

WIZELINE

Hands On Git + Github

Meet the team



Software Engineer

Javier Carmona Gallegos

- 30 years old.
- From Cortazar Guanajuato
- Computer Science Engineer from ITC
- 8 years of experience
- Software Engineer at Wizeline



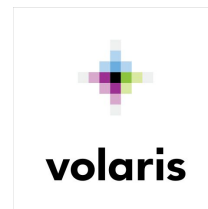
Where did I collaborated?



The Washington Post



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UNIVERSIDAD DE
GUANAJUATO



ROSETTA



What to expect of this workshop



- Know What is Git
- Know What is Github
- Describe the difference between Git and Github
- Know the very basic Git commands
- Know to setup a Git repository*
- Know to upload a Git repository to Github*
- Know the basics about collaborating

What is Git?



git

For who is Git?

A: For anyone who code

**What happens if I
decide not to use
git?**

When I should start using Git?

What is Github?



Alternatives to Github



GitLab



ATLASSIAN

Bitbucket



**Azure
DevOps**



Gitea

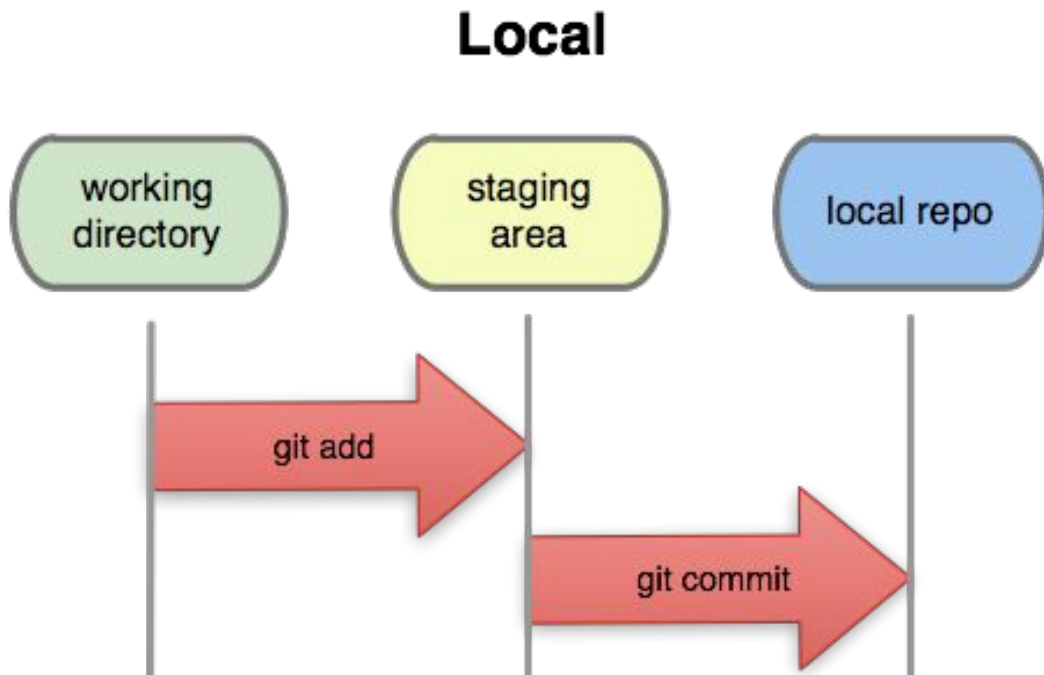
What is a good practice to track?

- **Code Java, C, C++, HTML, CSS, JS, C#, Swift, PHP, Assembly**
- **Basic Assets like Icons, Custom Icons, Some Images***

What IS NOT a GOOD PRACTICE TO TRACK?

- **Large Files (Like videos, Profile Pics, Audio*)**
- **.env Files (like secret keys, Database keys, third party apikeys)**
- **Large Dependencies (node_modules)**
- **Ofimatic Files, PDF Files**

How git works?



Knowing if you have Git

On a terminal execute:

```
git --version
```

Recipe to setup a Git Repository y (In your local machine)

On a terminal go to the root of your project and execute:

```
git init
```

Then Execute:

```
git status
```

Then Execute:

```
git config --global core.editor nano
```

Commit our changes

Execute:

```
git add .
```

Then Execute:

```
git commit -m "First
```

```
Commit"
```


Check the logs and time travel

Execute:

```
git log
```

Take the hash of the commit and execute:

