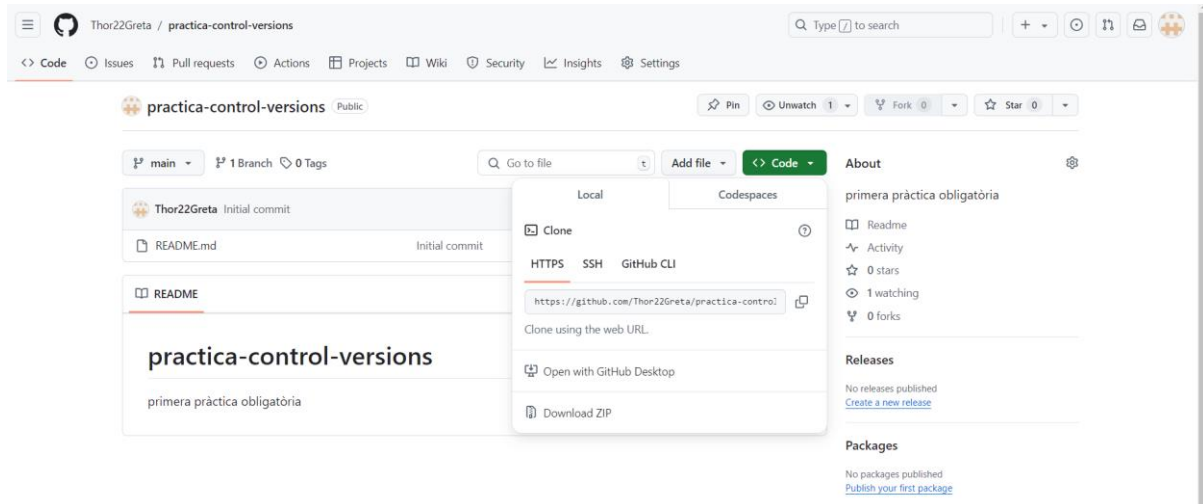


# Pràctica 1

## Sistemes de control de versions

Cree un repositori a GitHub anomena't "practica-control-version":



