

# UD2-Desarrollo en Entorno Cliente

GitHub - Patrones de Diseño

Manuel Moya Vadillo - 2ºDAW

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# Índice

1. Paradigms	Main features & possible limitations.
2. Agile methodologies	XP, Scrum, Kanban, Agile Inception & Design Sprint.
3. Design Pattern	Abstract Factory & Adapter.
4. GitHub	Uses, repositories, branches & tags.

01

# Paradigms

Main features & possible limitations.

# Topics

01

Structure  
Programming

Efficiency and  
readability

02

Functional  
Programming

Composition of  
Functions

03

P00

Representation  
of elements

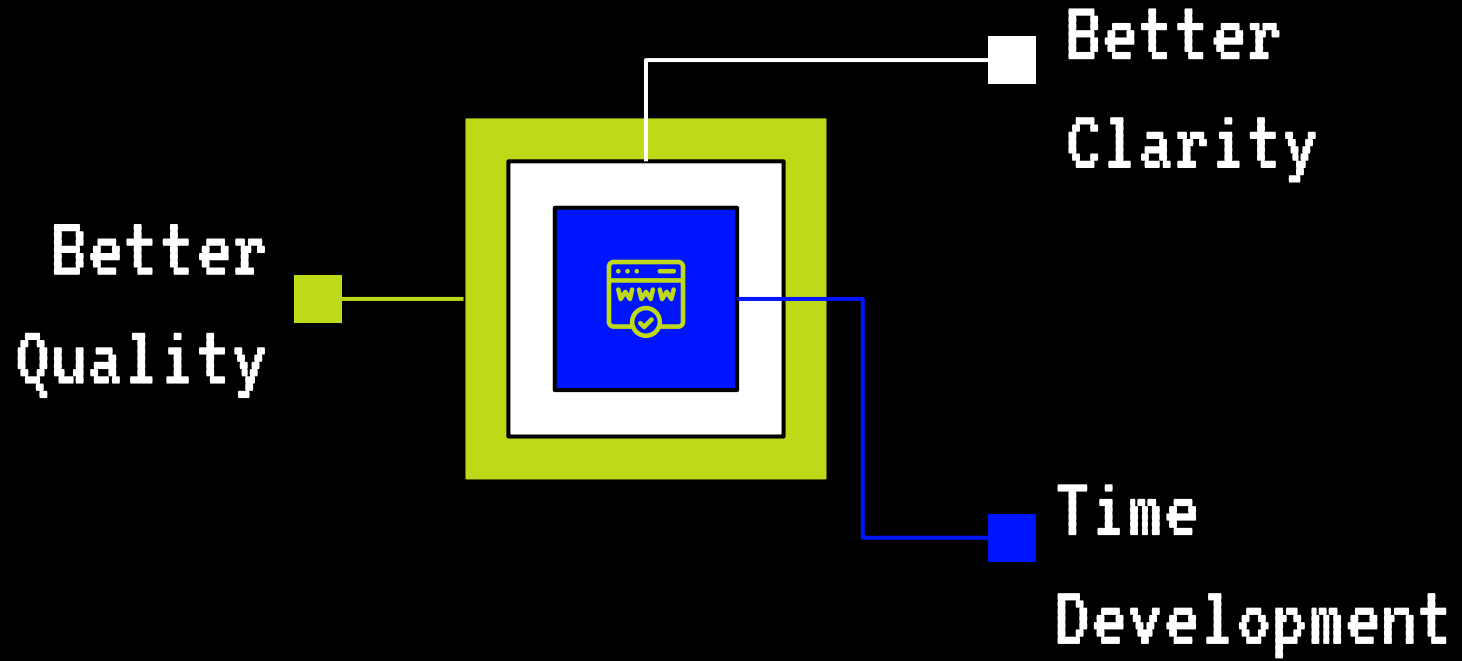
04

Reactive  
Programming

Asynchronous  
data



# Structure Programming



# Control Structures



## Sequential structure

Calls to language instructions or programmer functions.



## Conditional structure

Executes a structure if a Boolean condition is met.



## Iterative structure

Executes a structure over and over again if a boolean condition is met.

# Topics

01

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Programming

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readability

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Representation  
of elements

