

FORMATION GIT

Ou comment bien collaborer à plusieurs
sur son code

Installation de Git

Sur **Windows** <https://gitforwindows.org/>

Sur **Mac** Déjà installé sinon **brew install git**

Sur **Linux** Déjà installé sinon **sudo apt update && sudo apt install git**

Pourquoi utiliser git ?

- Versionner son code
- Historique des modifications
- Travailler à plusieurs
- Sauvegarder son code à distance



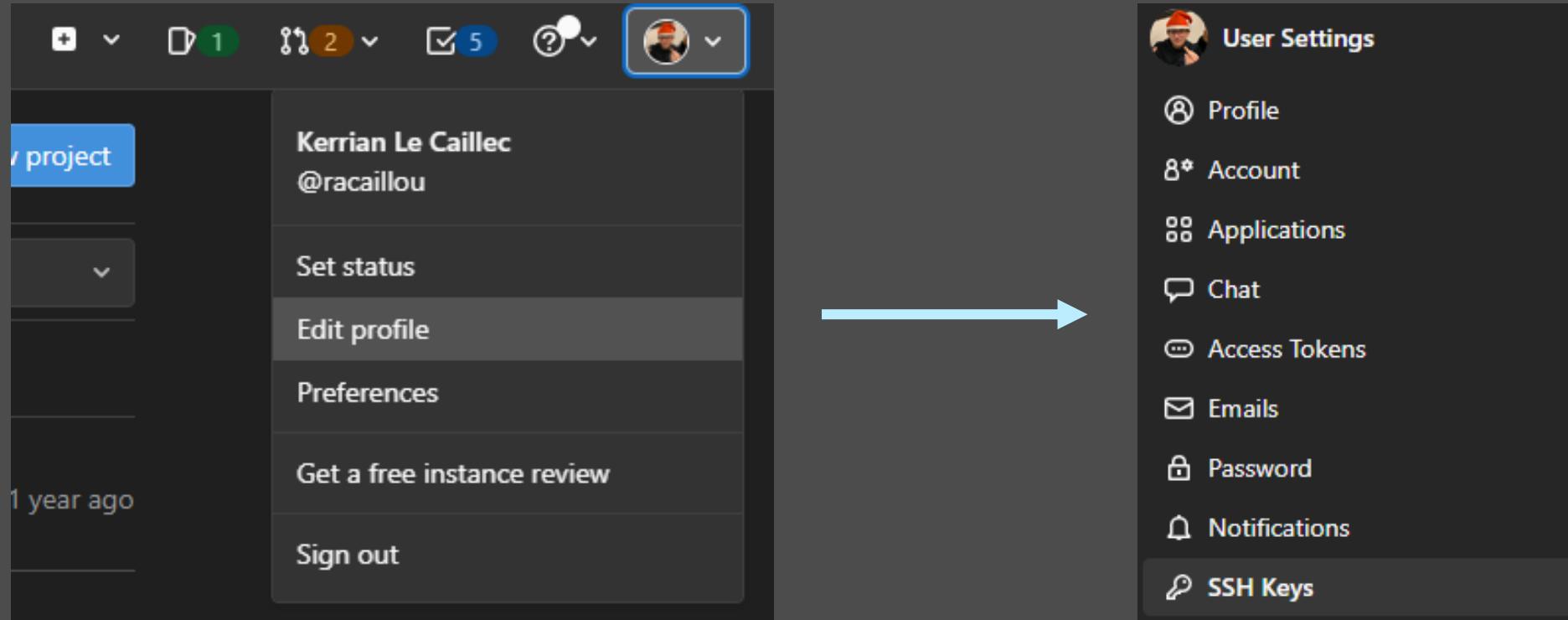
Services d'hébergement de répo Git



gitlab.viarezo.fr

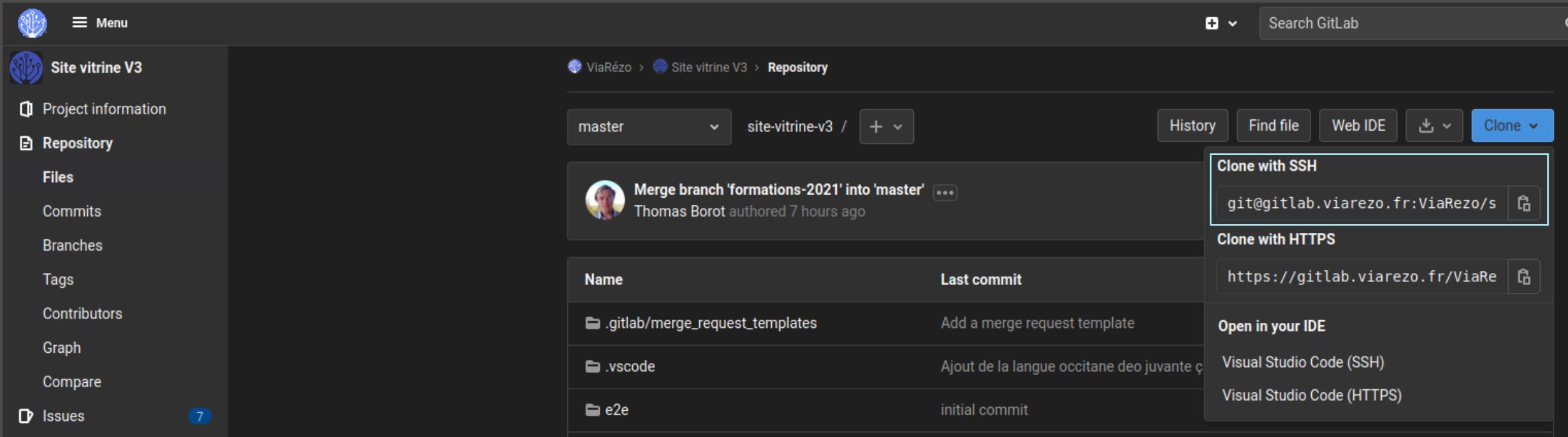
Ajouter une clé SSH

- ssh-keygen -o -a 256 -t ed25519
- cd
- cat .ssh/id_ed25519.pub



Cloner un repository

- git clone < lien vers le répo >



The screenshot shows the GitLab interface for a repository named 'Site vitrine V3'. The left sidebar contains project navigation links: Site vitrine V3, Project information, Repository (selected), Files, Commits, Branches, Tags, Contributors, Graph, Compare, and Issues (with 7 notifications). The main content area shows a merge request from 'formations-2021' into 'master' by Thomas Borot, authored 7 hours ago. Below this is a table of repository files and their last commits:

Name	Last commit
.gitlab/merge_request_templates	Add a merge request template
.vscode	Ajout de la langue occitane deo juvante ç
e2e	initial commit

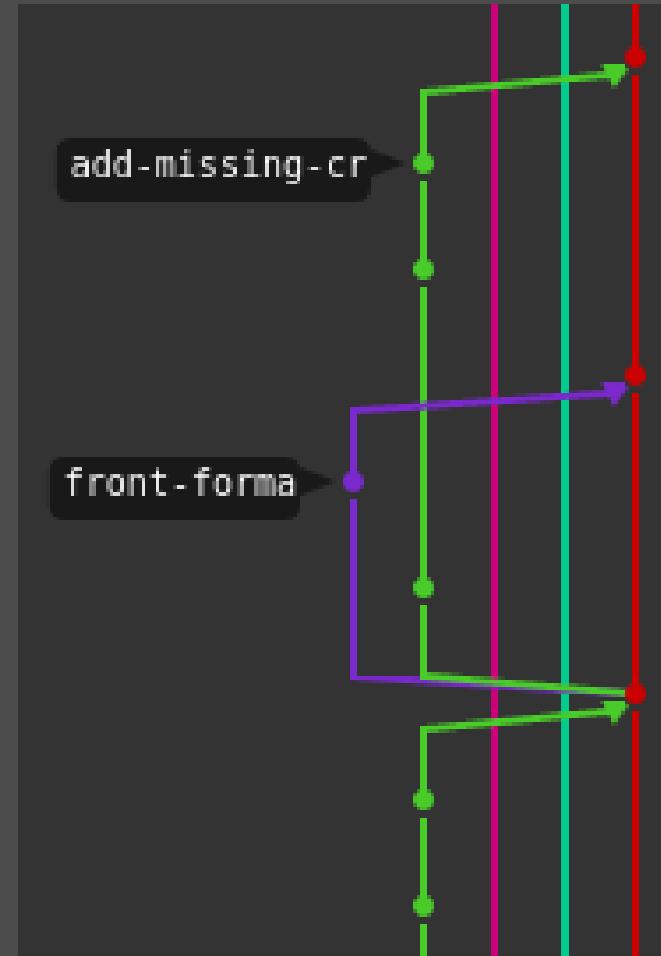
On the right, a 'Clone' button is expanded to show cloning options:

- Clone with SSH: `git@gitlab.viarezo.fr:ViaRezo/s`
- Clone with HTTPS: `https://gitlab.viarezo.fr/ViaRe`
- Open in your IDE: Visual Studio Code (SSH) and Visual Studio Code (HTTPS)

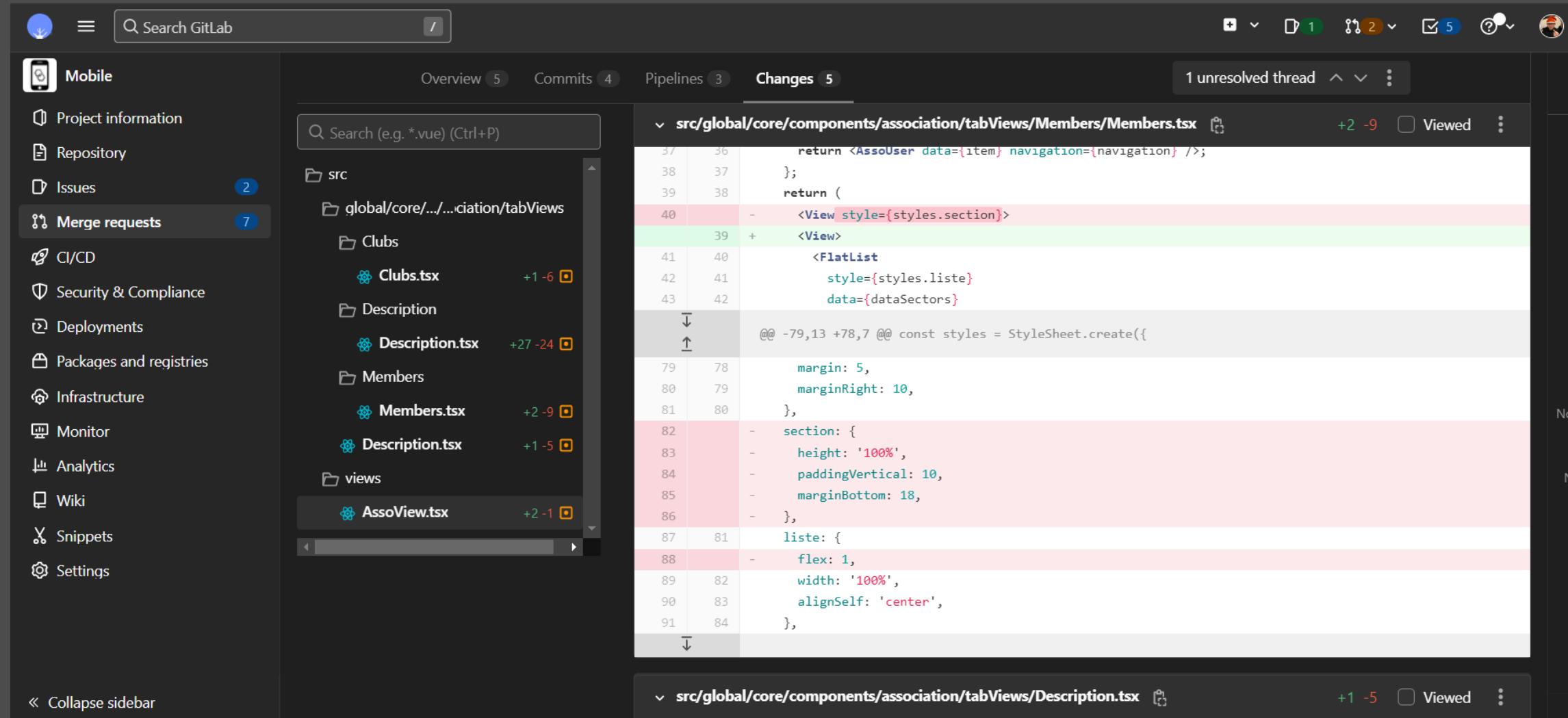
Le commit

Un commit c'est :

- L'unité de base de git
- Un ensemble de changement (diff)
- Une version du code
- 1 commit = 1 fonctionnalité



Je vous montre un diff !



Search GitLab /

Mobile

Project information

Repository

Issues 2

Merge requests 7

CI/CD

Security & Compliance

Deployments

Packages and registries

Infrastructure

Monitor

Analytics

Wiki

Snippets

Settings

Overview 5 Commits 4 Pipelines 3 Changes 5 1 unresolved thread + - Viewed

src/global/core/components/association/tabViews/Members/Members.tsx

```
37 36      return <AssoUser data={item} navigation={navigation} />;  
38 37    };  
39 38    return (  
40 39 -      <View style={styles.section}>  
41 39 +      <View>  
42 40        <FlatList  
43 41          style={styles.liste}  
44 42            data={dataSectors}  
45 43  
46 44      @@ -79,13 +78,7 @@ const styles = StyleSheet.create({  
47 45        margin: 5,  
48 46        marginRight: 10,  
49 47      },  
50 48      -      section: {  
51 49        -        height: '100%',  
52 50        -        paddingVertical: 10,  
53 51        -        marginBottom: 18,  
54 52      -      },  
55 53      liste: {  
56 54        -        flex: 1,  
57 55        -        width: '100%',  
58 56        -        alignSelf: 'center',  
59 57      -    },  
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91 85
```

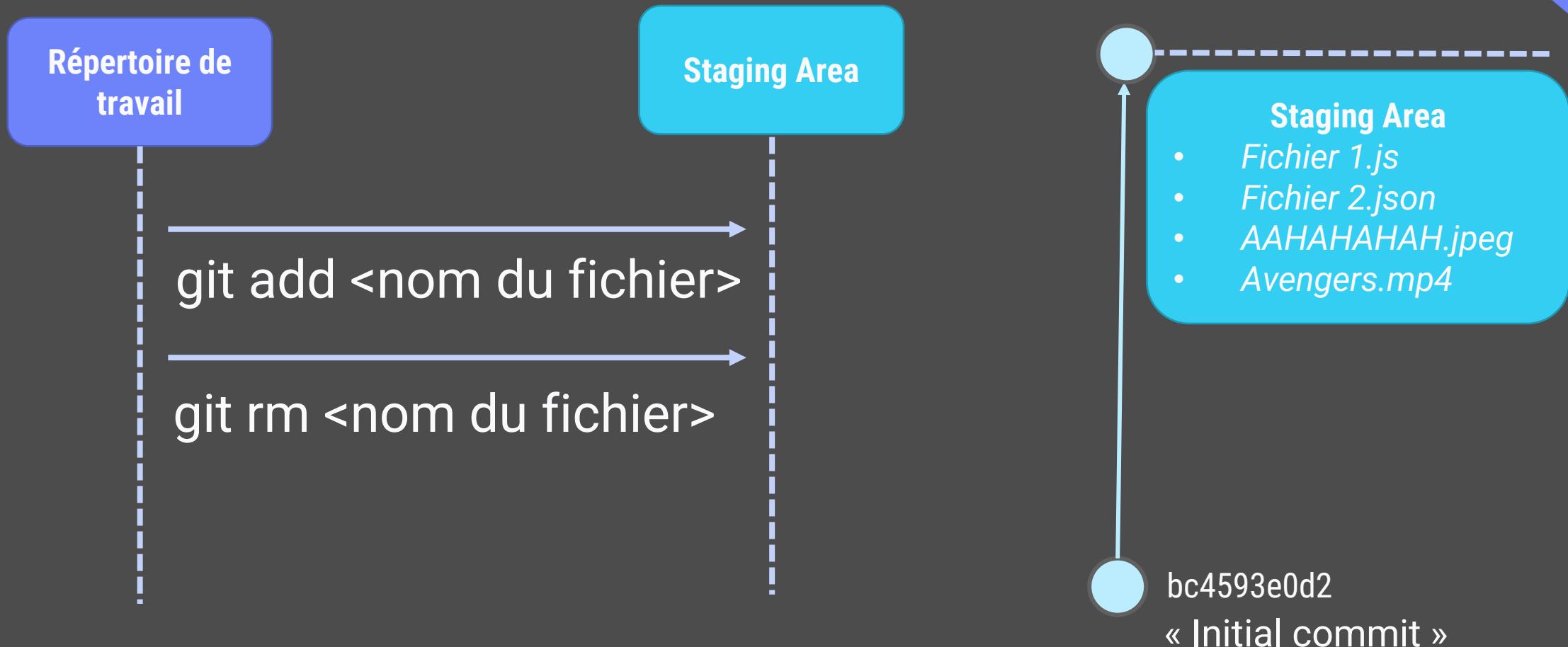
src/global/core/components/association/tabViews/Description.tsx

```
+1 -5 Viewed
```