He fet git clone <https://github.com/Thor22Greta/practica-control-versions.git>

Implemente l'estructura inicial del projecte utilitzant el boilerplate del link:

```
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions (develop)
$ npx create-html5-boilerplate new-site
- Downloading html5-boilerplate version 'latest' to C:\Users\sheil\practica-cont
rol-versions\new-site
? Select language English (en)
- Downloading html5-boilerplate version 'latest' to C:\Users\sheil\practica-cont
rol-versions\new-site
✓ html5-boilerplate@latest copied to C:\Users\sheil\practica-control-versions\new-site in 1.41 seconds . Have fun!

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions (develop)
$ cd new-site

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ npm install

added 353 packages, and audited 354 packages in 15s

69 packages are looking for funding
  run `npm fund` for details

3 low severity vulnerabilities

Some issues need review, and may require choosing
a different dependency.

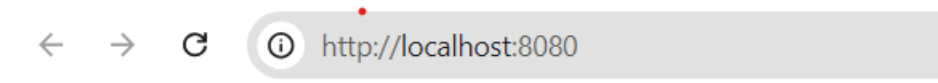
Run `npm audit` for details.

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ npm run start

> @0.0.1 start
> webpack serve --open --config webpack.config.dev.js

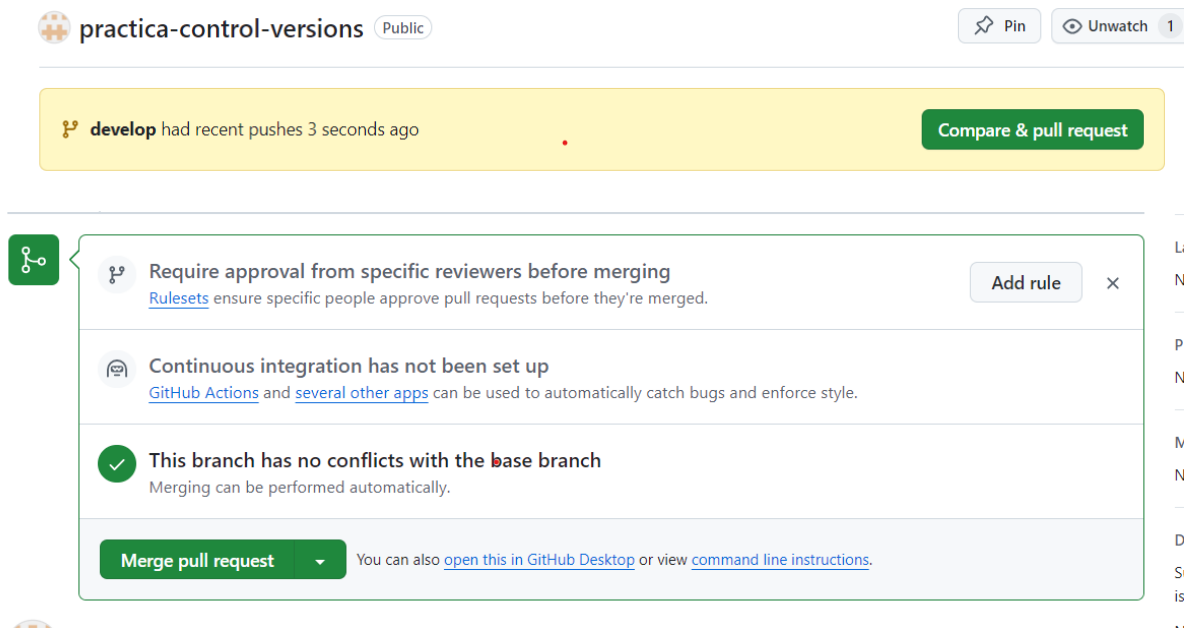
<i> [webpack-dev-server] Project is running at:
<i> [webpack-dev-server] Loopback: http://localhost:8080/, http://\[::1\]:8080/
<i> [webpack-dev-server] On Your Network (IPv4): http://192.168.1.57:8080/
<i> [webpack-dev-server] Content not from webpack is served from './' directory
<i> [webpack-dev-middleware] wait until bundle finished: /
asset ./js/app.js 640 KiB [emitted] (name: app)
runtime modules 27.4 KiB 12 modules
modules by path ./node_modules/ 185 KiB
  modules by path ./node_modules/webpack-dev-server/client/ 81.9 KiB 17 modules
  modules by path ./node_modules/webpack/hot/*.js 5.17 KiB
    ./node_modules/webpack/hot/dev-server.js 1.94 KiB [built] [code generated]
    ./node_modules/webpack/hot/log.js 1.73 KiB [built] [code generated]
  + 2 modules
modules by path ./node_modules/html-entities/lib/*.js 78.9 KiB
  ./node_modules/html-entities/lib/index.js 4.84 KiB [built] [code generated]
  ./node_modules/html-entities/lib/named-references.js 73.1 KiB [built] [code generated]
  ./node_modules/html-entities/lib/numeric-unicode-map.js 389 bytes [built] [code generated]
  ./node_modules/html-entities/lib/surrogate-pairs.js 583 bytes [built] [code generated]
  ./node_modules/ansi-html-community/index.js 4.16 KiB [built] [code generated]
  ./node_modules/events/events.js 14.5 KiB [built] [code generated]
./js/app.js 1 bytes [built] [code generated]
webpack 5.95.0 compiled successfully in 7294 ms
```

Aquesta és la primera vista que tenim:



Hello world! This is HTML5 Boilerplate.

He fet “git add .” i a continuació: “git commit -m "Usuari 1: Estructura inicial projecte ""”.  
I per últim, git push origin develop.



Faig merge.

Aquesta és la vista inicial de la web després de crear la seua estructura:



Modifique l'index.html, a continuació afegisc els canvis, faig commit i push:

```
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git branch
* develop
  main

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git add .
warning: in the working copy of 'new-site/index.html', LF will be replaced by CRLF the next time Git touches it

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git commit -m "Usuari 1: Modificació index.html"
[develop 80fcd8c] Usuari 1: Modificació index.html
1 file changed, 37 insertions(+), 9 deletions(-)

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git push origin develop
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 1.05 KiB | 1.05 MiB/s, done.
Total 4 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Thor22Greta/practica-control-versions.git
3518ebe..80fcd8c develop -> develop
```

