

**Christophe Fessard**

**Contrôle de version avec git et github**

**Pointeur HEAD**

Dossier .git : est responsable de tracer toutes les modifications du projet.

Pointeur HEAD = pointe sur la branche courante, est un fichier du répertoire .git

```
$ ls
COMMIT_EDITMSG  HEAD      config     hooks/    info/     objects/   refs/
FETCH_HEAD      ORIG_HEAD description index     logs/     packed-refs

tophe@LAPTOP-FLENNB3D MINGW64 /c/tophe/mooc/coursera-version-control/semaphore-projet/my-first-repo/.git (GIT_DIR!)
$ cat HEAD
ref: refs/heads/main
```

```
$ cat refs/heads/main
2459f5b71c65032cb5981cdcef23a7cc9c39c956
```

=> id haché qui identifie le commit actuel.

Changeons de branche :

```
project/my-first-repo (main)
$ git branch
  feature/lesson
* main

tophe@LAPTOP-FLENNB3D MINGW64 /c/tophe/mooc/coursera-version-control/semaphore-projet/my-first-repo (main)
$ git checkout feature/lesson
Switched to branch 'feature/lesson'
Your branch is up to date with 'origin/feature/lesson'.

tophe@LAPTOP-FLENNB3D MINGW64 /c/tophe/mooc/coursera-version-control/semaphore-projet/my-first-repo (feature/lesson)
$ git branch
* feature/lesson
  main
```

```
project/my-first-repo (feature/lesson)  
$ cat .git/HEAD  
ref: refs/heads/feature/lesson
```

```
project/my-first-repo (feature/lesson)  
$ cat .git/refs/heads/feature/lesson  
93cd1c7fc5f7470701a31b8dba9d1ca52b3a010b
```

Revenons dans la branche principale.

```
project/my-first-repo (feature/lesson)  
$ git checkout main  
Switched to branch 'main'  
Your branch is up to date with 'origin/main'.
```

```
project/my-first-repo (main)  
$ ls  
README.md  test.txt  test2.txt
```

=> Modifier le fichier test.txt

```
main)  
$ cat .git/refs/heads/main  
2459f5b71c65032cb5981cdcef23a7cc9c39c956
```

Mettre à jour les commit =>

```
tophe@LAPTOP  
ain)  
$ git add .
```

```
main)  
$ git commit -m "modification mineur"  
[main 5f836a4] modification mineur  
1 file changed, 1 insertion(+)
```

```
main)  
$ cat .git/refs/heads/main  
5f836a494768b8598dcb0af974c8ac19c2955a0d
```

Chaque fois qu'une modification est apportée à un commit, l'identifiant unique haché est mis à jour et devient le dernier commit pour ce répertoire de travail.