04

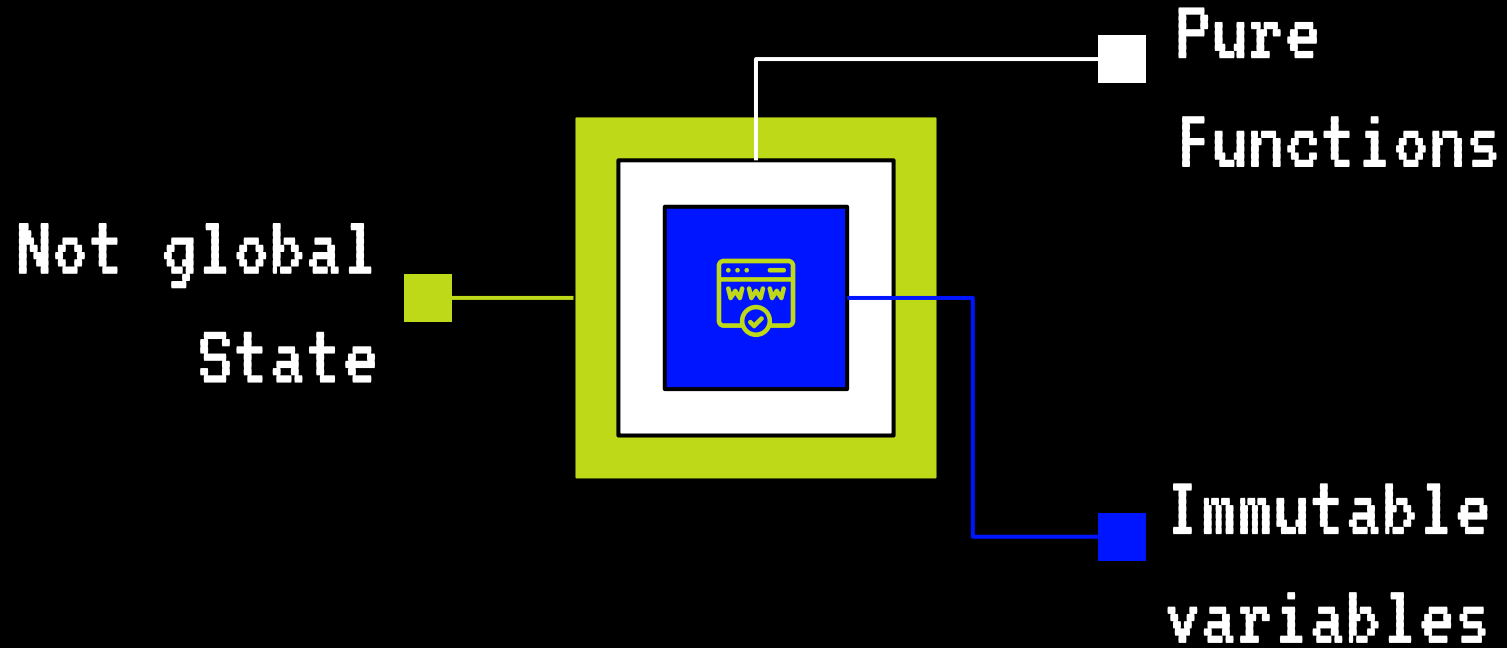
Reactive  
Programming

Asynchronous  
data

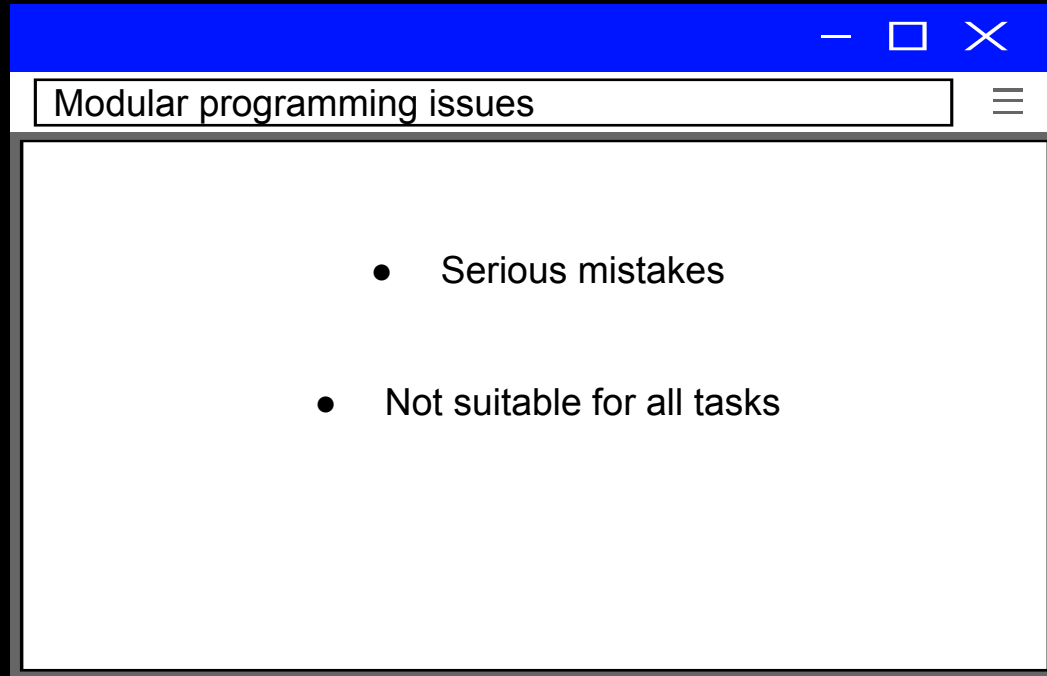




# Functional Programming



# Limitations



# Topics

01

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04

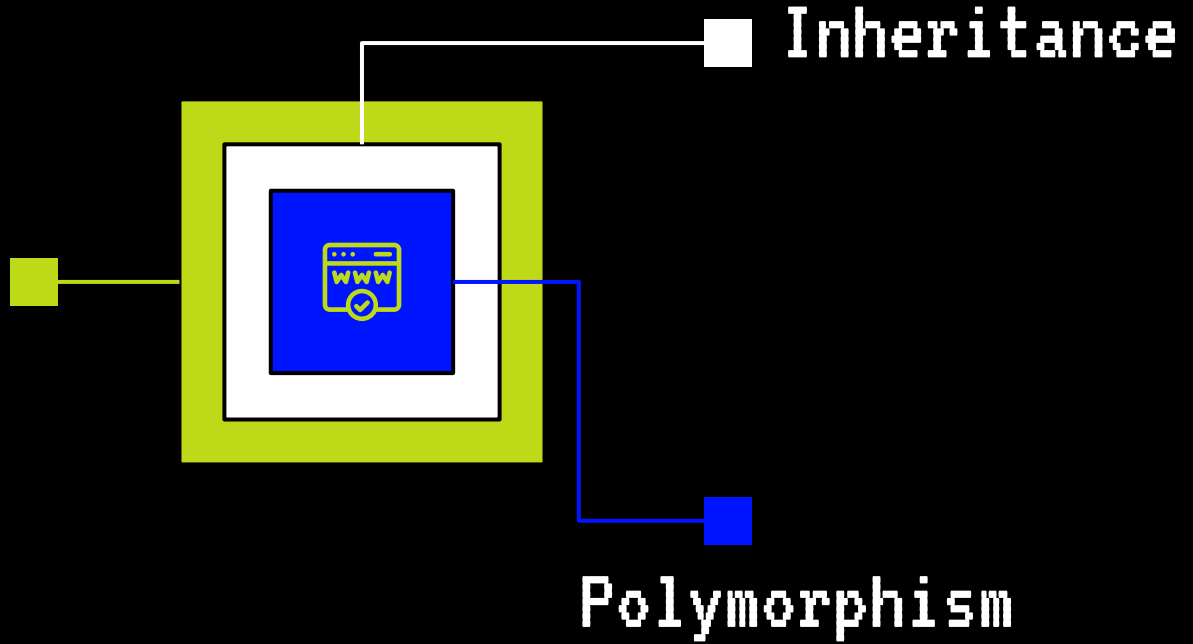
Reactive  
Programming

Asynchronous  
data



# P00

Encapsulat-  
ion





# Limitations

- There is not a unique way to resolve the problem. This may can lead to different interpretation of the solutions.
- It is required a extensive documentation to reach the solution.



# Topics

01

Programación  
Estructurada

Efficiency and  
readability



02

Functional  
Programming

Composition of  
Functions



03

P00

Representation  
of elements



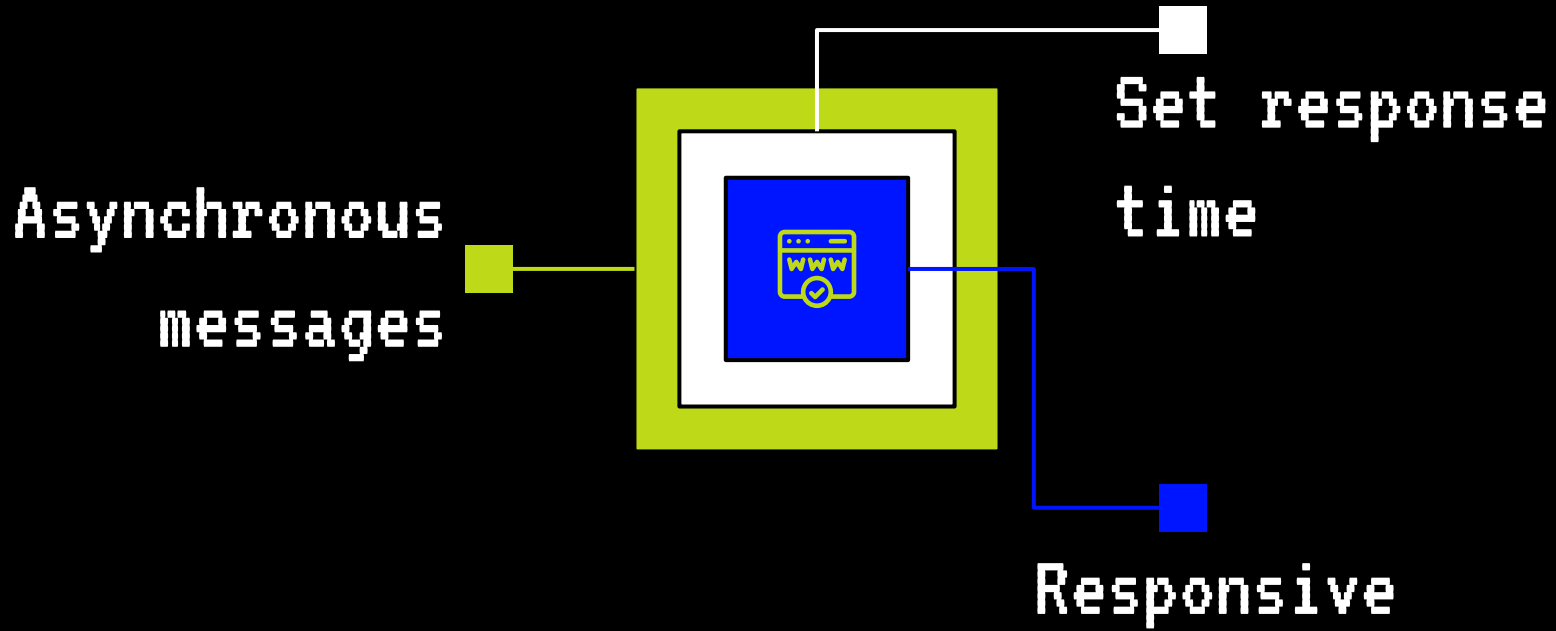
04

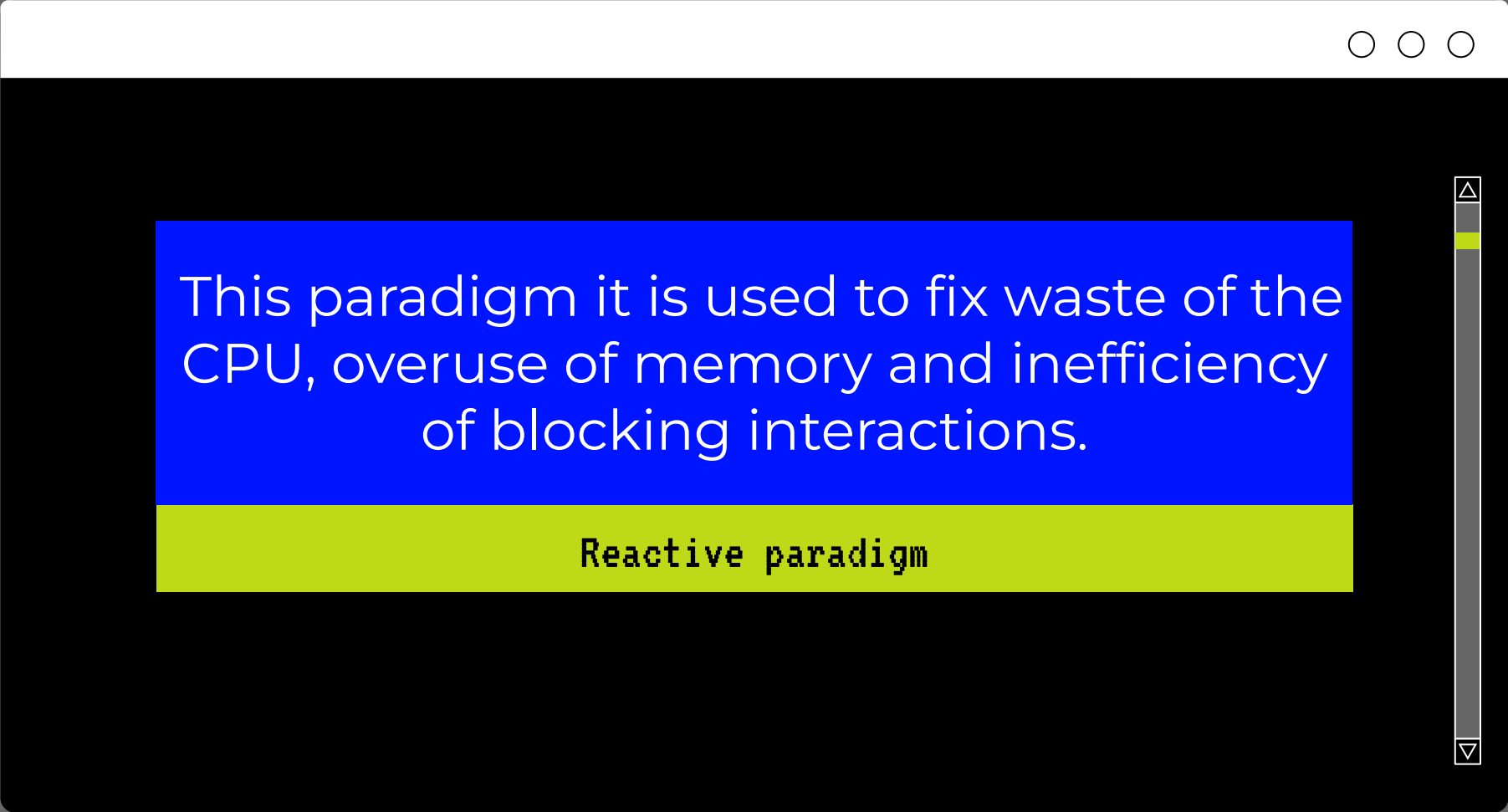
Reactive  
Programming

Asynchronous  
data



# Reactive Programming





This paradigm it is used to fix waste of the CPU, overuse of memory and inefficiency of blocking interactions.

`Reactive paradigm`





	Programming language
Estructurada	Java, Python, C, C++
Funcional	JS, Visual Basic, LISP
Orientada a objetos	C++, Sharp, PHP, Java, JS, Perl
Reactiva	Scala, Akka, Kubernetes, Kafka, Docker, etc





02

# Agile

# methodologies

XP, Scrum, Kanban, Agile Inception & Design Sprint.