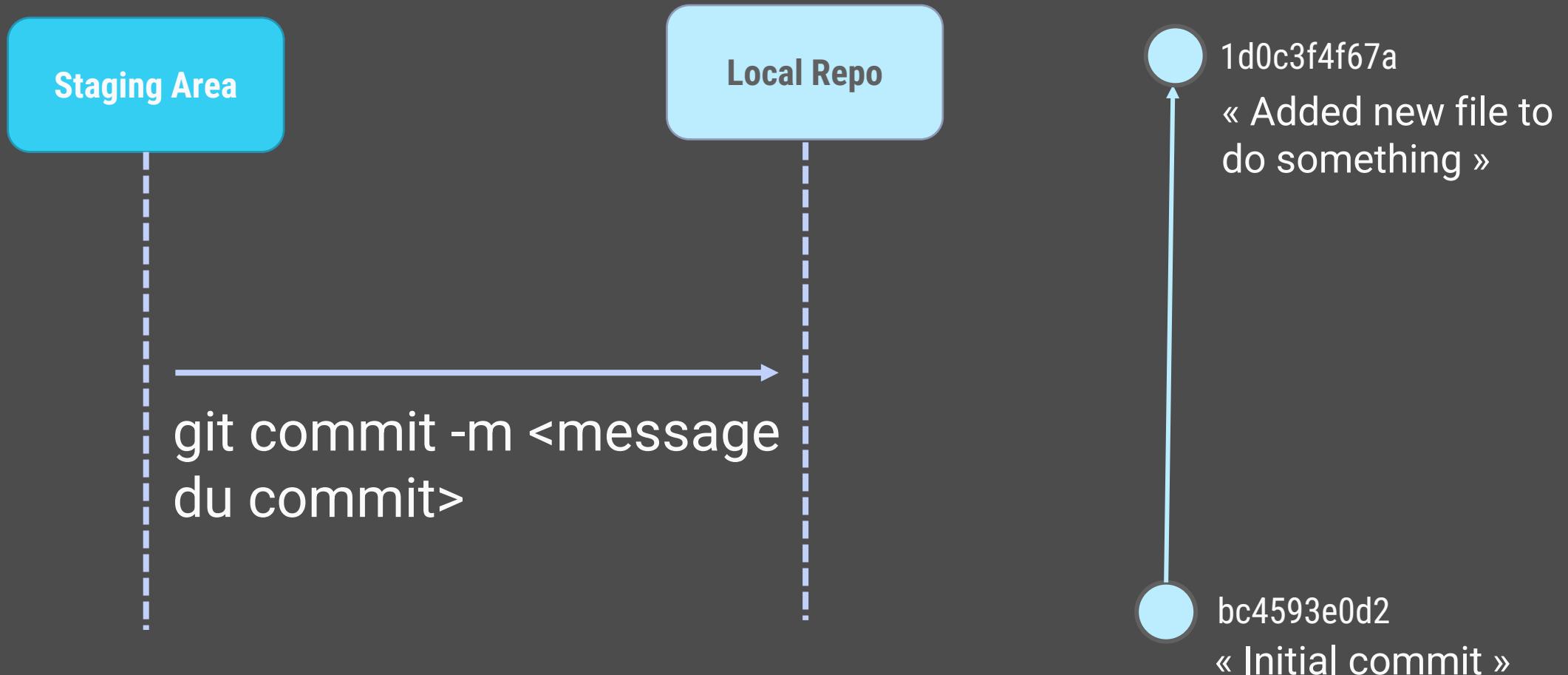
Commandes d'information

- **git status** affiche un résumé de la situation
- **git log** affiche un historique des "commit"
- **git log --graph** affiche un historique sous forme de graphe
- **git log --stat** affiche les détails des "commit"
- **git diff <référence> <comparé>** affiche les différences entre 2 "commit"