Accepte modificacions:

```
26 + <!-- Capçalera -->
27 + <header>
28 + <h1>Curs Web: Interaccions amb JavaScript i HTML</h1>
29 + </header>
30 +
31 + <!-- Barra de navegació -->
32 + <nav>
33 + <ul>
34 + <li><a href="#">Home</a></li>
35 + <li><a href="#">Modificar contenido HTML</a></li>
36 + <li><a href="#">Modificar estilos CSS</a></li>
37 + <li><a href="#">Modificar atributos HTML</a></li>
38 + </ul>
39 + </nav>
40 +
41 + <!-- Part central -->
42 + <main>
43 + <section id="home">
44 + <h2>Benvinguts al curs!!</h2>
45 + <p>Breu descripció del curs: En aquest curs aprendreu a manipular HTML amb JavaScript per crear interaccions
46 + dinàmiques en una pàgina web.
47 + </p>
48 + </section>
49 + </main>
50 +
51 + <!-- Footer -->
52 + <footer>
53 + <p>Footer de la pàgina </p>
54 + <p> 2024 - Curs Web: JavaScript i HTML </p>
55 + </footer>
```

Des de l'usuari 2 es fan els canvis que li pertocuen. Faig “git add, git commit i git push”:

```

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git checkout -b feature/contingutHTML
Switched to a new branch 'feature/contingutHTML'

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/contingutHTML)
$ git add index.html
warning: in the working copy of 'new-site/index.html', LF will be replaced by CRLF the next time Git touches it

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/contingutHTML)
$ git commit -m "Usuari 2: feature afegir contingut HTML"
[feature/contingutHTML 1fe776c] Usuari 2: feature afegir contingut HTML
1 file changed, 12 insertions(+)

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/contingutHTML)
$ git push origin feature/contingutHTML
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 761 bytes | 761.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
remote:
remote: Create a pull request for 'feature/contingutHTML' on GitHub by visiting:
remote:   https://github.com/Thor22Greta/practica-control-versions/pull/new/feature/contingutHTML
remote:
To https://github.com/Thor22Greta/practica-control-versions.git
 * [new branch]      feature/contingutHTML -> feature/contingutHTML

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/contingutHTML)
$

```

feature/contingutHTML had recent pushes 1 minute ago

Compare & pull request



**Require approval from specific reviewers before merging**  
[Rulesets](#) ensure specific people approve pull requests before they're merged.

Add rule



**Continuous integration has not been set up**  
[GitHub Actions](#) and [several other apps](#) can be used to automatically catch bugs and enforce style.



**This branch has no conflicts with the base branch**  
Merging can be performed automatically.

Merge pull request

You can also [open this in GitHub Desktop](#) or view [command line instructions](#).

Faré els merges després tots junts a la branca develop.

Aquest és el segon feature que ha de crear l'usuari 2. Faig "git add, git commit i git push":

```

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git checkout -b feature/atributsHTML
Switched to a new branch 'feature/atributsHTML'

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/atributsHTML)
$ git add index.html

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/atributsHTML)
$ git commit -m "Usuari 2: feature afegir atributs HTML"
[feature/atributsHTML 92108d0] Usuari 2: feature afegir atributs HTML
1 file changed, 23 insertions(+)

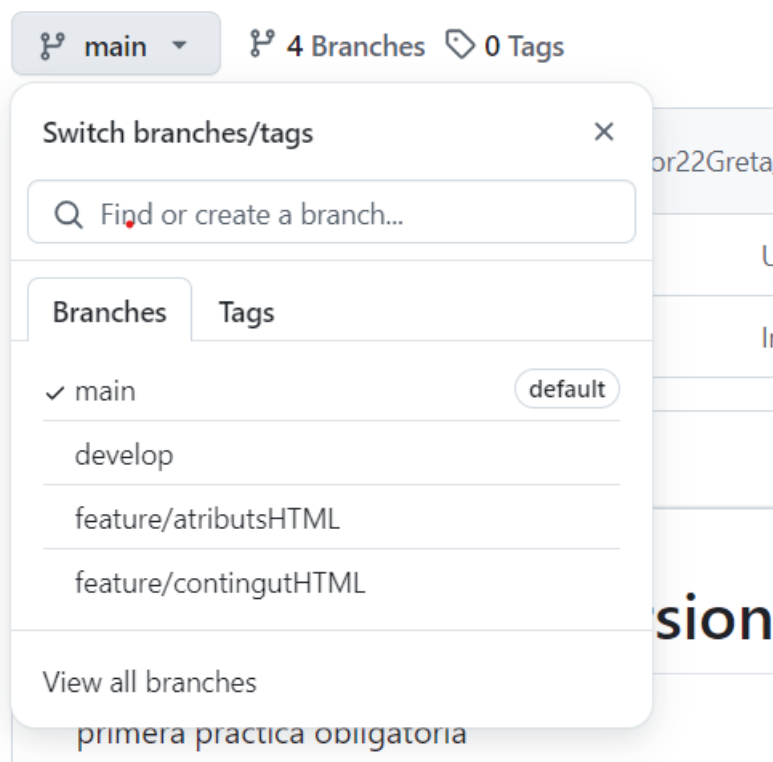
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/atributsHTML)
$ git push origin feature/atributsHTML
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 942 bytes | 942.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
remote:
remote: Create a pull request for 'feature/atributsHTML' on GitHub by visiting:
remote:   https://github.com/Thor22Greta/practica-control-versions/pull/new/feature/atributsHTML
remote:
To https://github.com/Thor22Greta/practica-control-versions.git
 * [new branch]      feature/atributsHTML -> feature/atributsHTML

