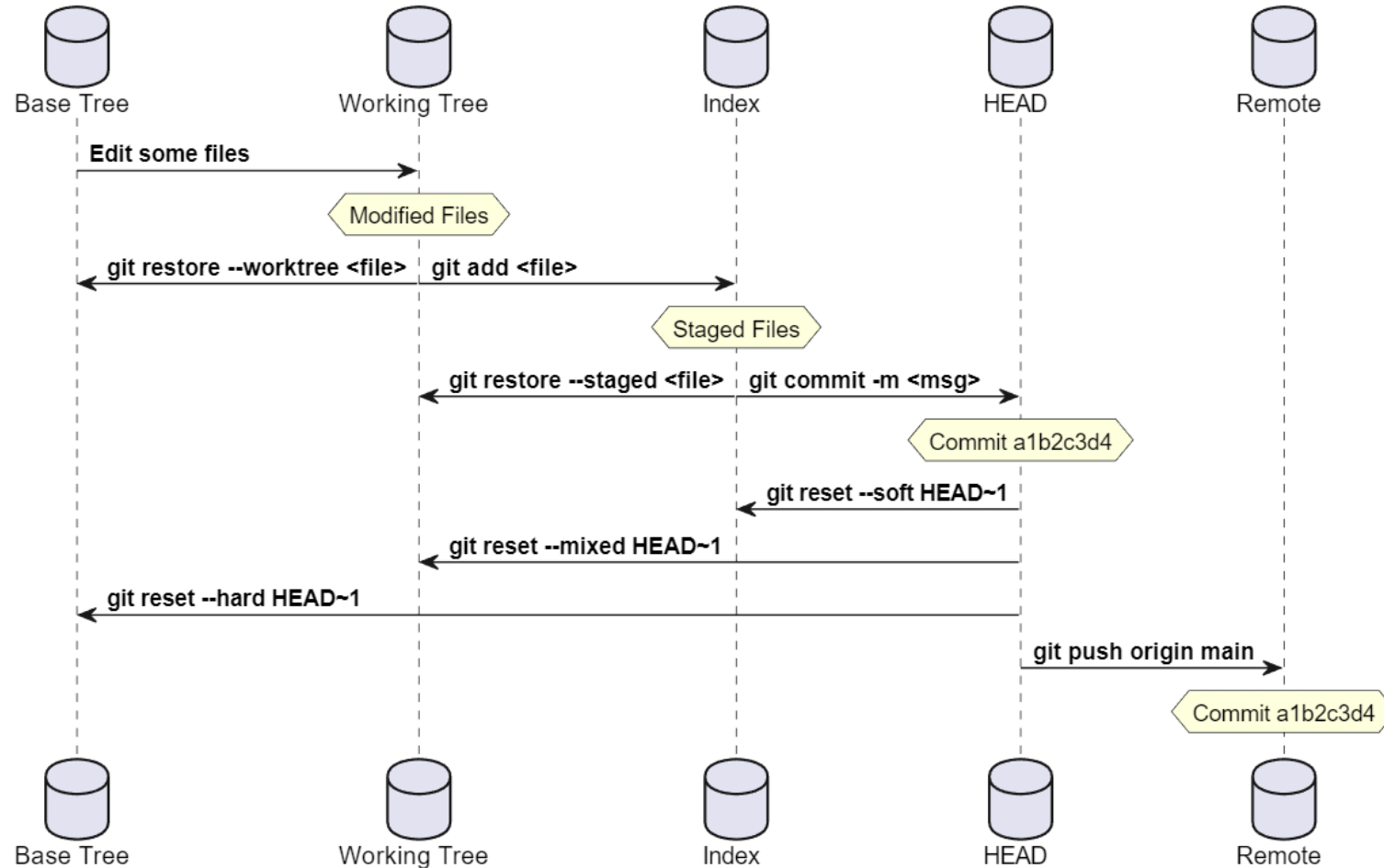# Chapitre 10

Git

Partie 2

Plan

1. Vue d'ensemble
2. État courant
3. `git add`
4. `git commit`
5. Undo

Vue d'ensemble

État courant

git status

```
                On branch main
    repo        Your branch is up to date with 'origin/main'.


                Changes to be committed:
    index          (use "git restore --staged <file>..." to unstage)
                        modified:   Le_Callennec_Benoit.txt


                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)
    Working             modified:   Le_Callennec_Benoit_2.txt

    Tree
                Untracked files:
                   (use "git add <file>..." to include in what will be committed)
                        Le_Callennec_Benoit_3.txt
```

