**GIT:**

It is one of the version control system.

1)To save the project code

2)To keep track of version changes. We go back to previous versions if any requirement arises.

**GITHUB:**

web-based platform that uses git to provide cloud storage for repositories, along with collaboration tools.

**Local Repository:**

This is a copy of the repository which is stored in your computer. You can work on your project and make changes here.

**Remote repositories**

To host the code remotely like Github,gitlab,ADO.

A whiteboard with writing on it

Description automatically generated

After Git init and .git folder is called as working directory.

Add any file goes to staging area

Commit files goes to local repo.

**Fork:**

Entire remote repo(ex:open source) is copied to our remote repo(or)Copy of any repo

**Clone:**

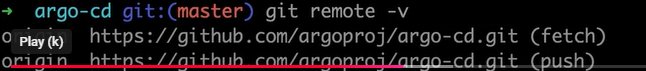
Remote repo is copied to our local folder (or) Pull the code from github

**Log:**

Git log : shows list of commits

**Remote reference:**

Git remote -v



**What is the GIT workflow ?**

Add🡪commit🡪Push

**Branch:**

To work on diff features by multiple team members without hampering the existing code.

Git checkout -b “branchname”

**To merge the child branches to parent branch we can do Cherry-pick/merge/rebase**

**Cherry pick:**

If we have only minimal changes/commits then this option is feasible.

Git cherry-pick <commit-ID>

**Merge:**

Combines code changes from one branch to another branch

Commit/Git history is not linear.

**Rebase:**

Combines code changes from one branch to another branch

Commit history is linear

**Fetch:**

It informs the latest changes that are made to remote repo.It doesnot merge the changes to the local repo.

**Pull:**

It merges the latest remote changes to the local repo.

**.git:**

All the info like remote ,local repo addresses& git history is stored .it should not be deleted.

**.gitignore**

If we don’t want to push any file from local to remote we can mention that particular file in .gitignore file.

**Pre commit hooks:**

To perform any task before a git commit.

**Post commit**

To perform any task after a git commit.

**Webhook:**

To perform any action for git events we can use webhook in GIT

**Stash:**

To temporarily save the changes on working copy.

Stash pop

Can brings tem saved copy to resume.

Developers can switch branches and work on other tasks without affecting the current changes.