```

feature/atributsHTML had recent pushes less than a minute ago

[Compare & pull request](#)

Mostre totes les branques creades al projecte:



Amb l'usuari 3 cree la branch de feature/estilsCSS. Faig “git add, git commit i git push”:

```


sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git checkout -b feature/estilsCSS
Switched to a new branch 'feature/estilsCSS'

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/estilsCSS)
$ git add index.html

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/estilsCSS)
$ git commit -m "Usuari 3: feature afegir estils CSS"
[feature/estilsCSS e8ade6d] Usuari 3: feature afegir estils CSS
1 file changed, 17 insertions(+), 1 deletion(-)

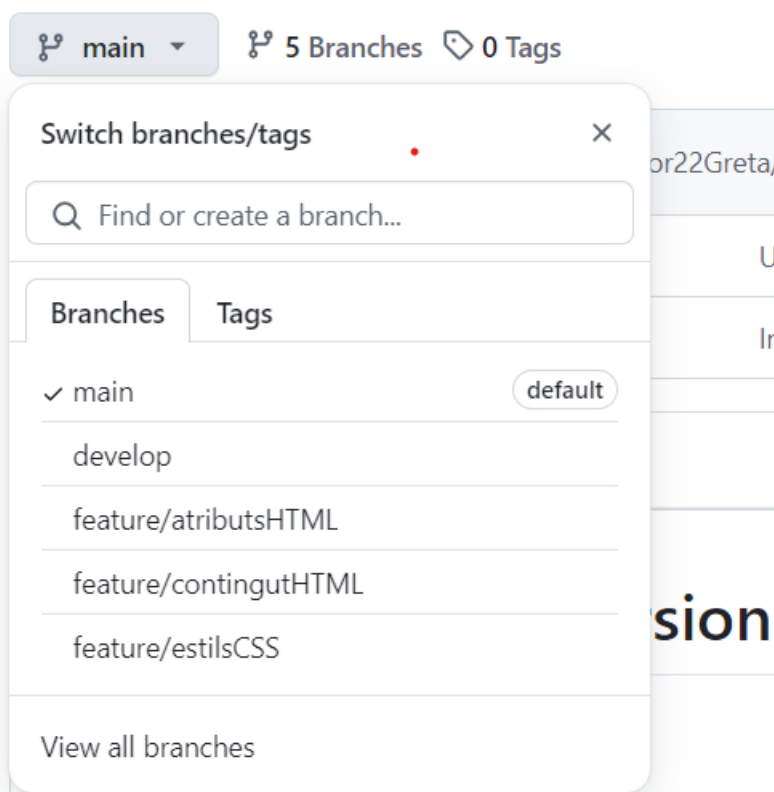
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/estilsCSS)
$ git push origin feature/estilsCSS
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 8 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 770 bytes | 770.00 KiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
remote:
remote: Create a pull request for 'feature/estilsCSS' on GitHub by visiting:
remote:   https://github.com/Thor22Greta/practica-control-versions/pull/new/feature/estilsCSS
remote:
remote: To https://github.com/Thor22Greta/practica-control-versions.git
* [new branch]   feature/estilsCSS -> feature/estilsCSS

```

 **feature/estilsCSS** had recent pushes 2 seconds ago

[Compare & pull request](#)