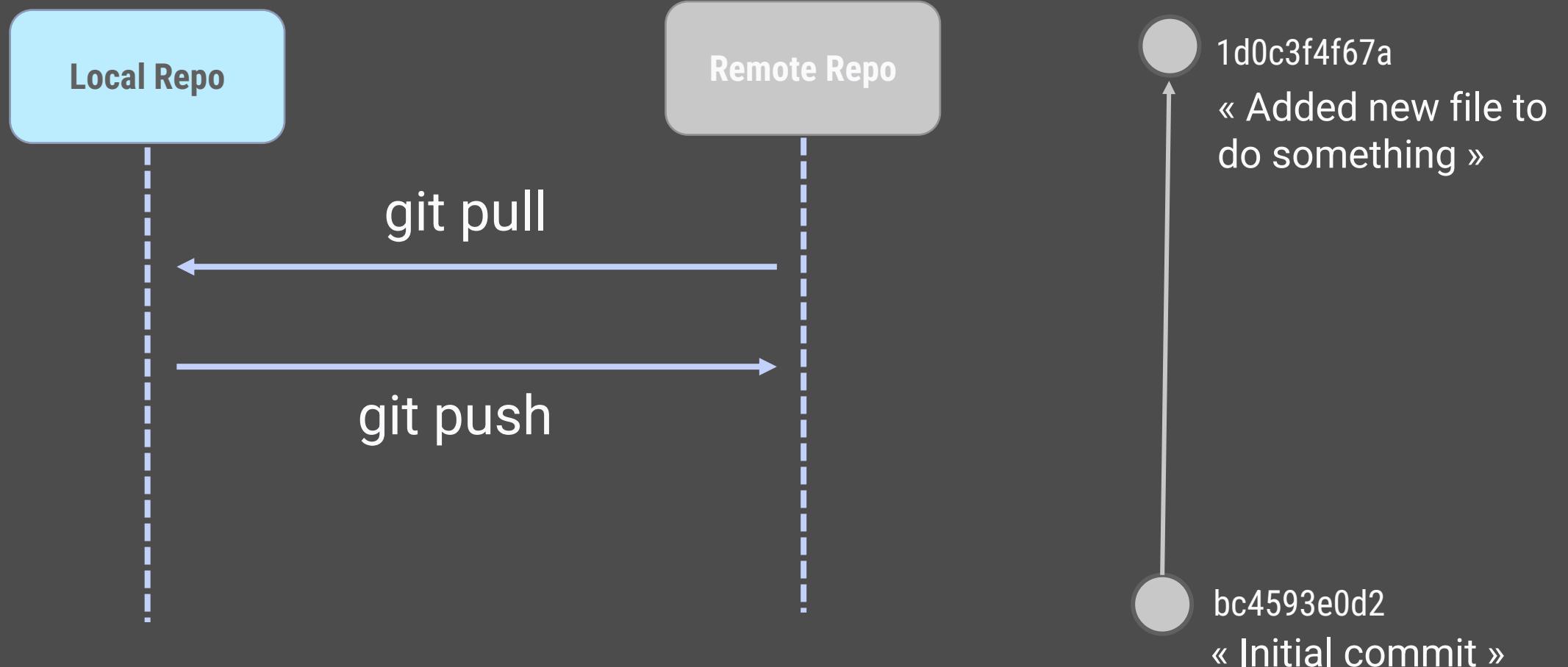
Ajouter ou supprimer des fichiers



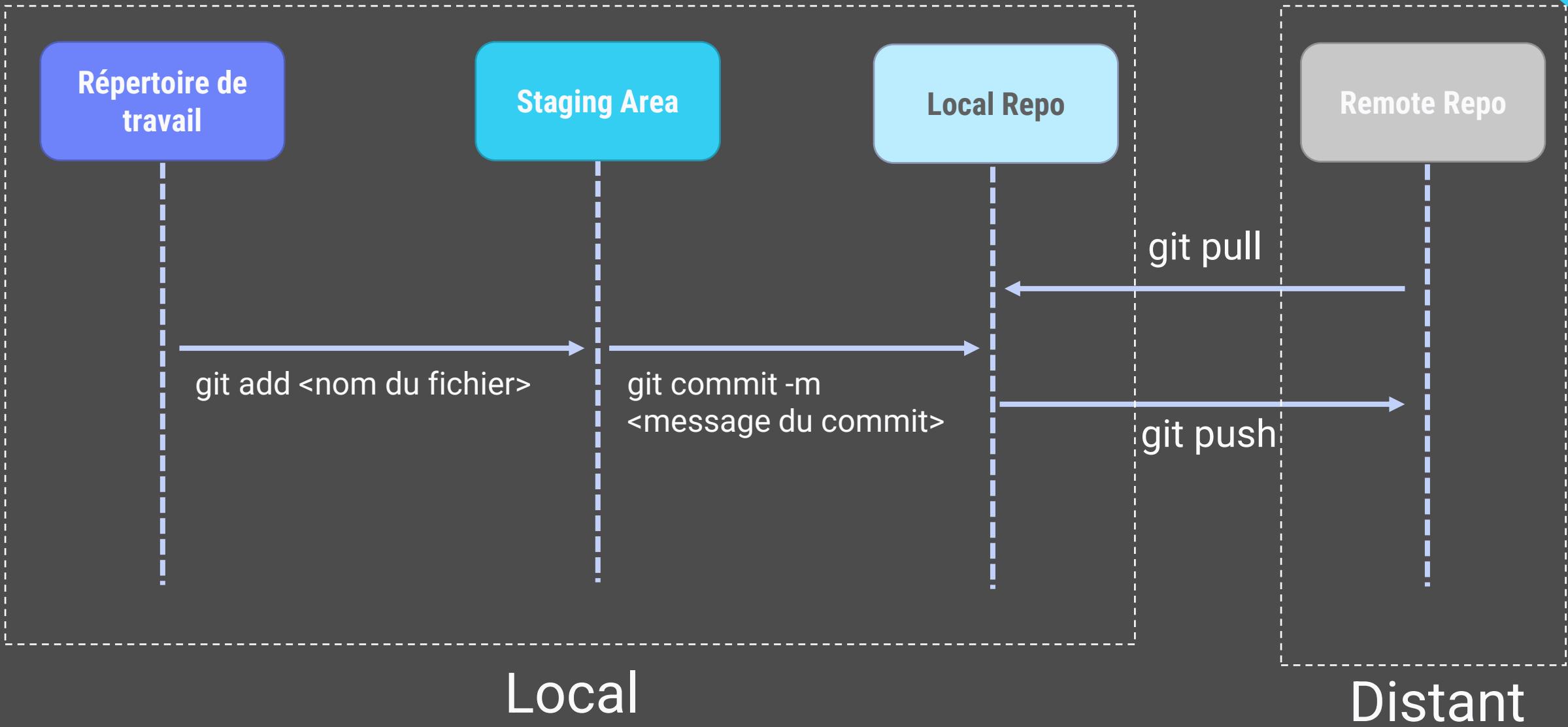
Commit les changements



Publier et récupérer les changements à distance



Bilan des actions



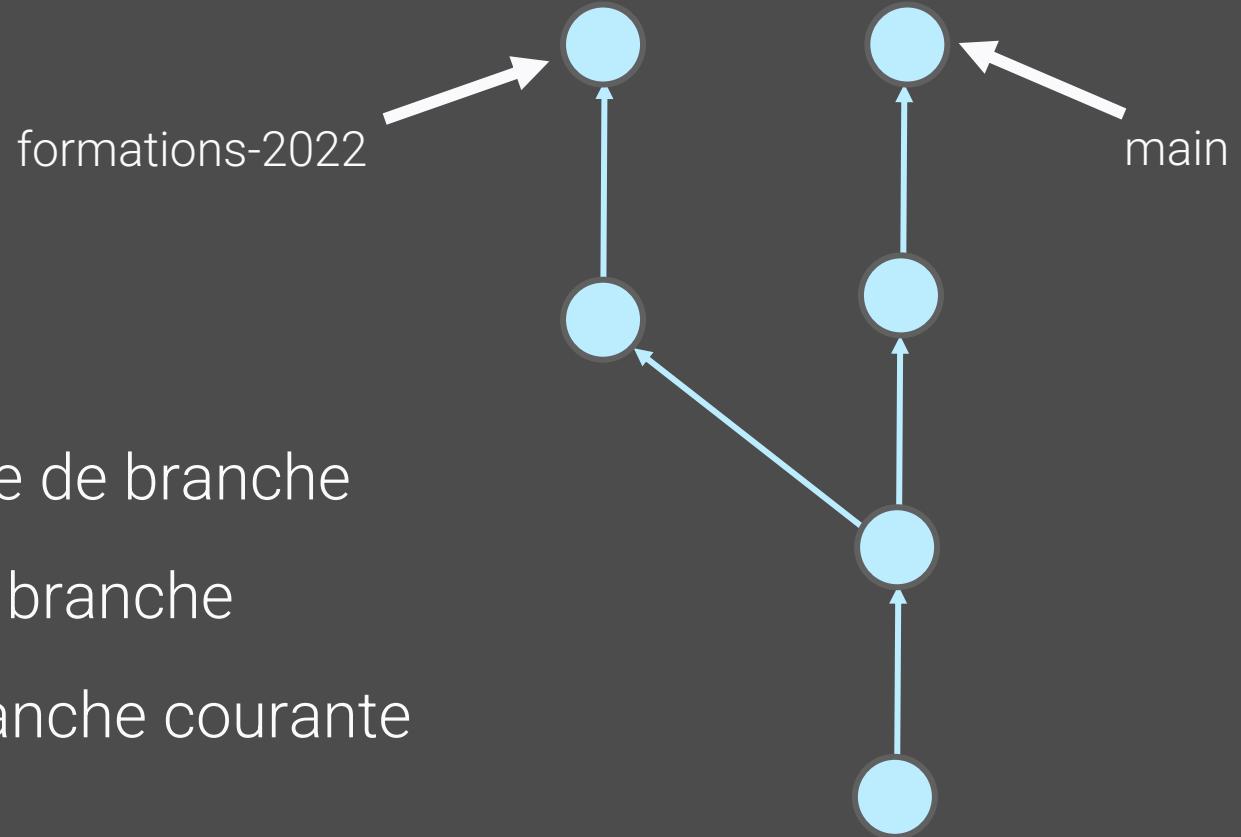
On passe au TP !

C'est l'heure du TP :

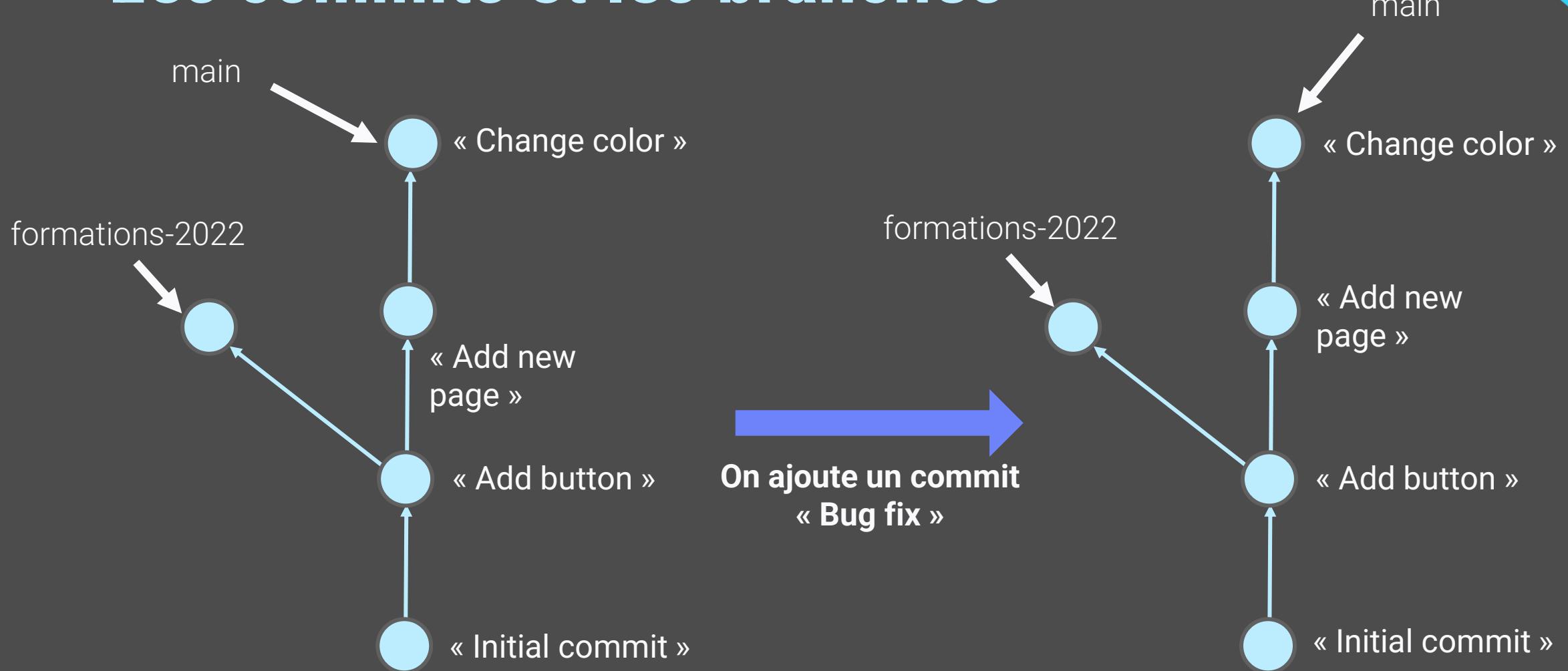
- Se rendre sur [**https://gitlab.viarezo.fr/ViaRezo/formation-git**](https://gitlab.viarezo.fr/ViaRezo/formation-git)
- Suivre les indications du README jusqu'à la **partie 3**
- Bien travailler dans le fork du projet ! (il doit y avoir l'username dans l'url)
- N'hésitez pas à poser des questions aux staffeurs