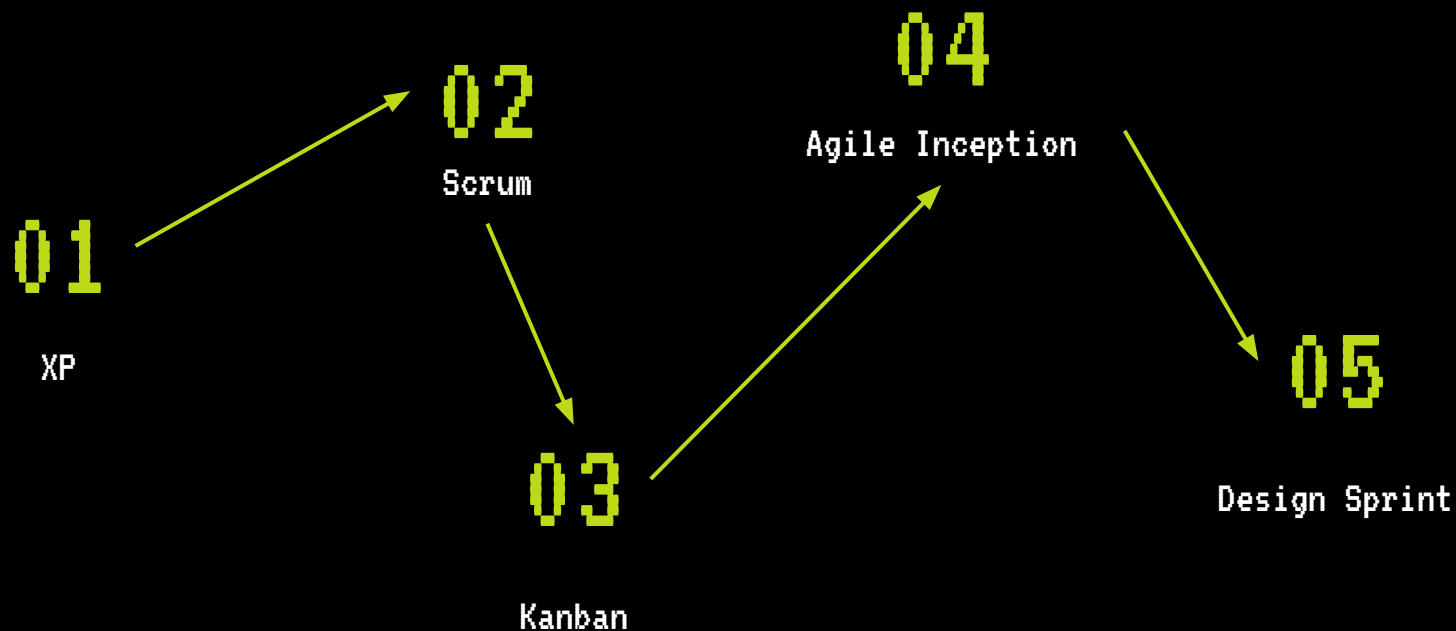
**METODOLOGÍA  
SCRUM**

## Definition:

Allow to adapt the work to the conditions of the project, obtaining flexibility and immediate in order to change the project.

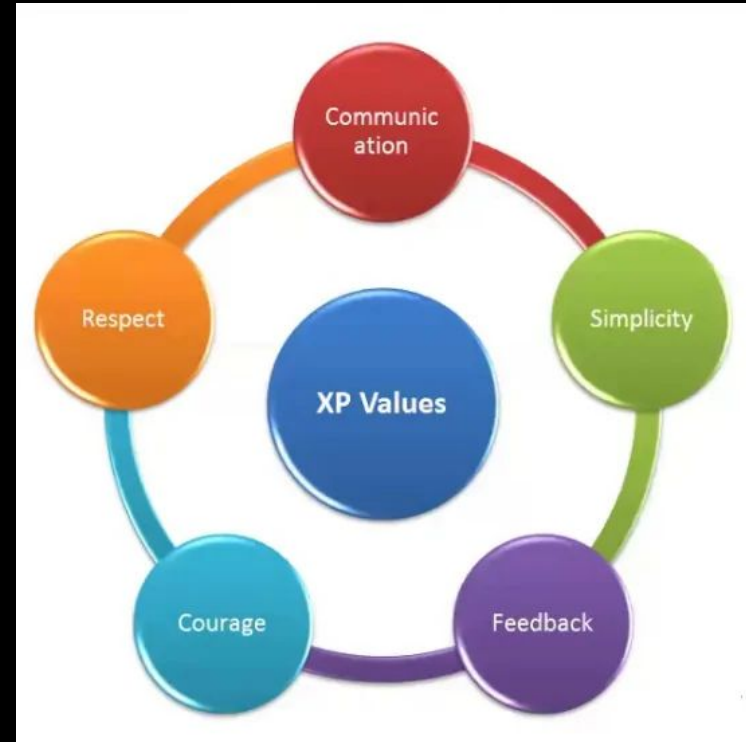


# Topics



# Methodology - XP

XP is a methodology that have as main objective create high quality systems. This systems must be done with the client interaction. Constant tests and short development cycles. This methodology approximate us to the best quality. In order to get the perfect product, we must do as many changes as we can. If we can gestionate all the changes, the client would be satisfied.



# Features



Constant contact with  
client



Quick response



Schedule of  
activities




Success factors



Software is above  
of all




# Work - Team



**Client:** provides the needs and priorities.

**Programmers:** set durations and times.

**Testers:** compares the client needs with the program.



**Tracker:** controls and trace each part of the program

**Coach:** advise the client and the programmers

**MANAGER:** coordinate communications between client and the work-team.



# Phases

1. Planning: The program is broken down into mini versions which will be reviewed. Every two weeks it must have been created a useful and functional model.
2. Design: The prototype of the software would be created. It would work with a simple code in order to make it works.
3. Coding: The coding must be in teams of two. Sometimes, the co-worker have to be change to make the code more universal.
4. Tests: This part is extremely important due to that the projects are normally really short. So the tests must be constant and automatic.



# Topics

01

XP

02

Scrum

03

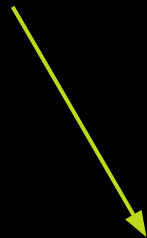
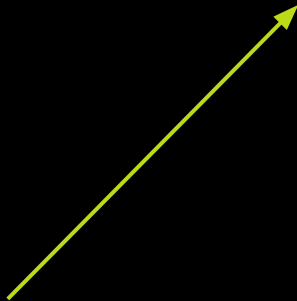
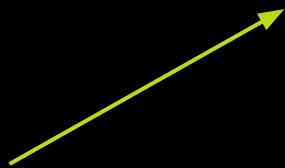
Kanban

04

Agile Inception

05

Design Sprint



# Methodology - Scrum

Scrum is a methodology that allow collaborative work between the team. Scrum encourage the teams to learn through the experience, to organize themself and to improve continually.



# Features



Flexible project



Members  
transparency



Inspection



Change  
Adaptation



Iterative  
development



# Work - Team



**Product owner:** the only one who talks with the client (Only one). Manages the product backlog



**Scrum Master:** takes the responsibility of the scrum techniques. The issues of the team are removed by him.



**Development team:** In charge of make the development of the task that the product owner prioritizes.



# Phases

1. Sprint planning: The team meets and decide what they are going to approach. They take each topic from the backlog and how it would be maden.
2. Daily Meeting: The meets during 15 minutes and explain what they have done, what they are going to do and what issue they have. Here you can make adapt the project to the changes.
3. Sprint Review: The client receive a final result of the product. If the client likes it, he would valid it. Unless he likes it, he would propose new changes. The changes would be added to the backlog by the product owner.
4. Sprint Retrospective: It is the last phase. Here the whole team meets to see the performance of the product and finish all the changes that they should be done the next day.

# Artifacts

## Product Backlog

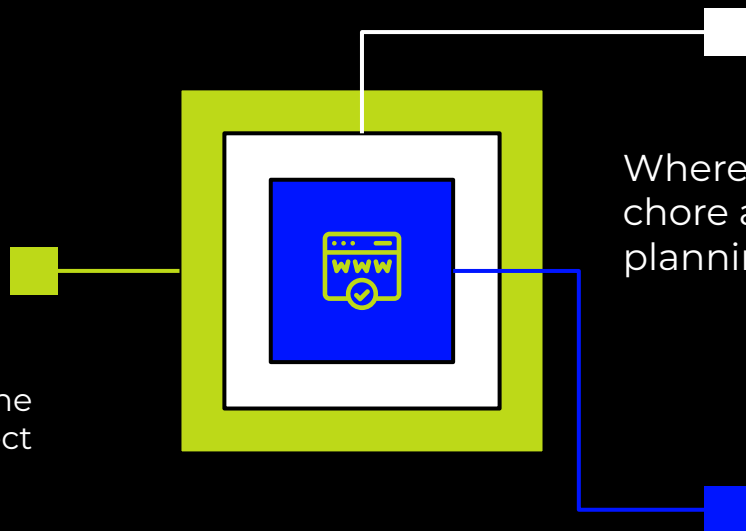
List of chores that involve the whole project

## Sprint Backlog

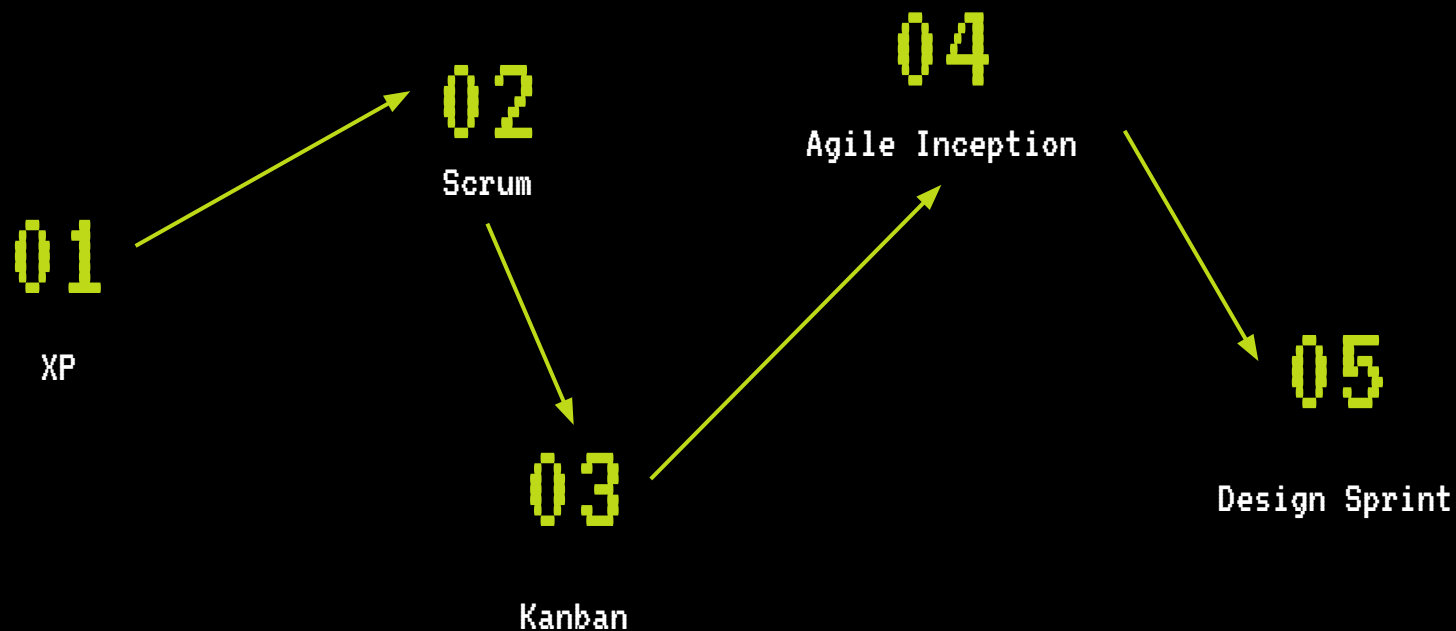
Where the team chose one chore at the sprint planning