Torne a mostrar les branques per a comprovar la creació d'una nova:



Torne a la branca “develop” per a fer les “merge” de les 3 branques “feature”.

```

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (feature/estilsCSS)
$ git checkout develop
Switched to branch 'develop'

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git status
On branch develop
nothing to commit, working tree clean

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git merge feature/contingutHTML
Updating 80fcd8c..1fe776c
Fast-forward
 new-site/index.html | 12 ++++++++
 1 file changed, 12 insertions(+)

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git merge feature/atributsHTML
merge: feature/atributsHTML - not something we can merge

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git merge feature/atributsHTML
Auto-merging new-site/index.html
CONFLICT (content): Merge conflict in new-site/index.html
Automatic merge failed; fix conflicts and then commit the result.

```

He de resoldre els conflictes a cada merge:

```

48 |
49 | Acceptar cambio actual | Aceptar cambio entrante | Aceptar ambos cambios | Comparar cambios
50 | <<<<<< HEAD (Cambio actual)
51 | <!-- Modificar contenido HTML -->
52 | <section id="modificar-contenido-html">
53 |   <h2>Modificar Contenido HTML</h2>
54 |   <p id="demo">JavaScript pot canviar el contingut d'aquest paràgraf.</p>
55 |   <button type="button" onclick="document.getElementById('demo').innerHTML = 'Hola JavaScript!'">Fes clic per canviar el contingut</button>
56 |   <h3>Explicació:</h3>
57 |   <p>
58 |     Aquest exemple utilitza JavaScript per canviar el contingut d'un element HTML quan es fa clic en un botó. Utilitzem la funció
59 |     <code>getElementById()</code> per seleccionar l'element amb l'ID "demo" i després modificar el seu contingut.
60 |   </p>
61 | </section>
62 | <!-- Modificar atributos HTML -->
63 | <section id="modificar-atributos-html">
64 |   <h2>Modificar Atributos HTML</h2>
65 |   <p>Aquest és un enllaç: <a id="myLink" href="https://www.google.com">Visita Google</a></p>
66 |   <button type="button" onclick="changeLink()">
67 |     Canviar l'atribut i el text de l'enllaç
68 |   </button>
69 |   <h3>Explicació:</h3>
70 |   <p>
71 |     En aquest exemple, utilitzem JavaScript per canviar el valor de l'atribut <code>href</code> d'un enllaç HTML i
72 |     el seu text quan es fa clic en un botó.
73 |     La funció <code>setAttribute()</code> permet modificar qualsevol atribut d'un element HTML, i la propietat
74 |     <code>innerHTML</code> permet modificar el text visible d'un element.
75 |   </p>
76 | </section>
77 | >>>>>> feature/atributsHTML (Cambio entrante)

```

Una vegada resolts, he de fer: “git add i git commit”.



```

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop|MERGING)
$ git add index.html

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop|MERGING)
$ git commit -m "Usuari 3: fix resolt conflicte atributs HTML"
[develop f7caed8] Usuari 3: fix resolt conflicte atributs HTML

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git merge feature/estilsCSS
Auto-merging new-site/index.html
CONFLICT (content): Merge conflict in new-site/index.html
Automatic merge failed; fix conflicts and then commit the result.

```

Continue amb la resolució de conflictes:

```

Acceptar cambio actual | Acceptar cambio entrante | Acceptar ambos cambios | Comparar cambios
<<<<<< HEAD (Cambio actual)
<!-- Modificar contenido HTML -->
<section id="modificar-contenido-html">
  <h2>Modificar Contenido HTML</h2>
  <p id="demo">JavaScript pot canviar el contingut d'aquest paràgraf.</p>
  <button type="button" onclick='document.getElementById("demo").innerHTML = "Hola JavaScript!'">Fes clic per canviar el contingut</button>

  <h3>Explicació:</h3>
  <p>
    Aquest exemple utilitza JavaScript per canviar el contingut d'un element HTML quan es fa clic en un botó. Utilitzem la funció
    <code>getElementById()</code> per seleccionar l'element amb l'ID "demo" i després modificar el seu contingut.
  </p>

<!-- Modificar atributos HTML -->
<section id="modificar-atributos-html">
  <h2>Modificar Atributos HTML</h2>
  <p>Aquest és un enllaç: <a id="myLink" href="https://www.google.com">Visita Google</a></p>
  <button type="button" onclick='changeLink()'>
    Canviar l'atribut i el text de l'enllaç
  </button>

=====
<!-- Modificar estilos CSS -->
<section id="modificar-estilos-css">
  <h2>Modificar Estilos CSS</h2>
  <p>Aquest és un exemple de com JavaScript pot canviar els estils d'un element HTML:</p>

  <p id="demo">JavaScript pot canviar el style d'un element HTML.</p>
  <button type="button" onclick="document.getElementById('demo').style.fontSize='35px'">
    Canvia el tamany de la font
  </button>
>>>>>> feature/estilsCSS (Cambio entrante)
</button>