État courant

`git diff` **différences entre** `Working tree` **et** `index`

`git diff --staged` **différences entre** `index` **et** `repo`

```
diff --git a/Le_Callennec_Benoit_2.txt b/Le_Callennec_Benoit_2.txt
index d93666c..d1cf665 100644
--- a/Le_Callennec_Benoit_2.txt
+++ b/Le_Callennec_Benoit_2.txt
@@ -3,3 +3,4 @@ Version 0.2: parallel commit.
 Version 0.3: parallel commit 2.
 Version 0.4: parallel commit 3.
 Version 0.5: parallel commit coming from main.
+Version 0.6: some modifications to mark it as modified.
```

État courant

git log **tous les commits**

État courant

git log -3 **les 3 derniers commits**

État courant

git log origin..HEAD **les commits entre origin et HEAD**

```
commit 7c37a406966c5e0401c8d829fb01d34492b89fd7 (HEAD -> main)
Author: Benoit Le Callennec <benoit.lecallennec@he-arc.ch>
Date:   Sat Dec 2 19:02:48 2023 +0100

    DONE Commit for testing log command
```

État courant

git log --patch **les commits avec les patchs**

```
commit 7c37a406966c5e0401c8d829fb01d34492b89fd7 (HEAD -> main)
Author: Benoit Le Callennec <benoit.lecallennec@he-arc.ch>
Date:   Sat Dec 2 19:02:48 2023 +0100

    DONE Commit for testing log command

diff --git a/Le_Callennec_Benoit.txt b/Le_Callennec_Benoit.txt
index df21b7d..57e43bc 100644
--- a/Le_Callennec_Benoit.txt
+++ b/Le_Callennec_Benoit.txt
@@ -1,5 +1,4 @@
 Author: Benoit Le Callennec
 Version 0.1: first edit to this file.
 Version 0.2: second edit to this file to generate a merge commit.
-
-
\ No newline at end of file
+Version 0.3: some modifications to mark it as modified.

commit 4681cfb6898c692b136e178011429f0307f3114f (origin/main, origin/HEAD)
Merge: 1358c5c 40818e5
Author: Benoit Le Callennec <benoit.lecallennec@he-arc.ch>
Date:   Sun Nov 26 20:35:34 2023 +0100

    Merge branch 'BLC_MergeCommit'
```

État courant

git log \<file\> **les commits modifiant \<file\>**

```
commit 40818e523bd9a605a9d9ae91fc72366df457a182
Author: Benoit Le Callennec <benoit.lecallennec@he-arc.ch>
Date:    Sun Nov 26 20:25:58 2023 +0100

    DONE Some important features here.

diff --git a/Le_Callennec_Benoit.txt b/Le_Callennec_Benoit.txt
index 0a64225..df21b7d 100644
--- a/Le_Callennec_Benoit.txt
+++ b/Le_Callennec_Benoit.txt
@@ -1,4 +1,5 @@
 Author: Benoit Le Callennec
 Version 0.1: first edit to this file.
+Version 0.2: second edit to this file to generate a merge commit.


\ No newline at end of file

commit 58b069ab95a7bbda6face500aa2ee16ebb4f5d2f
Author: Benoit Le Callennec <benoit.lecallennec@he-arc.ch>
Date:    Mon Dec 5 14:52:11 2022 +0100

    DONE Edited author file.
```

État courant

`git log -- <file>` **si** `<file>` **a été effacé par le passé**

git add — part 2

git add

Que se passe-t-il si on modifie un fichier déjà ajouté dans l'index ?

git add — part 2

git add

```
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
   (use "git push" to publish your local commits)


Changes to be committed:
   (use "git restore --staged <file>..." to unstage)
          modified:    Le_Callennec_Benoit_2.txt


Untracked files:
   (use "git add <file>..." to include in what will be committed)
          Le_Callennec_Benoit_3.txt
```

git add — part 2

git add

```
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
  (use "git push" to publish your local commits)

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   Le_Callennec_Benoit_2.txt

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:   Le_Callennec_Benoit_2.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        Le_Callennec_Benoit_3.txt
```

git commit --verbose

git commit --verbose

git commit --all

git commit --all

```
git add *
git commit …
```

Dangereux car on peut commit des modifications par erreur

Undo

`git restore --worktree <file>`

Undo toutes les modifications courantes faites à `<file>`

Undo

`git restore --staged <file>`

Retire les modifications faites à `<file>` depuis l'`index`

Identifier un commit

Avec son hash

Avec sa branche → dernier commit sur cette branche

`HEAD` **→ le dernier commit**

`HEAD~1` **→ l'avant-dernier / pénultième commit**

`HEAD~2` **→ l'antépénultième**

`HEAD~3` **→ Le préantépénultième**

Identifier plusieurs commits

`<from>..<to>`

`HEAD~3..HEAD~1` → **tous les commits entre le préantépénultième et l'avant dernier.**

`origin/main..HEAD` → **tous les commits à push sur** `origin/main`

Undo - Suite

[git reset --soft <commit>](#)

[git reset --mixed <commit>](#)

[git reset --hard <commit>](#)

Vue d'ensemble