## Increment

Merge the finished chores

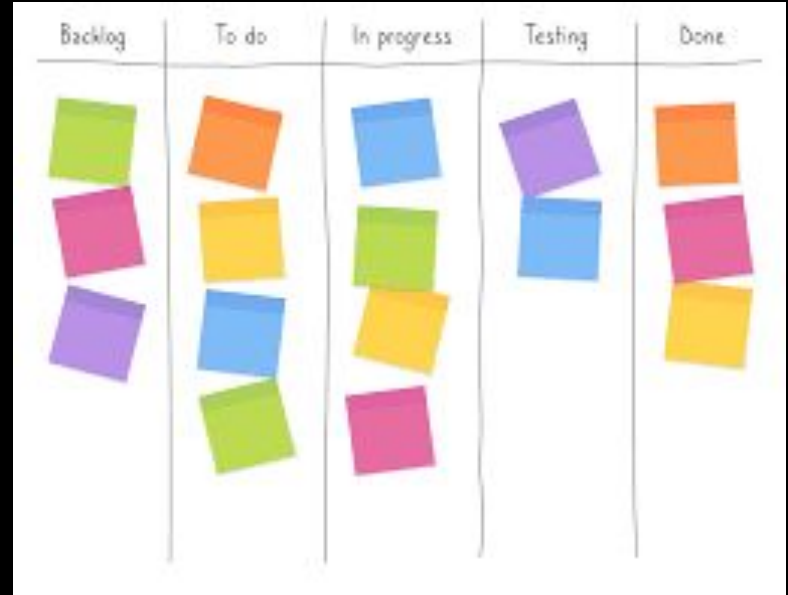


# Topics



# Methodology - Kanban

It is a very popular way to control the flow of work for define, manage and improve the services of the product. This methodology helps you to display in a better way the product, maximize the efficiency and improve continually.





# Features



Control Lists



Expiration dates



Card assignments



Card tags



Card Notes



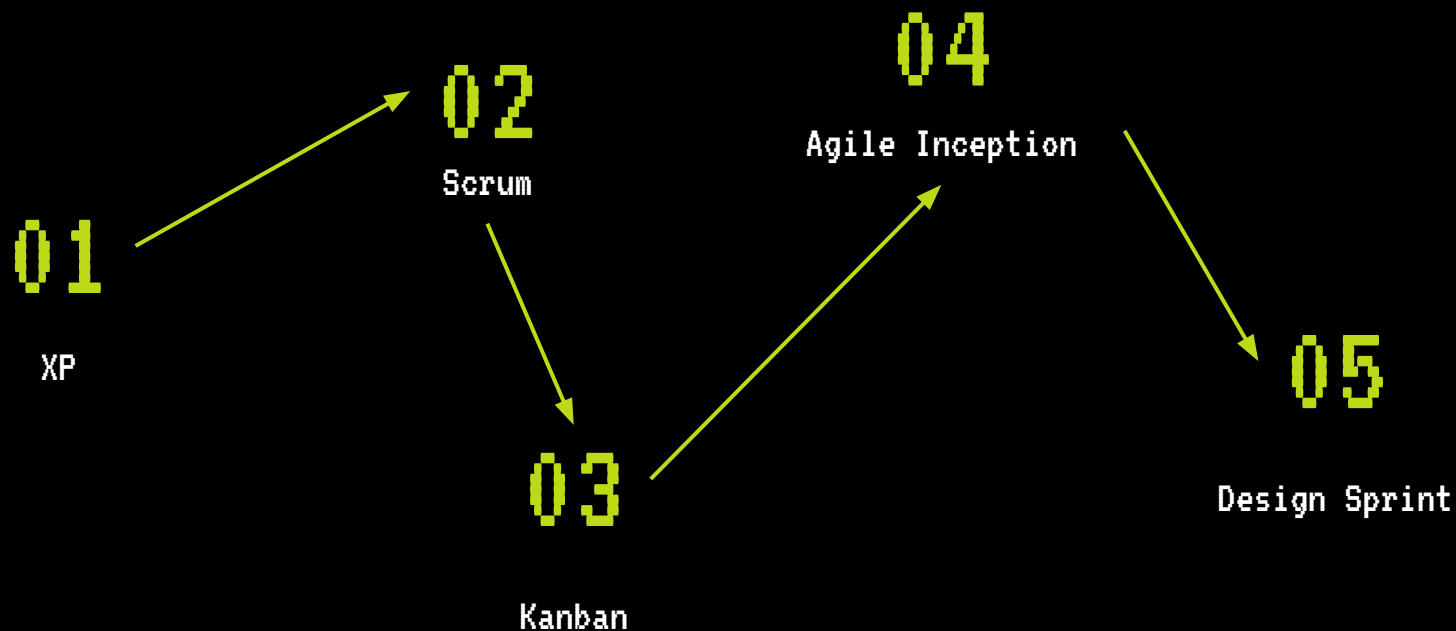
# Principal values

- Display: development moment of the project.
- Priority: the principal tasks must be in order.
- Continue upturn: the competitiveness is lost without updates.
- Same rol: everyone's involvement.
- Quality: quality before speed.

# Phases

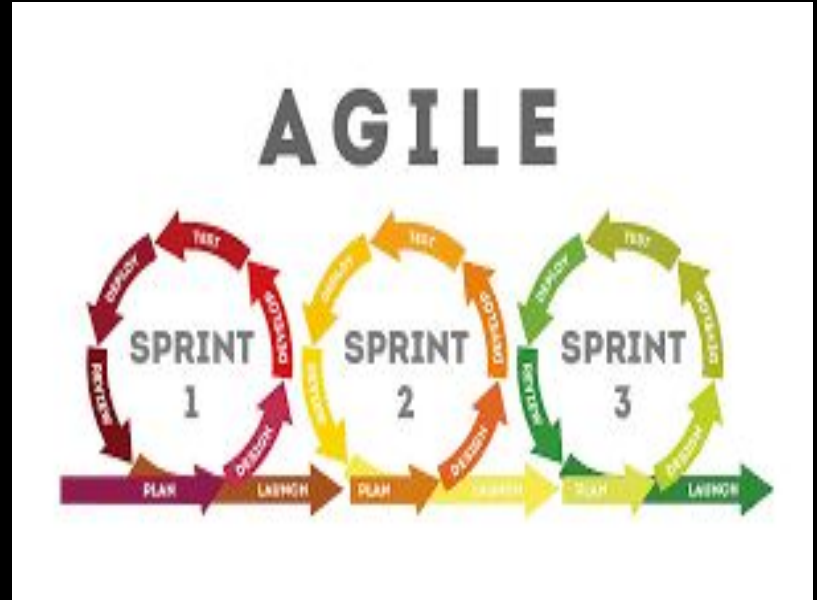
1. Board tasks: This phase consist on share the state of all the tasks: Pending, in process or Finished. All the team must have access to the tasks.
2. Product display: Consist on add all the info about that task in order to complete it.
3. Stop before Start: the slogan of kanban is “Stop starting, start finishing”. Finish the task before start other.
4. Flow control: Allow us to compile all the information of all the tasks.

# Topics



# Agile Inception

It is a very popular way to control the flow of work for define, manage and improve the services of the product. This methodology helps you to display in a better way the product, maximize the efficiency and improve continually. For it to be really useful, it requires the involvement of all the people who will participate in its development. In this way, they can present their ideas and create a joint perspective. As well as the generation of a collaborative informative and documentary process.



# Features



Workers and  
interactions



Multidisciplinary



Customer  
Collaboration



Response to  
change



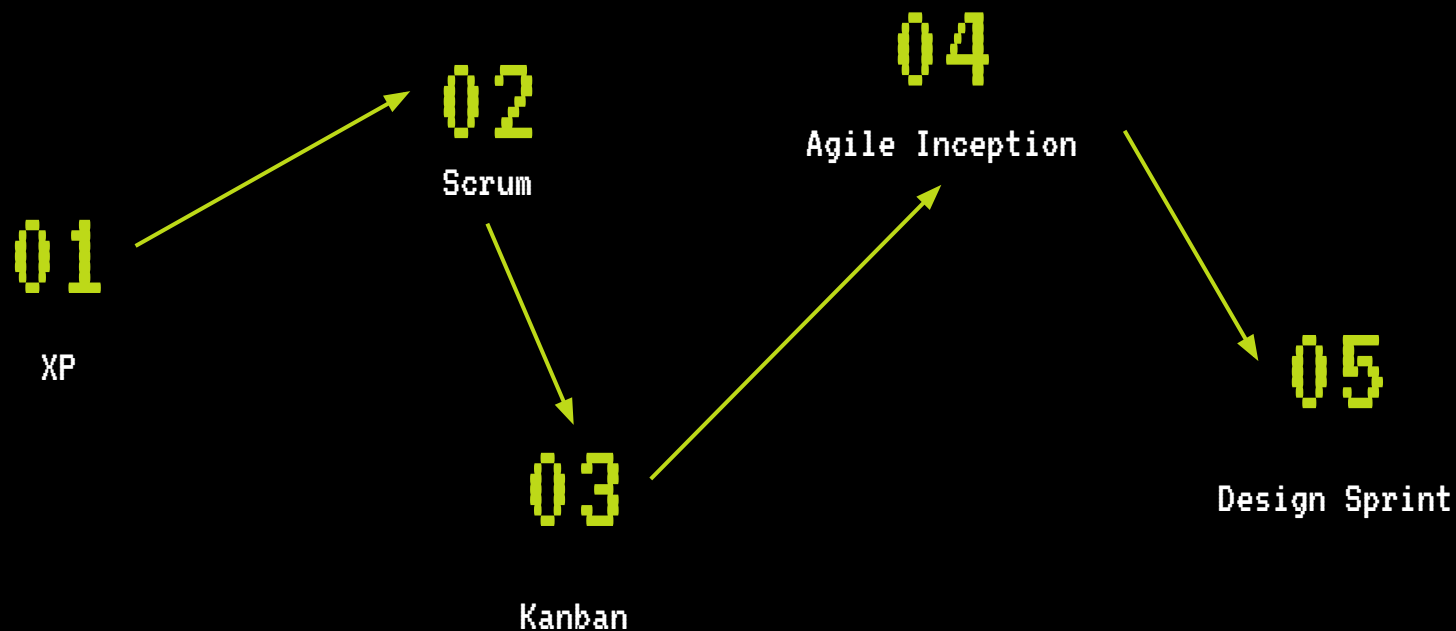
Multidisciplinary



# Phases

1. Reasons to carry out this project:
  - a. The reasons why we are here, define who our customers are and why we want to create the product.
  - b. How the product display would be: what will it have so that the customer wants to buy it just by seeing it.
  - c. We do not own the product.
2. We will have to think about aspects related to time, budget, technique:
  - a. Devise the solution
  - b. Future issues and mark the times.