Les branches

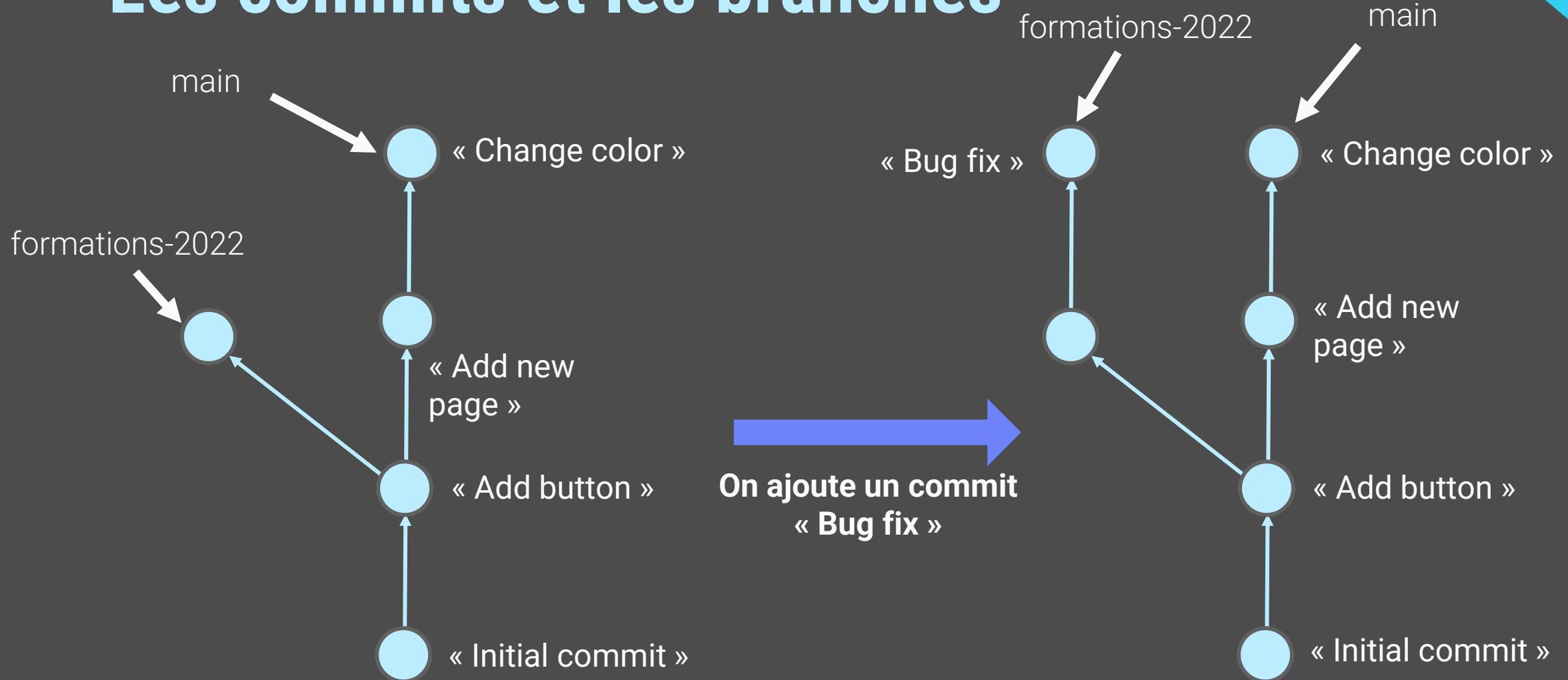
- **git checkout <ma branche>** change de branche
- **git branch <ma branche>** crée une branche
- **git diff <référence>** compare la branche courante avec une branche de référence



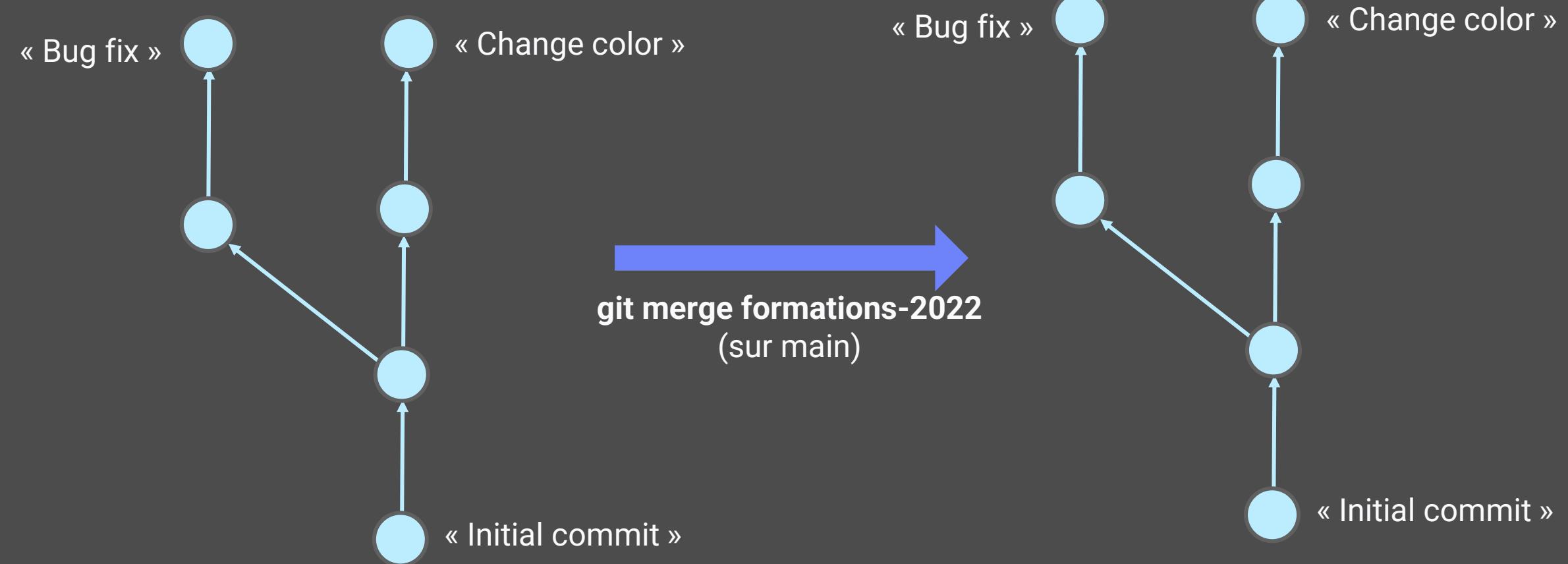
Les commits et les branches



Les commits et les branches

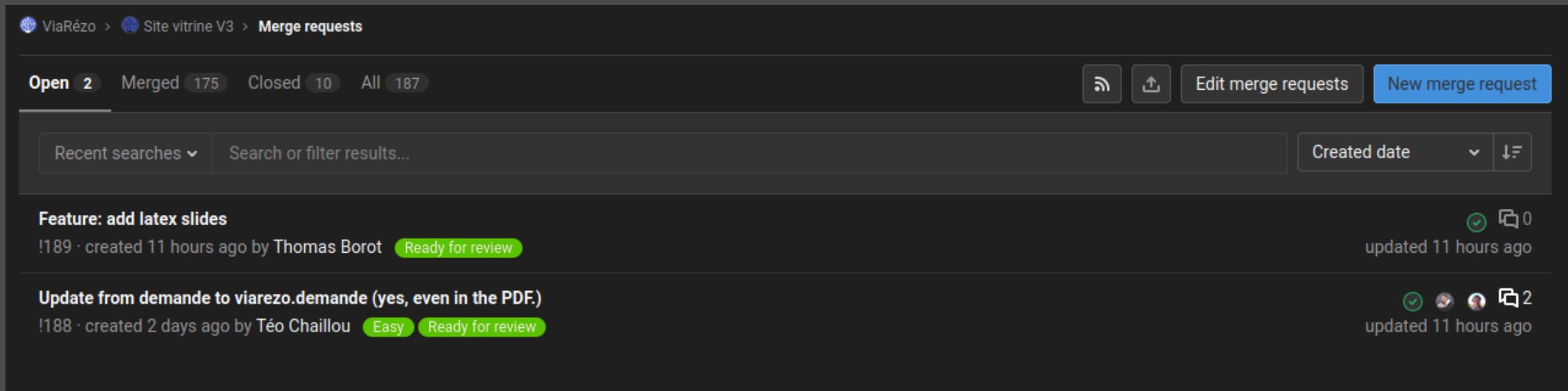


Fusionner des branches



Merge Request

Convention pour ajouter du code dans master



The screenshot shows a web interface for managing merge requests. At the top, there are navigation links: 'ViaRézo > Site vitrine V3 > Merge requests'. Below this is a header with buttons for 'Open 2', 'Merged 175', 'Closed 10', 'All 187', and 'Edit merge requests' (which is highlighted in blue), along with a 'New merge request' button. There are also icons for RSS feed and file upload. A search bar with 'Recent searches' and a 'Search or filter results...' placeholder is present. A dropdown menu for 'Created date' is open, showing 'Created date' with a dropdown arrow and a 'Descending' (downward arrow) icon.