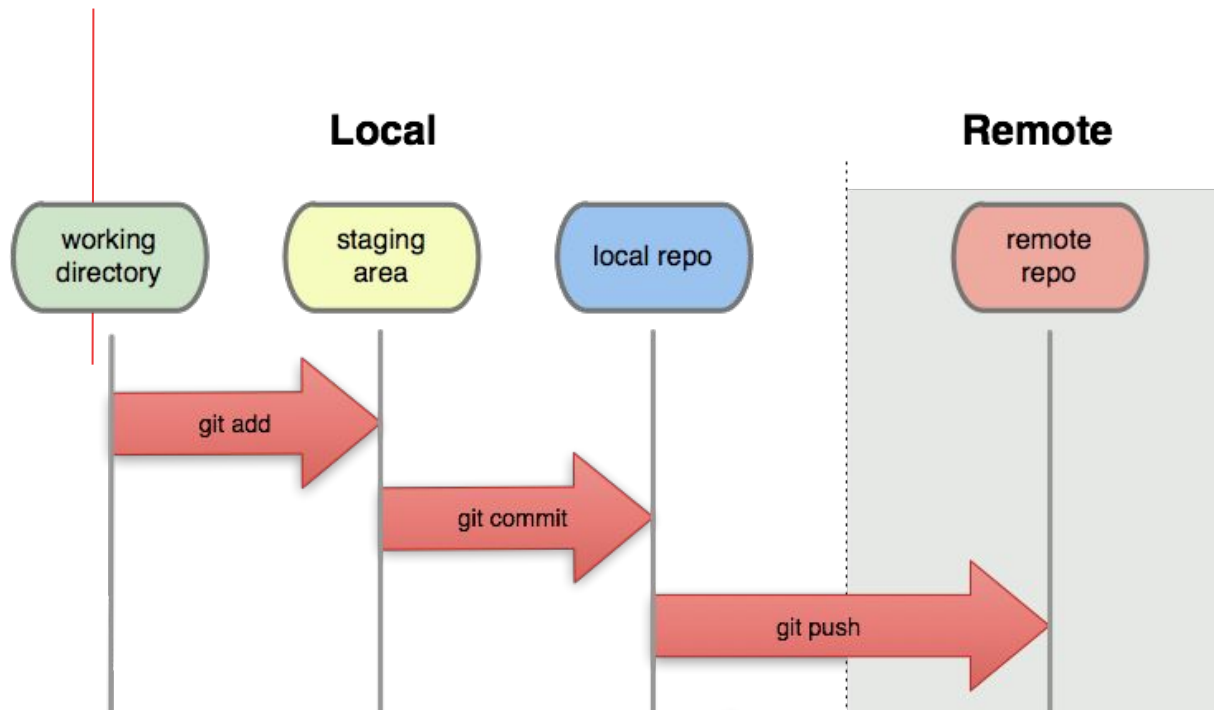
```
git checkout [commit HASH]
```

And for return to your work:

```
git checkout [branch]
```

Demonstration: Setup a Git repository + Basic Commands

How I upload a local git repo to Github?



Pushing your changes to remote repo

On a terminal go to the root of your project and execute:

```
git push
```

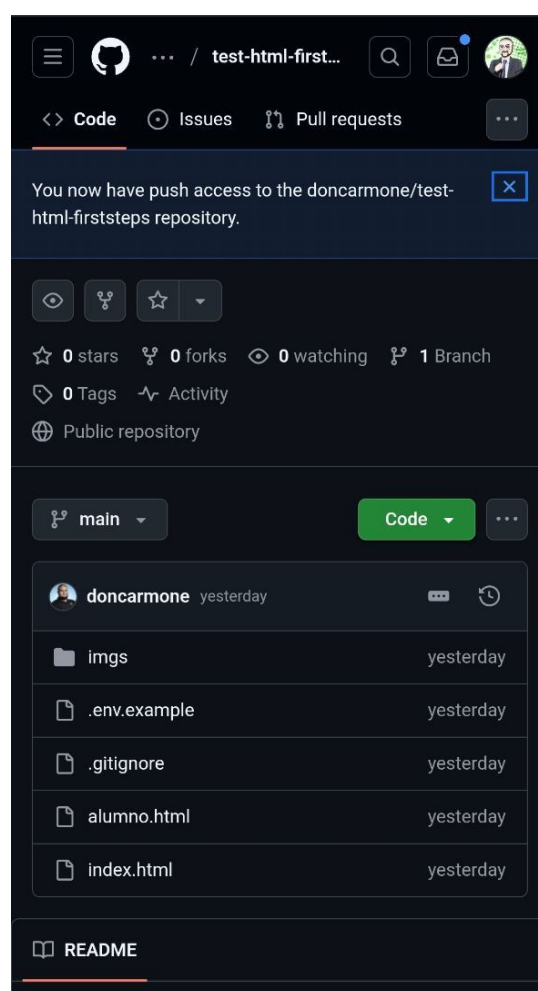
Then Execute:

```
git remote add origin [REPO]
```