# Topics





# Design Sprint

Design Sprint helps speed up the design process and provides valuable and relevant information that ensures design success.

This type of methodology helps teams work together to solve a specific problem and provide solutions that will be tested with users.

Considerably speeds up decision making and reduces project risk. The purpose is to build a testable prototype with future clients or users.



# Features



Fastest-Growing



User - Tests



Reduce risks



Exhausted team



Equitable  
contribution



# Phases

1. Investigate and Define: In this phase, the documentation resulting from the investigations must be provided as:
  - Empathy maps.
  - User Journey.
  - Interview.
  - Surveys.
  - SWOT analysis.

# Phases

2. Sketch: Each of the team members must design a solution to a problem. Basically you have to draw a quick solution on paper, without other factors affecting the result

# Phases

3. Determinate: In this phase a decision must be made about which idea (or ideas) are going to be carried out in the prototype phase. It is very important to decide how the prototype will be carried out to discover what problems could generate

# Phases

4. Prototype: In this phase, you begin to create a prototype of the product. UX and UI begin to design the prototype with High Definition, to which later the necessary animations will be introduced so that the basic functionalities that solve the problem can be understood.

You only have one day to complete this task, so at this point things get serious. At the same time that the prototype is made, the research or research team must specify the schedules for the tests or tests with users.

# Phases

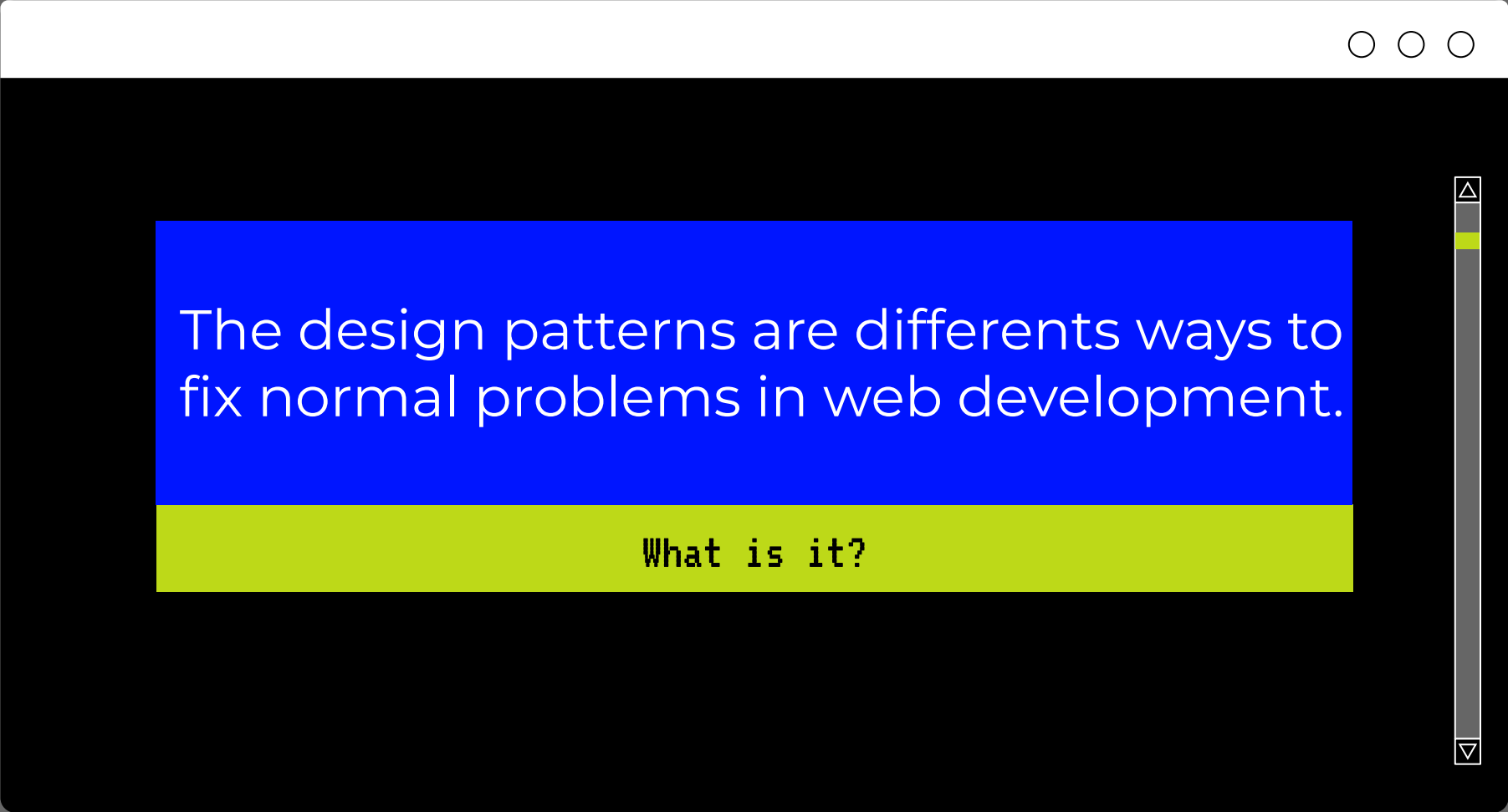
5. Validate: It is the last phase and the most important. Tests with Users are carried out. It will be necessary to gather up to a maximum of 20 users and a minimum of 6 to carry out the tests with the prototype.

03

# Design Patterns

Abstract Factory & Adapter.





The design patterns are different ways to  
fix normal problems in web development.

What is it?

# Topics

01

Abstract Factory  
& Adapter.



02

Other Patterns

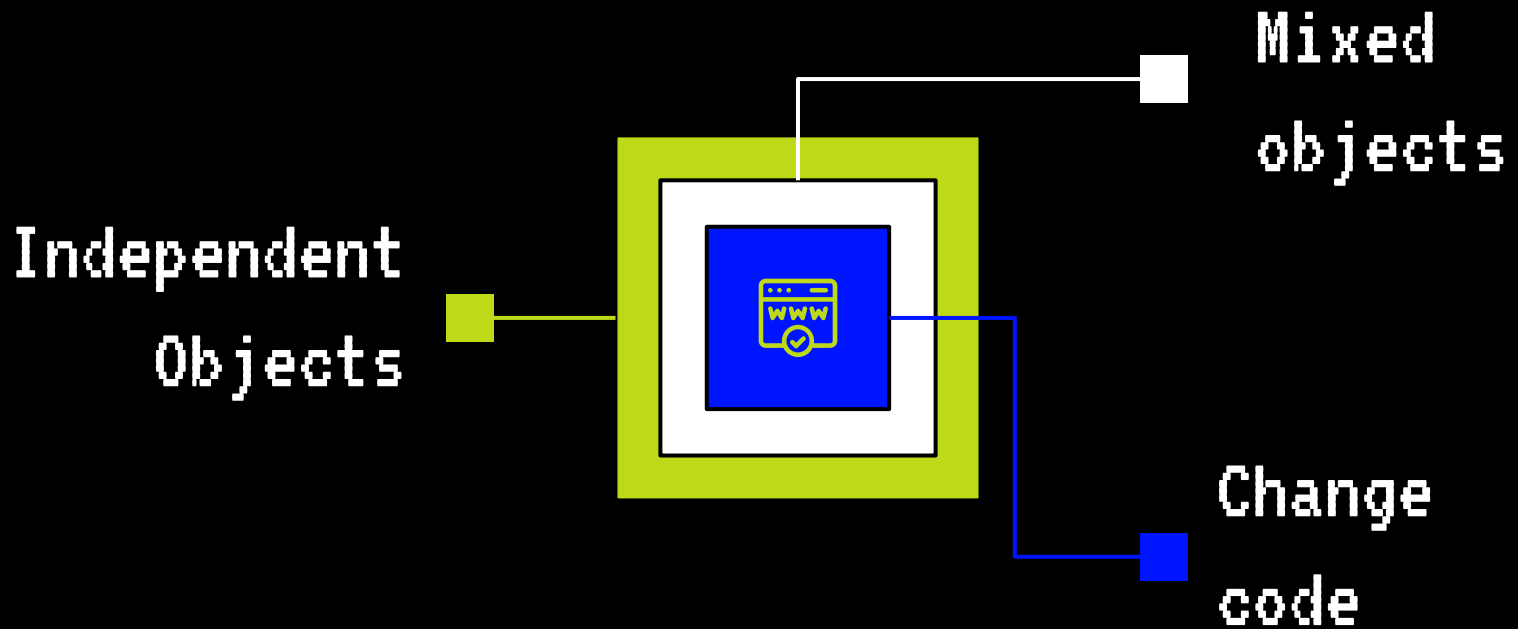




# Abstract Factory

Abstract Factory is a creational design pattern that gives us the option to create different objects from different families that are interrelated.

# DrawBacks



# How to apply



## Interfaces

Generic



## List methods

Object properties

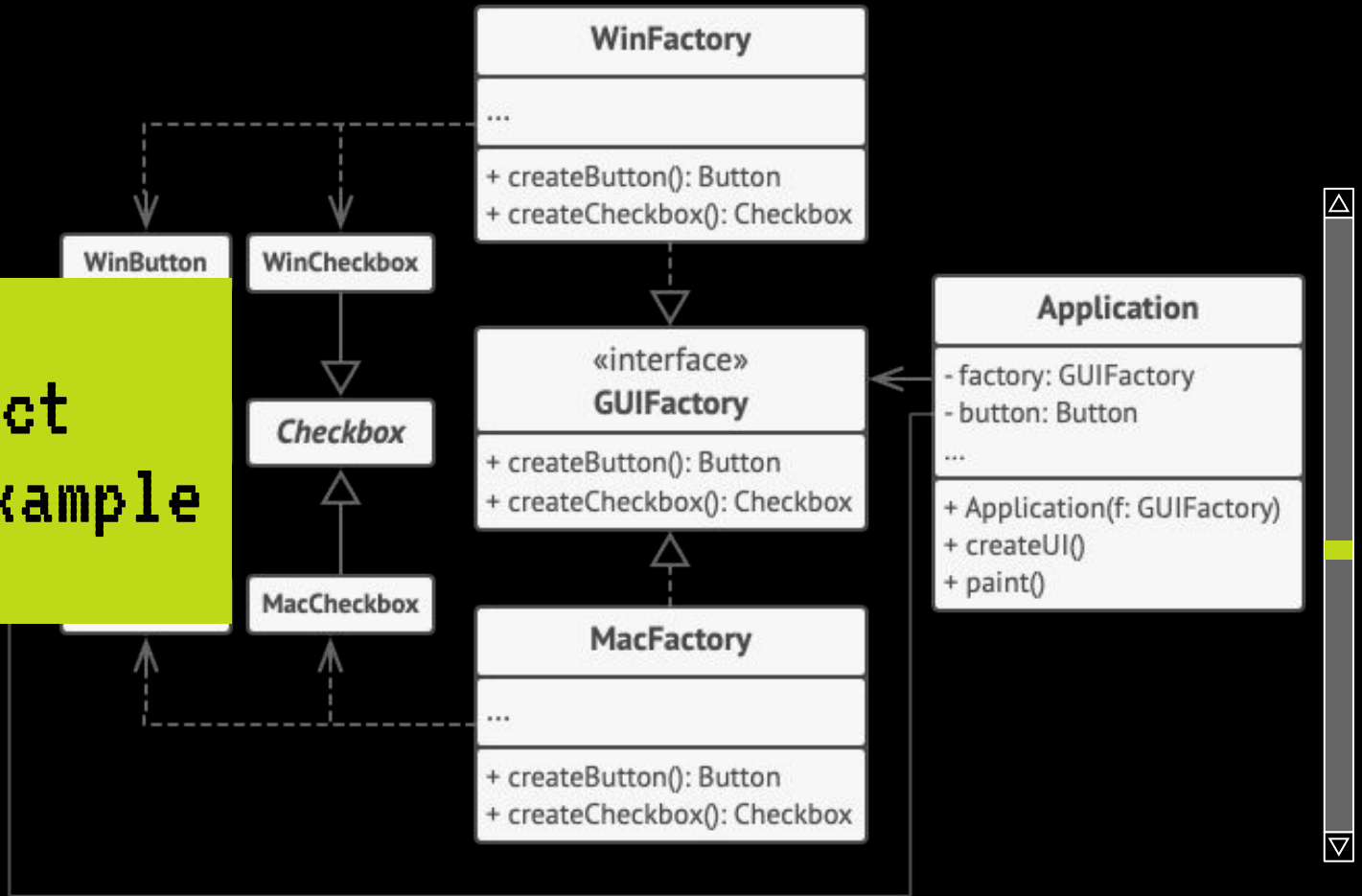


## Obj Interfaces

For each object



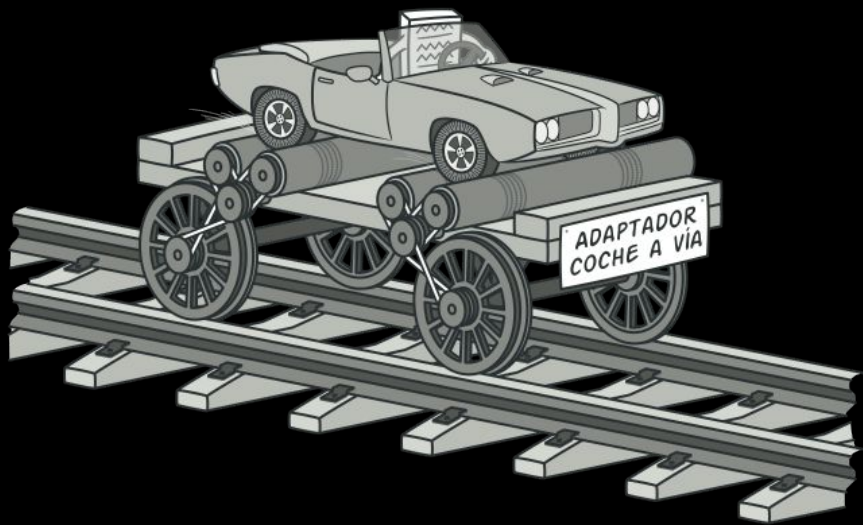
# Abstract Factory Example



# Uses

When your code needs to work with several families of related products, but you don't want it to depend on the specific classes of those products, because you either don't know about them beforehand or simply want to allow for future extensibility. However, this may tend to make the code more difficult.





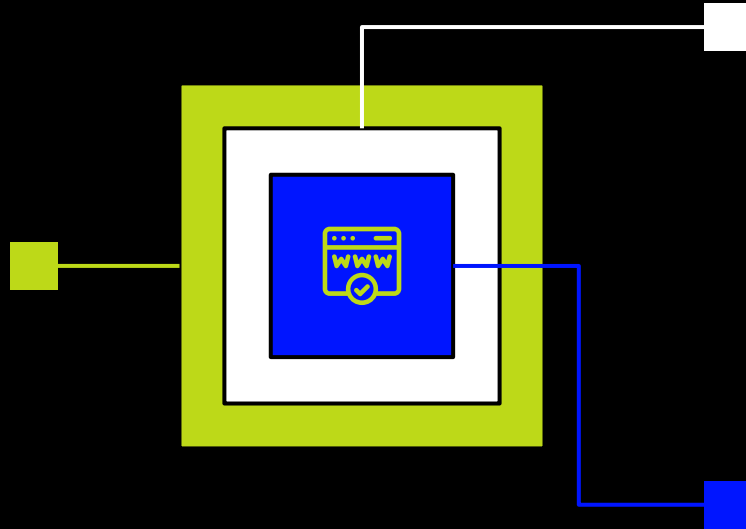
# Adapter

Adapter is a structural design pattern that allows collaboration between objects with incompatible interfaces, that is, we can mix objects that have nothing to do with each other.



# Pros

Incompatible  
interfaces

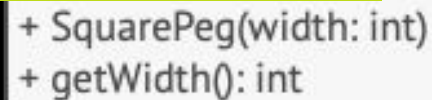
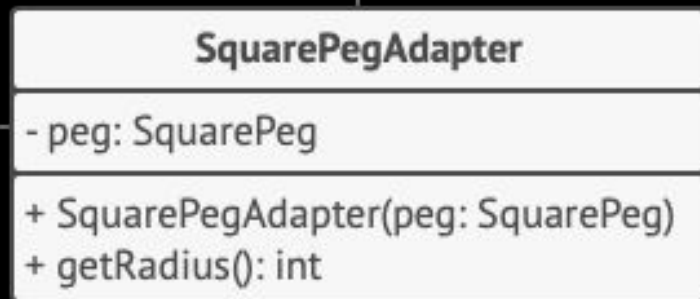
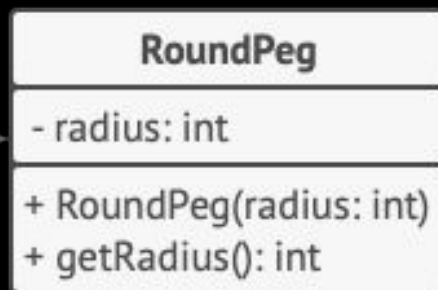
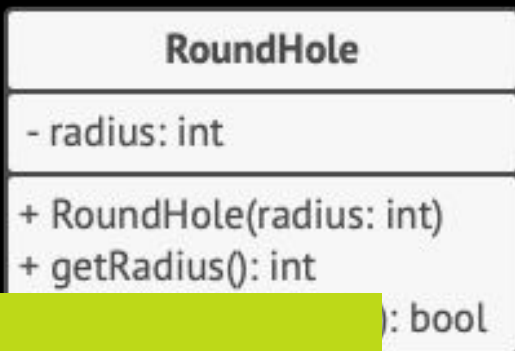


Can Mixed  
objects

Adapts  
anything



# Adapter Example



`return peg.getWidth() * sqrt(2) / 2`



# Topics

01

Abstract Factory  
& Adapter.



02

Other Patterns



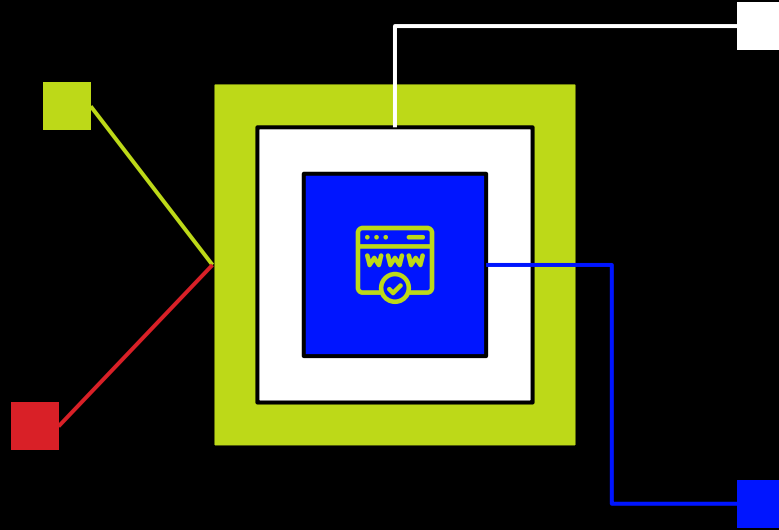
# Other Patterns

Facade  
(Mario)

Visitor  
(Mario)

Observer  
(Fran)