```

Després de fer merge de les tres features que tenia creades, he fet “git checkout main” i “git merge develop”. A continuació m’ha donat error per no fer un pull abans.

He fet un pull i després “git push origin develop”.

```
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (main)
$ git tag -a v1.0 -m "Release v1.0: Inclou les noves funcionalitats"

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (main)
$ git push origin main
To https://github.com/Thor22Greta/practica-control-versions.git
! [rejected]        main -> main (fetch first)
error: failed to push some refs to 'https://github.com/Thor22Greta/practica-control-versions.git'
hint: Updates were rejected because the remote contains work that you do not
hint: have locally. This is usually caused by another repository pushing to
hint: the same ref. If you want to integrate the remote changes, use
hint: 'git pull' before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (main)
$ git checkout develop
Switched to branch 'develop'

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ 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), 907 bytes | 151.00 KiB/s, done.
From https://github.com/Thor22Greta/practica-control-versions
 * branch                main       -> FETCH_HEAD
   bf208a4..e4583e7      main       -> origin/main
Merge made by the 'ort' strategy.

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git push origin develop
Enumerating objects: 21, done.
Counting objects: 100% (21/21), done.
Delta compression using up to 8 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (9/9), 1.56 KiB | 1.56 MiB/s, done.
Total 9 (delta 4), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (4/4), completed with 2 local objects.
To https://github.com/Thor22Greta/practica-control-versions.git
   80fcd8c..fd816d3  develop -> develop

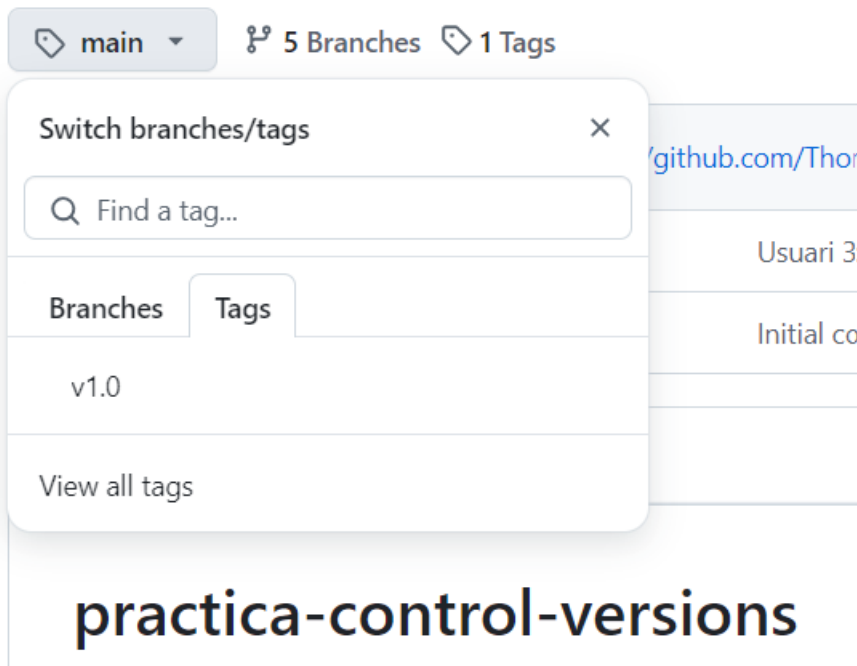
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git checkout main
Switched to branch 'main'
Your branch and 'origin/main' have diverged,
and have 6 and 1 different commits each, respectively.
(use "git pull" if you want to integrate the remote branch with yours)

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (main)
$ git pull origin main
From https://github.com/Thor22Greta/practica-control-versions
 * branch                main       -> FETCH_HEAD
Merge made by the 'ort' strategy.
```

