Pull.txt
new file mode 100644
index 0000000..7f2d3bf
--- /dev/null
+++ b/Push_Pull.txt
@@ -0,0 +1 @@
+This file will be pushed and pulled
\ No newline at end of file
```

Git revert and Git reset

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log --oneline
044ba6c (HEAD -> main, origin/main, origin/HEAD) changes to undo
c52a674 moving file
8f754bb Vs Changes
be9352f borrando
09cc890 changing main
3a4d8d4 Pulling from Gitpod
49be5da Pulling from Gitpod
6635d4b Entrega de mi primera practica
d22a129 Learning to upload a file
48fe276 Merge pull request #1 from gitt-3-pat/feature/1
5b68377 Primera iteracion
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git revert 044ba6c
error: your local changes would be overwritten by revert.
hint: commit your changes or stash them to proceed.
fatal: revert failed
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git commit -m "revert changes"
[main 518dbc5] revert changes
 2 files changed, 2 deletions(-)
 delete mode 100644 diff.txt
 delete mode 100644 undo.txt
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log --oneline
518dbc5 (HEAD -> main) revert changes
044ba6c (origin/main, origin/HEAD) changes to undo
c52a674 moving file
8f754bb Vs Changes
583a0f1 Push and Pull
be9352f borrando
09cc890 changing main
3a4d8d4 Pulling from Gitpod
49be5da Pulling from Gitpod
6635d4b Entrega de mi primera practica
d22a129 Learning to upload a file
48fe276 Merge pull request #1 from gitt-3-pat/feature/1
5b68377 Primera iteracion
5038239 Initial commit
```

```
518dbc5 (HEAD -> main) revert changes
044ba6c (origin/main, origin/HEAD) changes to undo
c52a674 moving file
8f754bb Vs Changes
be9352f borrando
09cc890 changing main
3a4d8d4 Pulling from Gitpod
49be5da Pulling from Gitpod
6635d4b Entrega de mi primera practica
d22a129 Learning to upload a file
48fe276 Merge pull request #1 from gitt-3-pat/feature/1
5b68377 Primera iteracion
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git reset c52a674
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log --oneline
c52a674 (HEAD -> main) moving file
8f754bb Vs Changes
583a0f1 Push and Pull
be9352f borrando
09cc890 changing main
3a4d8d4 Pulling from Gitpod
49be5da Pulling from Gitpod
6635d4b Entrega de mi primera practica
d22a129 Learning to upload a file
48fe276 Merge pull request #1 from gitt-3-pat/feature/1
5b68377 Primera iteracion
5038239 Initial commit
```

Git Checkout

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git checkout c52a674
Note: switching to 'c52a674'.

You are in 'detached HEAD' state. You can look around, make experimental
changes and commit them, and you can discard any commits you make in this
state without impacting any branches by switching back to a branch.

If you want to create a new branch to retain commits you create, you may
do so (now or later) by using -c with the switch command. Example:

  git switch -c <new-branch-name>

Or undo this operation with:

  git switch -

Turn off this advice by setting config variable advice.detachedHead to false

HEAD is now at c52a674 moving file
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log --oneline
c52a674 (HEAD) moving file
8f754bb Vs Changes
583a0f1 Push and Pull
be9352f borrando
09cc890 changing main
3a4d8d4 Pulling from Gitpod
49be5da Pulling from Gitpod
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git checkout main
Previous HEAD position was c52a674 moving file
Switched to branch 'main'
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git log --oneline
92d89c0 (HEAD -> main) revert undo changes
044ba6c (origin/main, origin/HEAD) changes to undo
c52a674 moving file
8f754bb Vs Changes
583a0f1 Push and Pull
be9352f borrando
09cc890 changing main
3a4d8d4 Pulling from Gitpod
49be5da Pulling from Gitpod
6635d4b Entrega de mi primera practica
d22a129 Learning to upload a file
48fe276 Merge pull request #1 from gitt-3-pat/feature/1
5b68377 Primera iteracion
5038239 Initial commit
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git branch
  feature/1
* main
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git checkout feature/1
Updating files: 100% (3/3), done.
Switched to branch 'feature/1'
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git branch
* feature/1
  main
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git branch rama
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git branch
* feature/1
  main
  rama
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git checkout ramita
error: pathspec 'ramita' did not match any file(s) known to git
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git checkout -b ramita
Switched to a new branch 'ramita'
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git branch
  feature/1
  main
  rama
* ramita
```

```
PS D:\Jesus\0_Universidad\ICAI\Año 3\Cuatri 2\PAT\Practica 1\hello-world> git push --set-upstream origin feature/1
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (5/5), done.
```