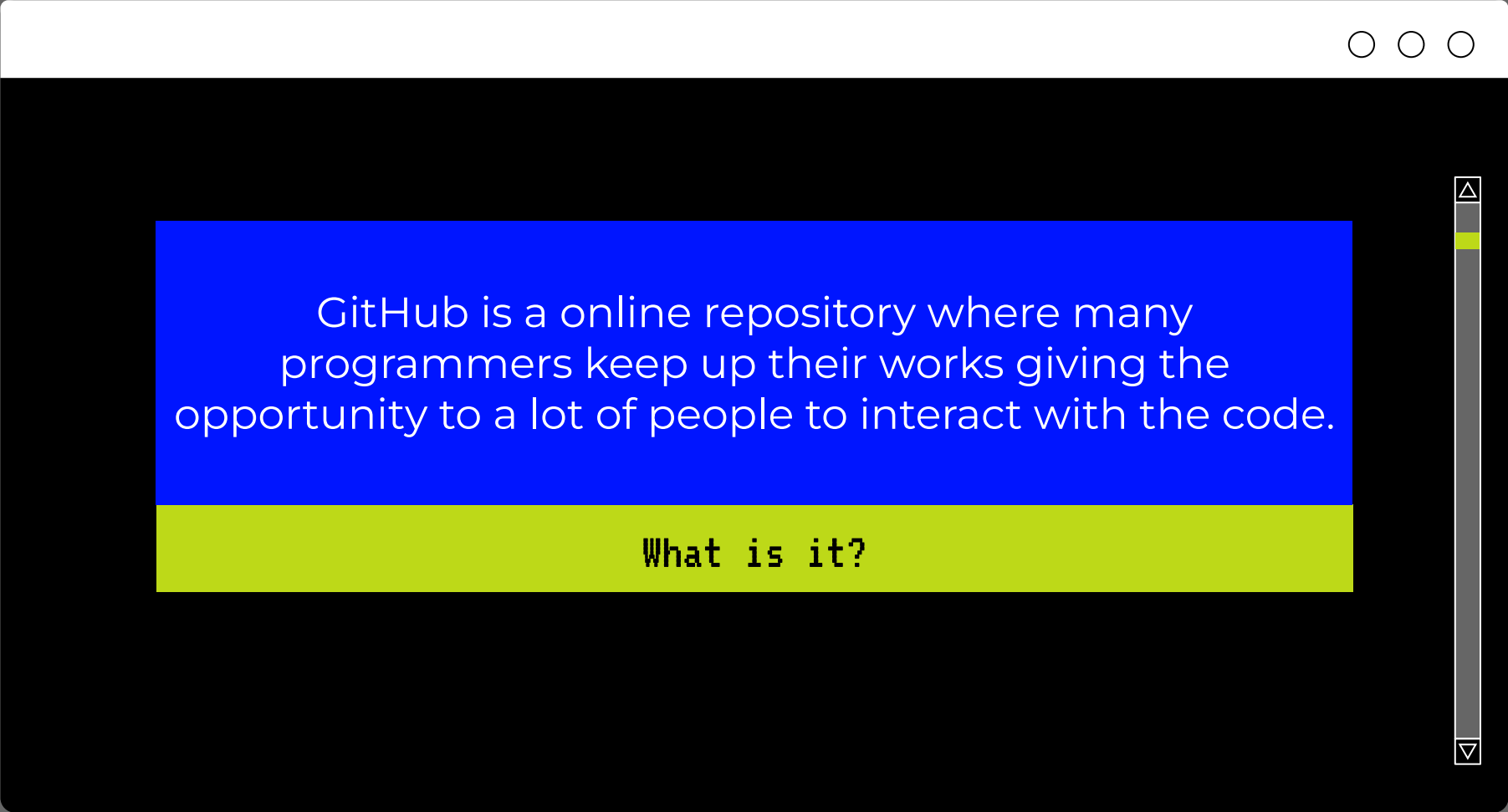
Command  
(Javi)



04

# GitHub

Uses, repositories, branches & tags.



GitHub is a online repository where many programmers keep up their works giving the opportunity to a lot of people to interact with the code.

What is it?



# Topics

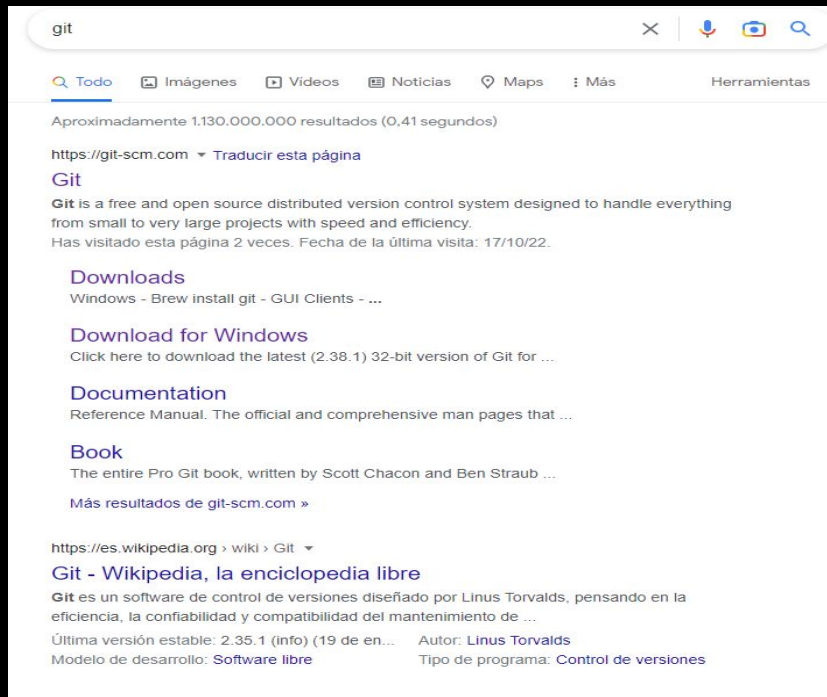
01

Exercises





# EO

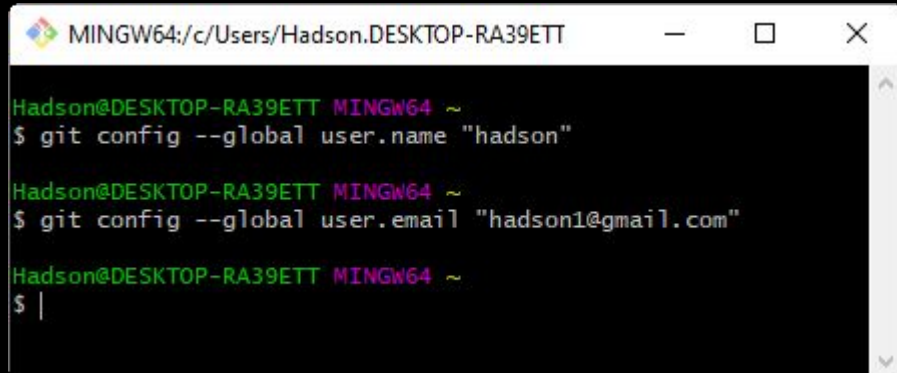


A screenshot of a Google search for "git". The search bar at the top shows "git" with a magnifying glass icon. Below the search bar, there are tabs for "Todo", "Imágenes", "Videos", "Noticias", "Maps", "Más", and "Herramientas". The search results show approximately 1,130,000,000 results in 0.41 seconds. The first result is from "https://git-scm.com" with the title "Git" and a description: "Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency." Below this, there are links for "Downloads", "Download for Windows", "Documentation", and "Book". The second result is from "https://es.wikipedia.org" with the title "Git - Wikipedia, la enciclopedia libre" and a description: "Git es un software de control de versiones diseñado por Linus Torvalds, pensando en la eficiencia, la confiabilidad y compatibilidad del mantenimiento de ...".

For download the git console, we must search on the navigator "git". After, we have to click on the first link and we would be able to download it.



# E0



```
MINGW64: c:/Users/Hadson.DESKTOP-RA39ETT

Hadson@DESKTOP-RA39ETT MINGW64 ~
$ git config --global user.name "hadson"

Hadson@DESKTOP-RA39ETT MINGW64 ~
$ git config --global user.email "hadson1@gmail.com"

Hadson@DESKTOP-RA39ETT MINGW64 ~
$ |
```

After we have downloaded git console, we must go at git bash and set the global configuration with two commands:

1. Git config - global user.name ""
2. Git config - global user.email ""

# E1

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub
$ mkdir E_GitHub

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub
$ cd E_GitHub/

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub
$ ls

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub
$ git init
Initialized empty Git repository in C:/Users/porta/Documents/manuel/DAW/ILERNA/g
itHub/E_GitHub/.git/
```

To create a local repository,  
through the git console, we must use  
the command “git init <repository  
name>”

# E1

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ ls
hp01.html hp02.html hp03.html

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
    hp01.html
    hp02.html
    hp03.html

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

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git add -A
warning: in the working copy of 'hp01.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'hp02.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'hp03.html', LF will be replaced by CRLF the next time Git touches it

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git commit -m "Archivos a\u00f1adidos. Subida1"
[master (root-commit) 4d27381] Archivos a\u00f1adidos. Subida1
3 files changed, 37 insertions(+)
 create mode 100644 hp01.html
 create mode 100644 hp02.html
 create mode 100644 hp03.html

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ |
```

Once our files are inserted, we use the following commands:

- `git add -A` → add changes from working area to staging area
- `git commit -m` → add staging area changes to repository
- `git status` → to check if the status of our repository has changed.

# E1

Within github we have 3 logical areas:

- Working copy
- Staging area
- Repository

When we add files to our repository, we are unknowingly adding them to the working copy. In order to pass it to the staging area we must use the `git add -A` command. to check the status of both we use `git diff`, but since we have not made any changes, they are exactly "same", nothing will appear. However, if we change the content of our files or add a new one and use `git diff` it will show us the changes.

# E1

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git diff

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ nano hp01.html

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   hp01.html

no changes added to commit (use "git add" and/or "git commit -a")

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git diff
warning: in the working copy of 'hp01.html', LF will be replaced by CRLF the next time Git touches it
diff --git a/hp01.html b/hp01.html
index 82d7d93..0666e8d 100644
--- a/hp01.html
+++ b/hp01.html
@@ -5,6 +5,7 @@
  </head>
  <body>
  <h1>Harry Porlotes y La Red Neuronal</h1>
+<p>Esto es un cambio para comprobar el git diff</p>
<p>El niño huérfano Harry vive con sus tíos, que lo tratan muy mal (le hacen utilizar Internet Noexplorer).</p>
<p>Harry tiene unas gafas redondas a lo John Lennon y una cicatriz de una manzana mordida en la frente.</p>
<p>Un día, aparece Juan Nieve, el del Muro, y le dice que él también puede ser un programador.

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ |
```

# E1

There is a way to undo a commit:

- `git reset` : If you want to keep the changes we write `git reset - -soft` and if we don't want to keep them `git reset - -hard`.

To undo an add it would be `git reset HEAD`

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git reset --soft

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   hp01.html

no changes added to commit (use "git add" and/or "git commit -a")

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git diff
warning: in the working copy of 'hp01.html', LF will be replaced by CRLF the next time Git touches it
diff --git a/hp01.html b/hp01.html
index 82d7d93..0666e8d 100644
--- a/hp01.html
+++ b/hp01.html
@@ -5,8 +5,7 @@
 </head>
 <body>
 <h1>Harry Porlotes y La Red Neuronal</h1>
+<p>Esto es un cambio para comprobar el git diff</p>
+<p>El niño Húdrfano Harry vive con sus tíos, que lo tratan muy mal (le hacen utilizar Internet Noexplorer).</p>
+<p>Harry tiene unas gafas redondas a lo John Lennon y una cicatriz de una manzana mordida en la frente.</p>
+<p>Un día, aparece Juan Nieve, el del Muro, y le dice que él también puede ser un programador.

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git reset --hard
HEAD is now at 4d27381 Archivos añadidos. Subida1

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git status
On branch master
nothing to commit, working tree clean

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$
```

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git reset HEAD
Unstaged changes after reset:
M    hp01.html
```

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
    modified:   hp01.html
```

no changes added to commit (use "git add" and/or "git commit -a")

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$
```

# E1

To show the commits made, we must use the git  
log command:

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git log
commit 043b89f55a3dee89d8a8b6606ae23ffbc81eacda (HEAD -> master)
Author: Manuel Moya <manuel.moyavadillo2@gmail.com>
Date: Sat Oct 29 14:11:06 2022 +0200
```

subida 1.

```
commit 4d273812220bac33d19532f33e8a8346d7887c8d
Author: Manuel Moya <manuel.moyavadillo2@gmail.com>
Date: Sat Oct 29 13:10:12 2022 +0200
```

Archivos añadidos. Subida1



# E1

To create a tag we will use the command `git tag -a <labelname> -m "message"`. To list all tags we will use `git tag` and to remove tags `git tag --delete <tagName>`.