Then Execute:

```
git push -u origin main
```

Invitation Example





Part II: Collaborating

How to clone a repo in my local machine

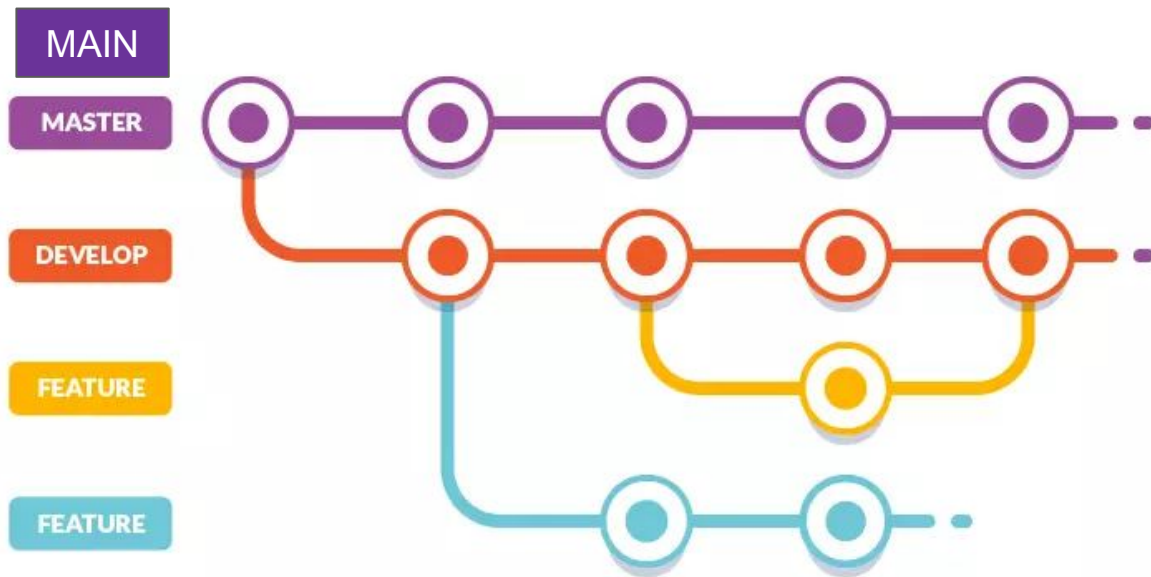
On a terminal go to the root of your project and execute:

```
git clone [REPO]
```

Then Execute:

```
git status
```

What is a branch in Git?



Basic Branch Commands

Print the branch where you are:

```
git branch
```

Create new branch:

```
git checkout -b [name]
```

Rename branch name:

```
git branch -m [new name]
```

**Demonstration of a real world example
collaborating with github.**

Basic troubleshooting

Reset all the changes on your file (Not on Stage):

```
git checkout --[The path to  
your file]
```

Unstage a file:

```
git restore --staged  
[Path to the file]
```

Basic troubleshooting

Change the message from a commit:

```
git commit --amend
```

Reset all the changes on the unstaged branch:



```
git reset --hard
```

Basic Conflict resolution

Reset all the changes on your file (Not on Stage):

```
git pull --no-ff
```

And resolve the issues and execute a normal commit

```
git add .
```

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

Basic Conflict resolution

```

PROBLEMS  TERMINAL  GITLENS  NUGET  DEBUG CONSOLE  PORTS
UW PICO 5.09  File: /Users/carmona/pocs/testhtml/.git/MERGE_MSG

Merge branch 'dev' of github.com:doncarmone/test-html-firststeps into dev
# Please enter a commit message to explain why this merge is necessary,
# especially if it merges an updated upstream into a topic branch.
#
# Lines starting with '#' will be ignored, and an empty message aborts
# the commit.

```

```

PROBLEMS  TERMINAL  GITLENS  NUGET  DEBUG CONSOLE  PORTS

> git push
To github.com:doncarmone/test-html-firststeps.git
 ! [rejected]        dev -> dev (fetch first)
error: failed to push some refs to 'github.com:doncarmone/test-html-firststeps.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

~/pocs/testhtml on dev +1
> git pull --no-ff
remote: Enumerating objects: 10, done.
remote: Counting objects: 100% (10/10), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 6 (delta 4), reused 6 (delta 4), pack-reused 0 (from 0)
Unpacking objects: 100% (6/6), 578 bytes | 64.00 KiB/s, done.
From github.com:doncarmone/test-html-firststeps
 f0a42b6..08c9ca7 dev -> origin/dev
Auto-merging README.md
Merge made by the 'ort' strategy.
 README.md | 3 +--
 1 file changed, 1 insertion(+), 2 deletions(-)

~/pocs/testhtml on dev +2
>

```



Practice time!

Further steps

Take a in a deep git course:

[Tutorial de Git Makigas](#)

Knowing about undo commits.

Know about rename, delete, and manage branches.

Knowing about stash command.

Knowing about git alias.

Knowing about internal conflict resolution (Rebase vs Fast Forward).

Knowing about cherry pick command.

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Thanks!