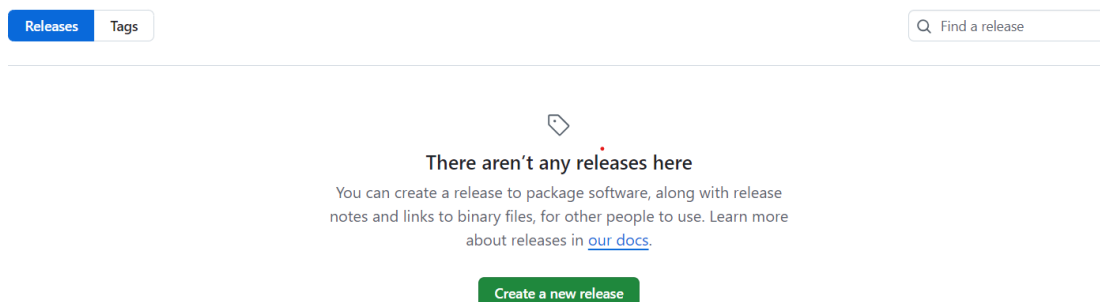
A continuació, he fet un git push del tag:

```
sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (main)
$ git push origin v1.0
Enumerating objects: 1, done.
Counting objects: 100% (1/1), done.
Writing objects: 100% (1/1), 184 bytes | 184.00 KiB/s, done.
Total 1 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/Thor22Greta/practica-control-versions.git
 * [new tag]           v1.0 -> v1.0
```

Ací podem comprovar que s’ha pujat el tag:



Creació de la release:



Cree la release amb el títol del tag i una descripció:

Modifique el css per a que una imatge aparega com a fons de la capçalera:

```

82
83  /* =====
84  Author's custom styles
85  ===== */
86
87  /* Estilo para la cabecera con imagen de fondo */
88  header {
89      background-image: url('../img/image.png');
90      background-size: cover;
91      background-position: center;
92      height: 200px;
93      color: white;
94      display: flex;
95      align-items: center;
96      justify-content: center;
97      text-align: center;
98  }
99

```

Aquesta es la visualització:



Finalment cree el hotfix de les millores, creant una nova branca.

Faig “git add” a l’index, el css i la imatge.

```

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (develop)
$ git checkout -b hotfix/milloresV_1_0
Switched to a new branch 'hotfix/milloresV_1_0'

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (hotfix/milloresV_1_0)
$ git add index.html css/style.css

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (hotfix/milloresV_1_0)
$ git status
On branch hotfix/milloresV_1_0
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   css/style.css
        modified:   index.html

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

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (hotfix/milloresV_1_0)
$ git add img/image.png

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (hotfix/milloresV_1_0)
$ git status
On branch hotfix/milloresV_1_0
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   css/style.css
        new file:   img/image.png
        modified:   index.html

```


He creat un nou commit, un push i un pull.

```

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (hotfix/milloresV_1_0)
$ git commit -m "Usuari 1: hotfix millores exemples i css"
[hotfix/milloresV_1_0 516e53c] Usuari 1: hotfix millores exemples i css
 3 files changed, 47 insertions(+), 29 deletions(-)
 create mode 100644 new-site/img/image.png

sheil@LAPTOP-TVSLTJ8L MINGW64 ~/practica-control-versions/new-site (hotfix/milloresV_1_0)
$ git push origin hotfix/milloresV_1_0
Enumerating objects: 14, done.
Counting objects: 100% (14/14), done.
Delta compression using up to 8 threads
Compressing objects: 100% (7/7), done.
Writing objects: 100% (8/8), 208.25 KiB | 20.82 MiB/s, done.
Total 8 (delta 3), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (3/3), completed with 3 local objects.
remote:
remote: Create a pull request for 'hotfix/milloresV_1_0' on GitHub by visiting:
remote:   https://github.com/Thor22Greta/practica-control-versions/pull/new/hotfix/milloresV_1_0
remote:
To https://github.com/Thor22Greta/practica-control-versions.git
 * [new branch]      hotfix/milloresV_1_0 -> hotfix/milloresV_1_0

```

 hotfix/milloresV\_1\_0 had recent pushes 1 second ago

[Compare & pull request](#)

Afegisc a antoni-gimenez com a col·laborador:

