



UNIVERSIDAD
CATÓLICA
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Carrera de
Ingeniería
Mecatrónica



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EMBEDDED SYSTEMS II

AGENDA

1. Git use
2. Clone
3. Checkout
4. Pull / Push
5. Merge – Pull Request
6. Rebase



GIT USE

Git Clone:

- ▶ The clone command allow us to copy a repository that is contained in the Github remote storage. To use it we need to copy the URL or SSH link to the repository:

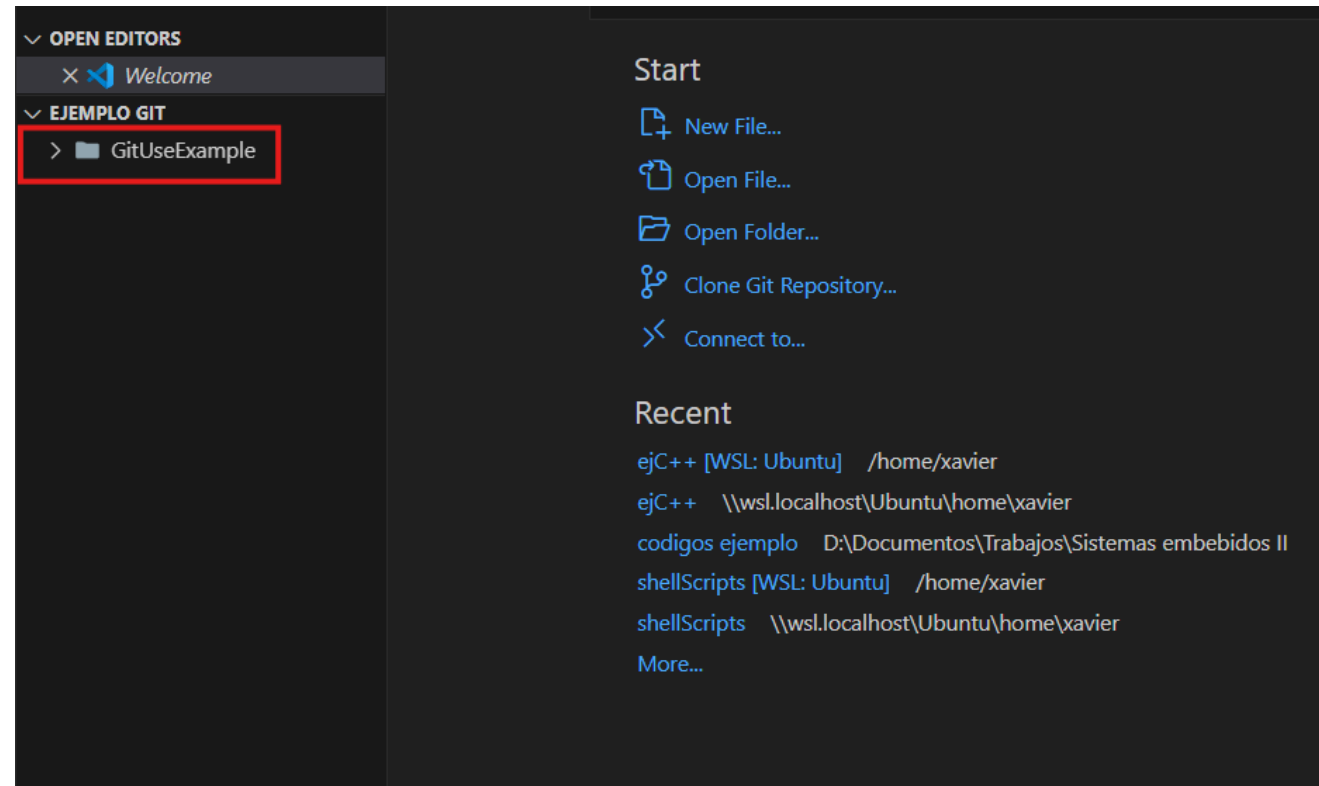
<https://github.com/XavierMurillo/GitUseExample.git>

```
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git> git clone https://github.com/XavierMurillo/GitUseExample.git
Cloning into 'GitUseExample'...
warning: You appear to have cloned an empty repository.
```



Git Clone:

- ▶ Once the repository was cloned it can be accessed from a folder created in your local repository.



Git Clone:

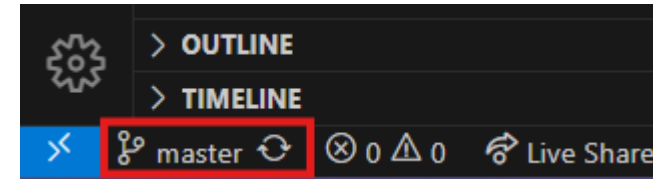
- ▶ When a repository is created is important to follow the commands github mentions to generate a main branch and start working

```
echo "# GitUseExample" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/XavierMurillo/GitUseExample.git
git push -u origin main
```



Git Clone:

- ▶ In the lower left part of vscode you will see the current branch and an update button to refresh possible changes



Git Checkout:

- ▶ You can create a new branch using the checkout command. This command can
 - ▶ Create a new branch from another
 - ▶ Change to an existing branch



Git Checkout:

To create a new branch:

```
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample> git checkout -b nuevaRamaEj
```

To change branch:

```
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample> git checkout main  
Switched to branch 'main'
```

When there are changes between branches they
Will automatically be updated in vscode.