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git tag -a Trilogía -m "Esta es la etiqueta Trilogía"
```

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ gi tag
bash: gi: command not found
```

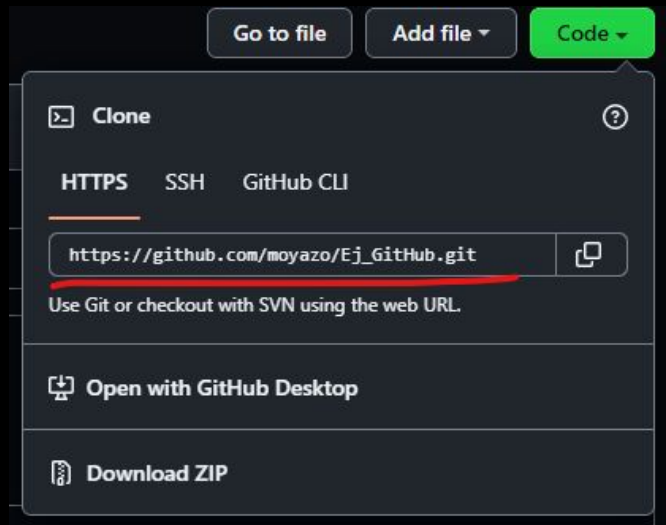
```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git tag
Trilogía
```

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git tag --delete Trilogía
Deleted tag 'Trilogía' (was 3792569)
```

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ git tag
```

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/E_GitHub (master)
$ |
```

# E2



To clone a repository from your github account you must use the git clone URL command.

# E2

Go to file Add file ▾ Code ▾

Clone ?

HTTPS

SSH

GitHub CLI

https://github.com/moyazo/Ej\_GitHub.git

📋

Use Git or checkout with SVN using the web URL.

🖱️

 Open with GitHub Desktop

📄

 Download ZIP

To clone a repository from your github account you must use the git clone URL command.

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub
$ git clone https://github.com/moyazo/Ej_GitHub.git
Cloning into 'Ej_GitHub'...
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Receiving objects: 100% (4/4), done.

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub
$ |
```

# E2

```
porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (main)
$ git branch NBranch

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (main)
$ git branch
NBranch
* main

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (main)
$ git branch -m MBranch

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (MBranch)
$ git branch
* MBranch
  NBranch

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (MBranch)
$ git checkout NBranch
Switched to branch 'NBranch'

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (NBranch)
$ git branch -D NBranch
error: Cannot delete branch 'NBranch' checked out at 'C:/Users/porta/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub'

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (NBranch)
$ git checkout MBranch
Switched to branch 'MBranch'
Your branch is up to date with 'origin/main'.

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (MBranch)
$ git branch -D MBranch
error: Cannot delete branch 'MBranch' checked out at 'C:/Users/porta/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub'

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (MBranch)
$ git checkout NBranch
Switched to branch 'NBranch'

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (NBranch)
$ git branch -D MBranch
Deleted branch MBranch (was 0ad5586).

porta@DESKTOP-NR6JE9F MINGW64 ~/Documents/manuel/DAW/ILERNA/gitHub/Ej_GitHub (NBranch)
$ |
```

To create branches, we use `git branch <branch Name>`. To switch branches we use `git checkout <branch Name>`. To list the branches and see which one we're on `git branch` and if we want to rename the branch `git branch -m <newName>`.

To remove branches we use `git branch -D <branch Name>`. **YOU CANNOT DELETE THE BRANCH YOU ARE ON.**

# E3

To work as a couple we must share the repository.

Next, we have to create a new branch where we will add our files. Each will do the basic iteration: `git add -A`, `git commit -m ""` and `git push`. However, the person doing the push later, you'll get a `fatal: the current branch has new commits that are not yet merged` error that you'll need to fix using `git pull` to add the changes your partner made.

To incorporate two different branches we use `git merge`. It must be used from the main branch to merge both.

If we don't do `git pull`, we will get an error. This error happens when we haven't incorporated our partner's changes and we try to do a `git push`.

# E3

```
DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (hp042)
$ git add -A

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (hp042)
$ git commit -m "First commit."
[hp042 5a3a112] First commit.
Committer: DAW <DAW@ILERNA.SEVILLA>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

1 file changed, 9 insertions(+)
create mode 100644 hp04.html

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (hp042)
$ git checkout main
Switched to branch 'main'
Your branch is up to date with 'origin/main'.

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (main)
$ git merge hp042
Updating f60ff92..5a3a112
Fast-forward
 hp04.html | 9 ++++++++
 1 file changed, 9 insertions(+)
 create mode 100644 hp04.html

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (main)
$ git add -A

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (main)
$ git commit -m "First commit"
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

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (main)
$ git push
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 6 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 552 bytes | 552.00 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/marioariza/UD2-DWEC-E2.git
 f60ff92..5a3a112 main -> main

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/UD2-DWEC-E2 (main)
$
```

# E4

```
MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ nano hp05.html

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ nano hp06.html

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ nano hp07.html

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ ls
LICENSE README.md hp01.html hp02.html hp03.html hp05.html hp06.html hp07.html

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ git add -A
warning: in the working copy of 'hp05.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'hp06.html', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'hp07.html', LF will be replaced by CRLF the next time Git touches it

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ git commit -m "hp05- hp07 creados"
[main 5407bf5] hp05- hp07 creados
Committer: DAW <DAW@ILERNA.SEVILLA>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

3 files changed, 4 insertions(+)
create mode 100644 hp05.html
create mode 100644 hp06.html
create mode 100644 hp07.html

MAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
└ git push
Enumerating objects: 6, done.
Counting objects: 100% (6/6), done.
Delta compression using up to 6 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (5/5), 392 bytes | 392.00 KiB/s, done.
Total 5 (delta 1), reused 0 (delta 0), pack-reused 0
Remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/moyazo/Ej_GitHub.git
   0ad5586..5407bf5  main -> main
```

Para añadir nuestros archivos a github debemos usar: `git add -A`, `git commit -m ""` y `git push`.

# E4

## Releases

No releases published  
[Create a new release](#)

We weren't able to create the release for you. Make sure you have a valid tag.

moyazo/Ej\_GitHub [Public](#)

[Code](#) [Issues](#) [Pull requests](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

Releases Tags

[Choose a tag](#) [Target: main](#)

Choose an existing tag, or create a new tag when you publish this release.

Prueba de release

Write Preview

H B I [List](#) [Code](#) [Link](#) [Image](#) [Table](#) [Quote](#) [Undo](#) [Redo](#)

[Generate release notes](#)

Esto es para un release para el E4 de desarrollo en entorno cliente

Attach files by dragging & dropping, selecting or pasting them.

↓ Attach binaries by dropping them here or selecting them.

☐ Set as a pre-release  
This release will be labelled as non-production ready

[Publish release](#) [Save draft](#)

To create a release we must go to our repository. However, we must assign a tag to it so we will have to create one. Basically, a release saves us the version or state of a program that we want to save so as not to lose it.

We will get a message warning us that we must create a tag for the release.



# E4

## Prueba de release

Latest

Compare



moyazo released this 4 minutes ago



Tag\_Prueba



5407bf5

Esto es para un release para el E4 de desarrollo en entorno cliente

### Assets 2

Source code (zip)

11 minutes ago

Source code (tar.gz)

11 minutes ago



We assign a tag and we will have the zip available with the version of the program



Tag\_Prueba



# E4

## Diferencias Release - Tag

Una release se crea a partir de un tag existente y expone las notas de la versión y los enlaces para descargar el software o el código fuente de GitHub.

Un tag es un puntero a un commit específico. Este puntero puede estar sobrecargado con alguna información adicional (identidad del creador de la etiqueta, una descripción, una firma GPG, ...).

# E4

An Issue is a note in a repository that tries to draw attention to a problem. It can be a bug to fix, a request to add a new option or feature, a question to clarify something that is not properly clarified, or many other different things. On GitHub you can tag, search, or assign Issues, making managing an active project easier.

# E5

```
DAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
$ nano stash.txt

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
$ 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)
    stash.txt

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

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
$ git add -A
warning: in the working copy of 'stash.txt', LF will be replaced by CRLF the next time Git touches it

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
$ 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:   stash.txt

DAW@PC-S1287 MINGW64 ~/Documents/Manuel/Ej_GitHub (main)
$ git stash
Saved working directory and index state WIP on main: 5407bf5 hp05- hp07 creados
```

To use git stash, we must create a new file or modify another. When we make changes to it we use git bash to save those changes temporarily, so git status won't detect the changes:


# E6

## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner \*

Repository name \*

 moyazo ▾

/

Great repository names are short and memorable. Need inspiration? How about [sturdy-dollop](#)?

Description (optional)



 Public

Anyone on the internet can see this repository. You choose who can commit.



 Private

You choose who can see and commit to this repository.

Initialize this repository with:

Skip this step if you're importing an existing repository.

☐ Add a README file

This is where you can write a long description for your project. [Learn more.](#)

Add .gitignore

Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

Choose a license

A license tells others what they can and can't do with your code. [Learn more.](#)

License: None ▾


① You are creating a public repository in your personal account.

Create repository

Markdown is a simple and  
easy-to-write type of  
plain text code  
documentation. It can  
also be used to document  
and point out important  
points to keep in mind  
when reading program  
code.

# E6

Quick setup — if you've done this kind of thing before

 Set up in Desktop

or

HTTPS

SSH

<https://github.com/moyazo/wetwetwe.git>



Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

If we already have our repository, but we  
have forgotten to add the Read.me, it will  
give us the recommendation to create a  
Read.me



END