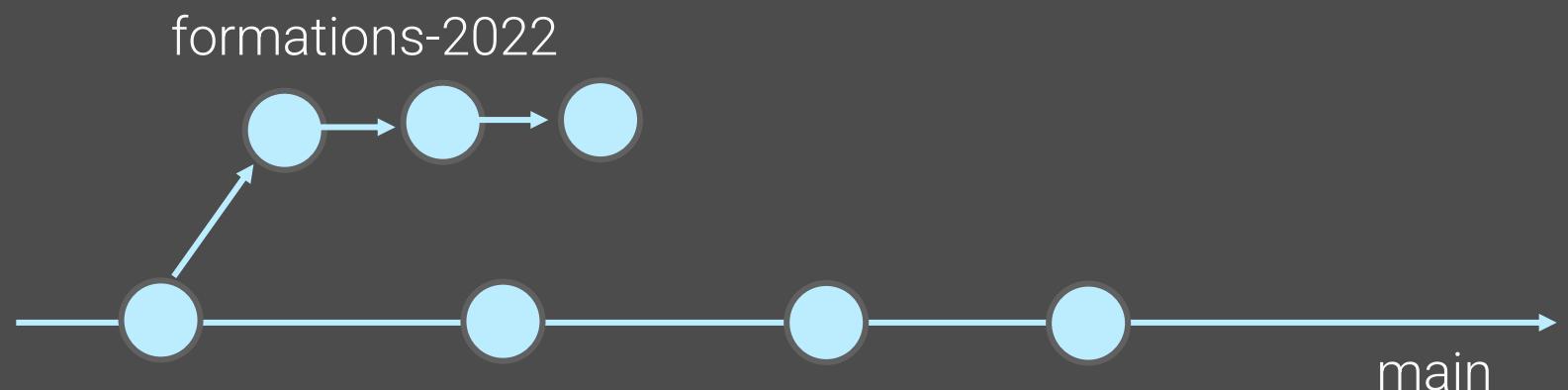
Feature: add latex slides 0
!189 · created 11 hours ago by Thomas Borot Ready for review updated 11 hours ago

Update from demande to viarezo.demande (yes, even in the PDF.) 2
!188 · created 2 days ago by Téo Chaillou Easy Ready for review updated 11 hours ago

Le rebase

- Refaire les modifications à partir de la dernière version
- Objectif : éviter les trop grandes divergences
- **git rebase main**

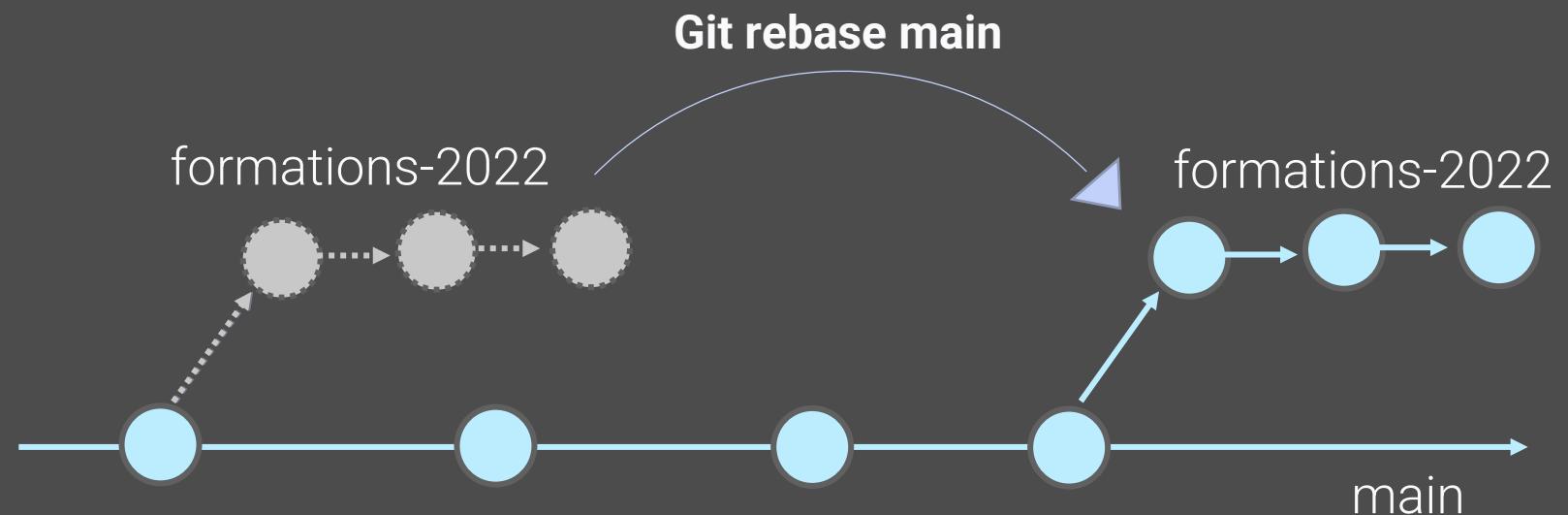
(sur **formations-2022**)



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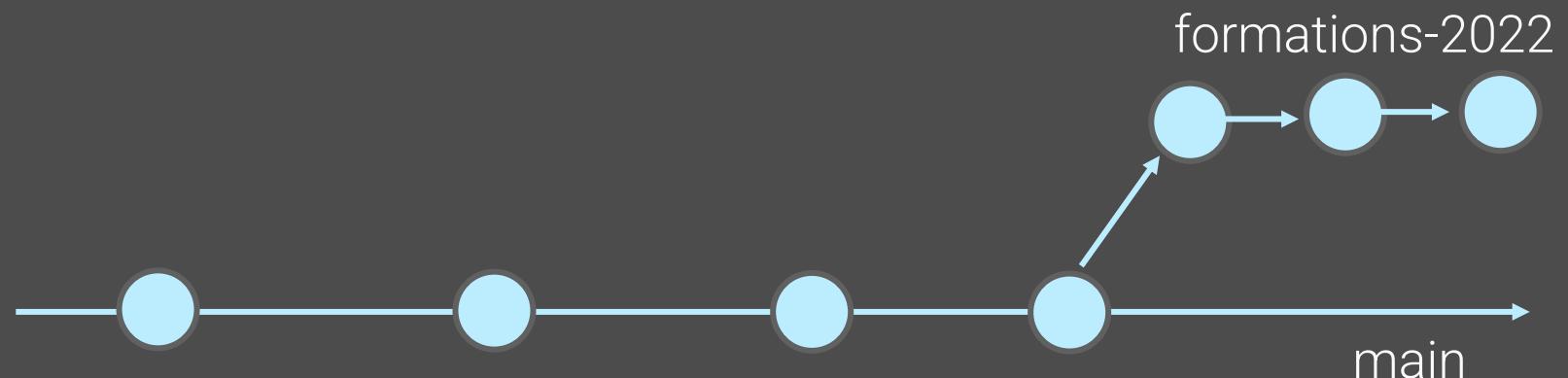
(sur formations-2022)



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(sur formations-2022)



CONFLICTS : aled

- Parfois Git rencontre des erreurs
- Pas de panique ! Git explique les erreurs
- Bien lire les messages d'erreur

```
Accept Current Change | Accept Incoming Change | Accept Both Changes | Compare Changes
79 <<<<< HEAD (Current change)
80   | navigation.push(pathType, getPathIdByType(pathType, pathId));
81 =====
82   | navigation.navigate(pathType, pathType === 'association' ? { code: pathId } : { id: pathId });
83 >>>>> b09c6d2 (remplace oush by navigate) (Incoming Change)
```

Bilan de comment travailler sur Git

- Je crée ma branche
- J'ajoute des commit dessus
- Je fusionne ma branche avec main

Stasher ses changements

Répertoire de travail

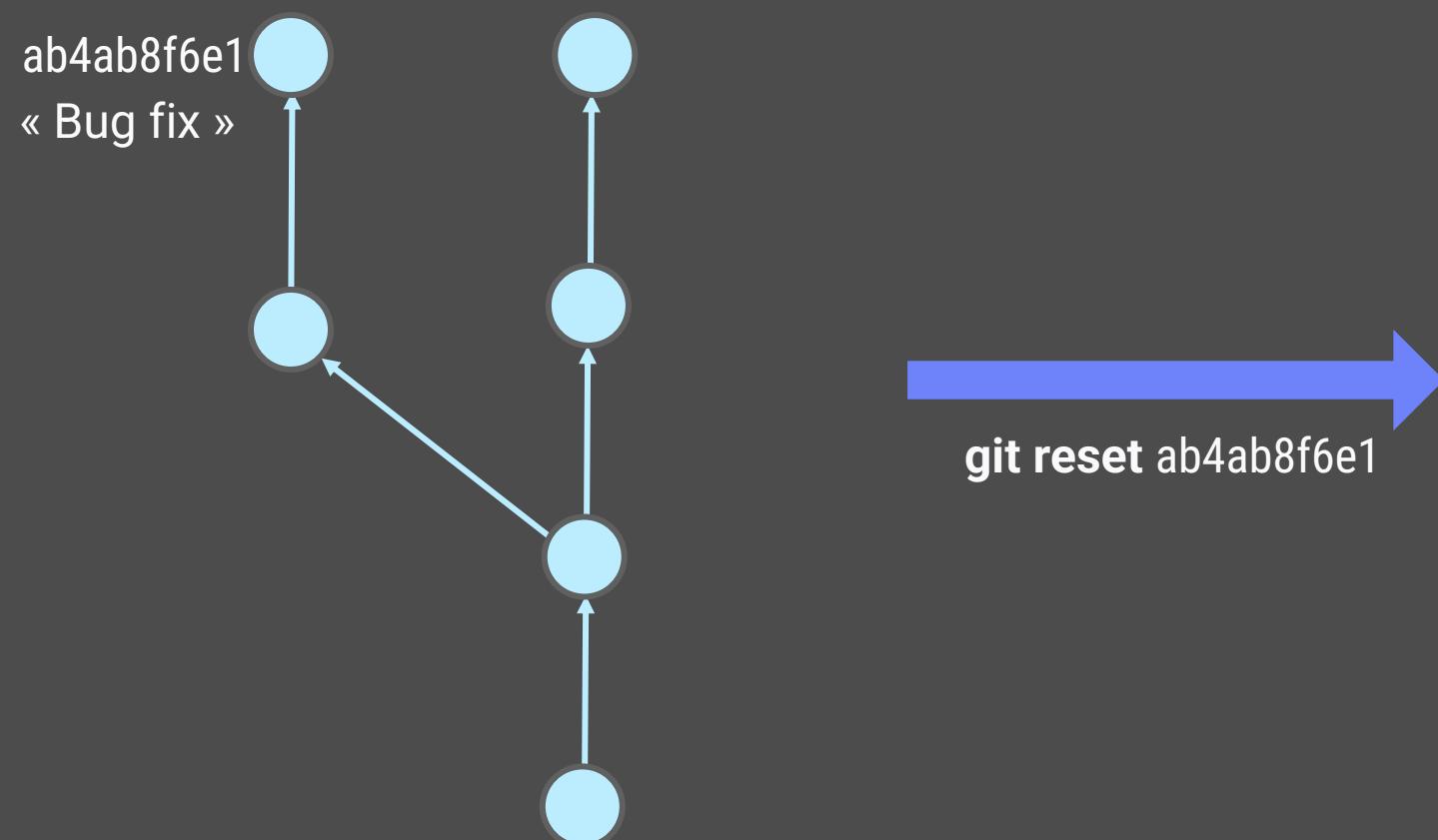
- *Fichier 1.js*
- *Fichier 2.json*
- *AAHAHAHAH.jpeg*
- *Avengers.mp4*