Git Pull - Push:

After changes are made in the branch, we can send them to the remote Repository using the push command. But before we need to:

- Add the selected changes
- Make a commit
- Push the changes



Git Pull - Push:

```
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample> git add .
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample> git commit -m "Added simple py exercise"
[nuevaRamaEj fa7e7f1] Added simple py exercise
1 file changed, 6 insertions(+)
 create mode 100644 Ejercicio_Agregado.py
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample> git push origin nuevaRamaEj
```

Add . Adds all the changes to staging



Git Merge – Pull Request:

When we need to add the changes from one branch to another a merge and Pull request is needed, for that we will use the git UI to create a new pull Request. Add an assigned person and add revisors.



Git Merge – Pull request:

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#). [Learn more about diff comparisons here](#).

base: main

compare: nuevaRamaEj

✓ Able to merge. These branches can be automatically merged.

Add a title

Added simple py exercise

Write

Preview

H B I

Added a python file that adds numbers

Markdown is supported

Paste, drop, or click to add files

Reviewers

No reviews

Assignees

Xavier Murillo

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Use [Closing keywords](#) in the description to automatically close issues

Helpful resources

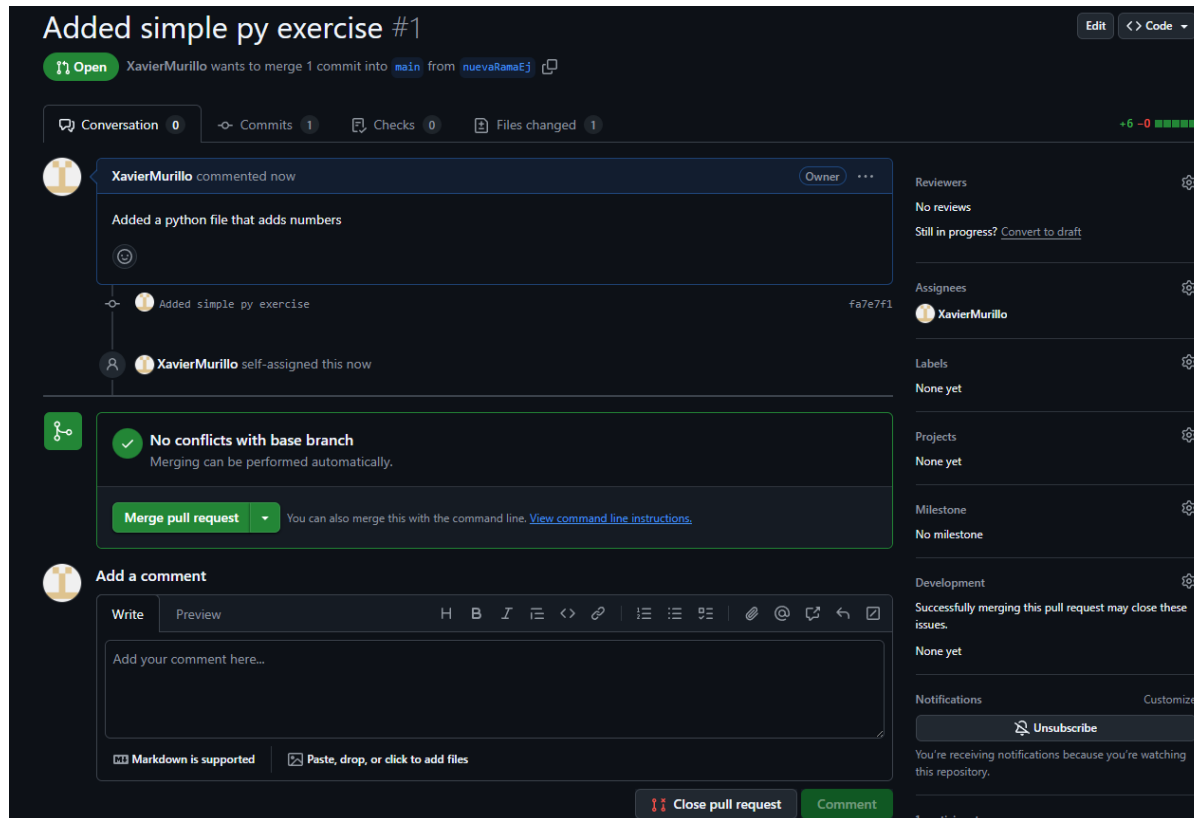
[GitHub Community Guidelines](#)

Create pull request

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).



Git Merge – Pull request:



The reviewers Will need to approve the PR and then merge it with the green button



Git Pull - Push:

When we need to update our local branch the pull command will be used.

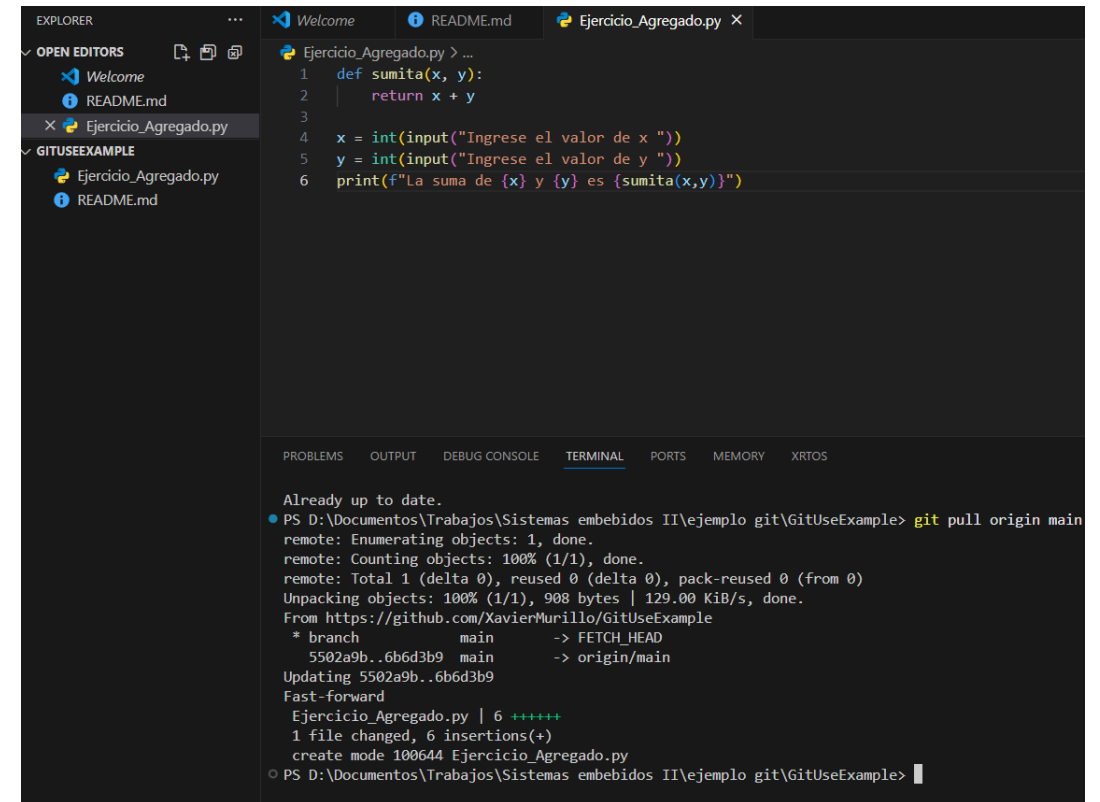
For that you need to ensure you are in the correct branch and use the word

Origin in the command. This word refers to the remote repository.



Git Pull - Push:

After a git pull origin main the python file was added to the main branch



The screenshot shows the Visual Studio Code interface. On the left, the Explorer pane shows a project named 'GITUSEEXAMPLE' containing 'Ejercicio_Agregado.py' and 'README.md'. The main editor shows the content of 'Ejercicio_Agregado.py', which contains a Python function 'sumita' and its usage. The bottom terminal pane shows the output of the command 'git pull origin main', indicating a successful fast-forward merge of the 'main' branch from the origin.

```
EXPLORER
OPEN EDITORS
Welcome
README.md
Ejercicio_Agregado.py
GITUSEEXAMPLE
Ejercicio_Agregado.py
README.md

Ejercicio_Agregado.py > ...
1 def sumita(x, y):
2     return x + y
3
4 x = int(input("Ingrese el valor de x "))
5 y = int(input("Ingrese el valor de y "))
6 print(f"La suma de {x} y {y} es {sumita(x,y)}")

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS MEMORY XRTOS

Already up to date.
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample> git pull origin main
remote: Enumerating objects: 1, done.
remote: Counting objects: 100% (1/1), done.
remote: Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (1/1), 908 bytes | 129.00 KiB/s, done.
From https://github.com/XavierMurillo/GitUseExample
* branch      main      -> FETCH_HEAD
5502a9b..6b6d3b9 main    -> origin/main
Updating 5502a9b..6b6d3b9
Fast-forward
 Ejercicio_Agregado.py | 6 +++++
1 file changed, 6 insertions(+)
create mode 100644 Ejercicio_Agregado.py
PS D:\Documentos\Trabajos\Sistemas embebidos II\ejemplo git\GitUseExample>
```



Questions?



REFERENCES

- ▶ <https://www.engineersgarage.com/what-is-an-soc/>
- ▶ <https://www.geeksforgeeks.org/difference-between-mcu-and-soc/>
- ▶ <https://www.engineersgarage.com/what-is-an-soc/>
- ▶ <https://cs.stanford.edu/people/eroberts/courses/soco/projects/risc/riscisc/#:~:text=The%20CISC%20approach%20attempts%20to,number%20of%20instructions%20per%20program.>



THANK YOU FOR YOUR ATTENTION!



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