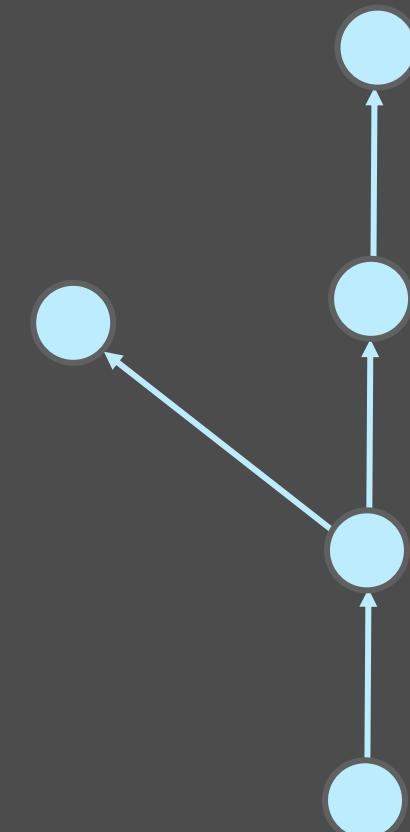
git stash show

- *Fichier 1.js*
- *Fichier 2.json*
- *AAHAHAHAH.jpeg*
- *Avengers.mp4*

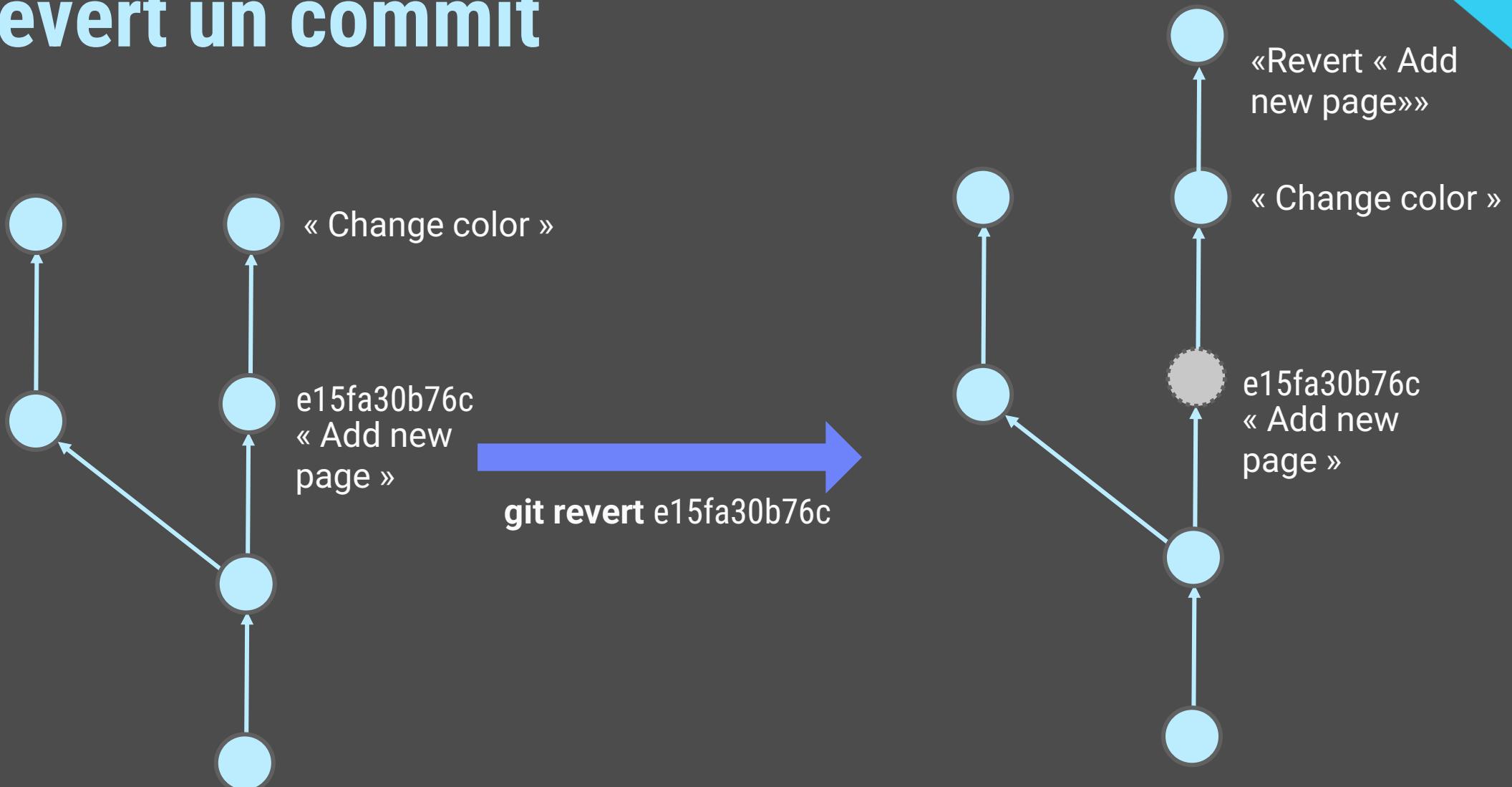
Reset un commit



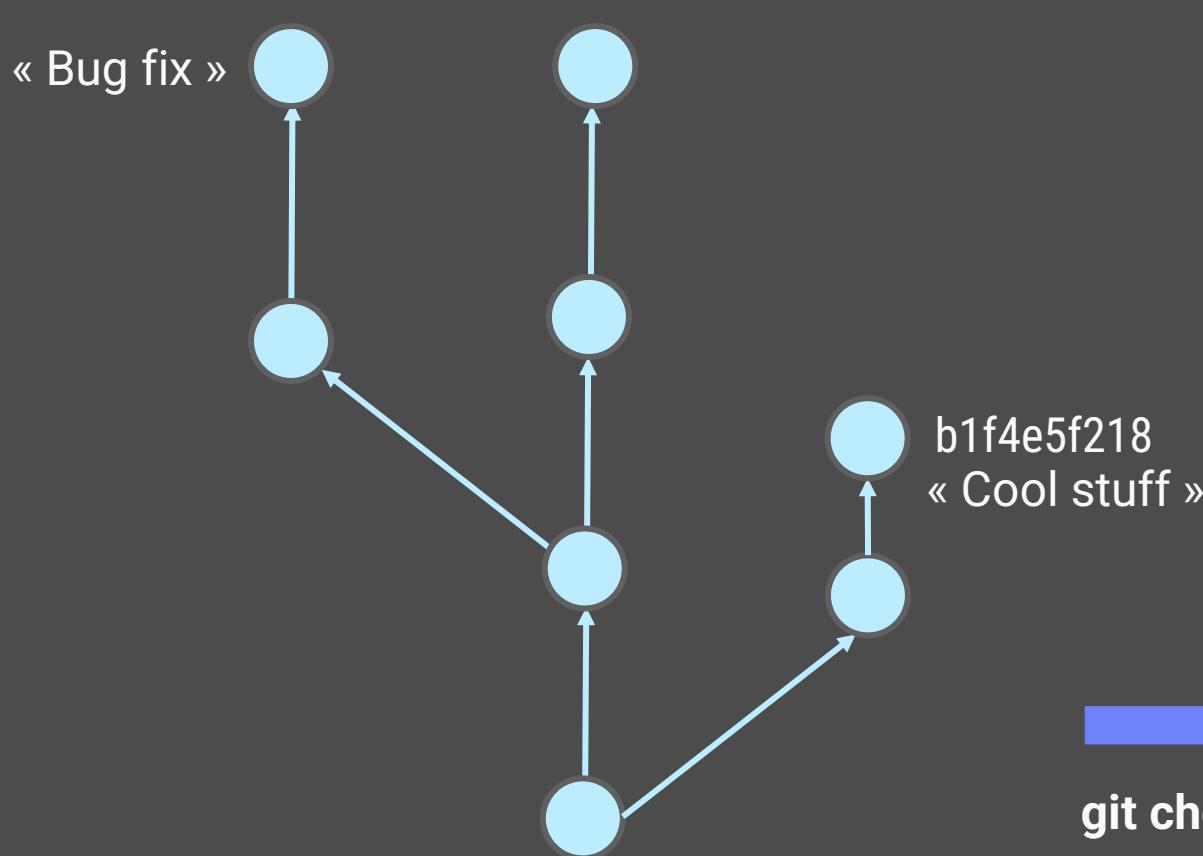
git reset ab4ab8f6e1



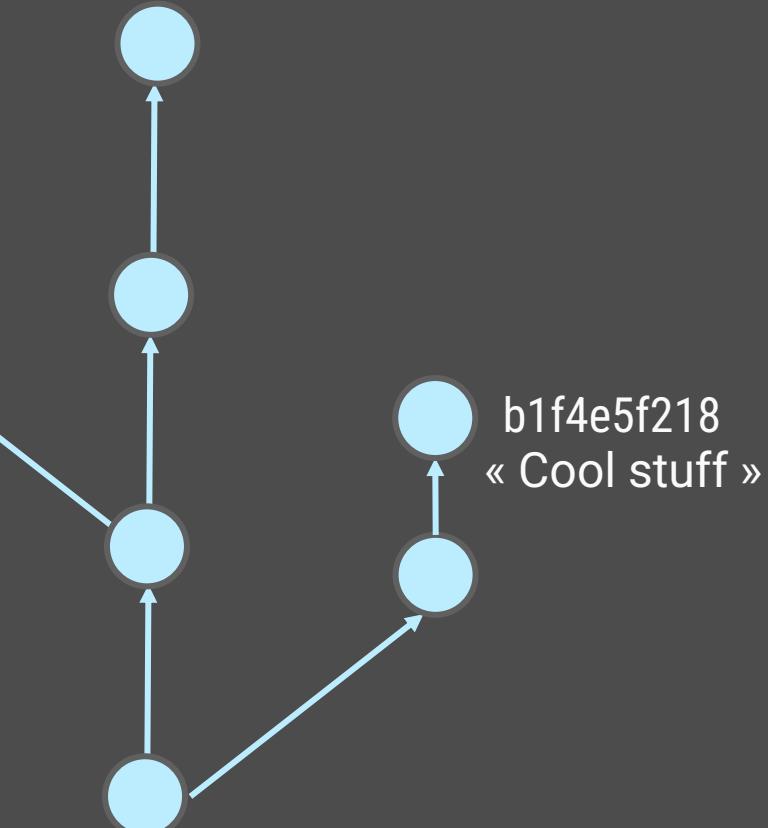
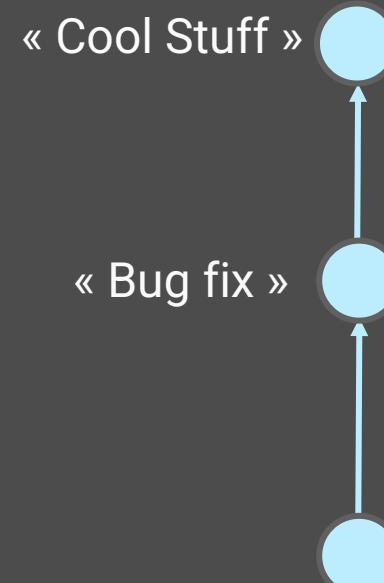
Revert un commit



Cherry-pick



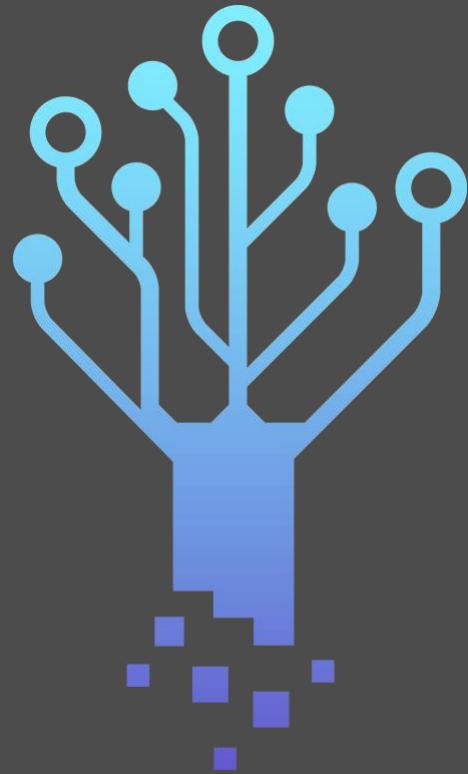
git cherry-pick b1f4e5f218



On passe au TP !

C'est encore l'heure du TP :

- Se rendre sur **<https://gitlab.viarezo.fr/ViaRezo/formation-git>**
- Suivre les indications du README jusqu'à la **fin**
- N'hésitez pas à poser des questions aux staffeurs



POUR ALLER PLUS LOIN

- Une autre ressource
<https://learngitbranching.js.org/>
- CI/CD : Tester son code automatiquement et le déployer (jeudi 13/10 17h)