Q1.Difference between git init and git clone.

The `git init` command creates a new, empty Git repository in your current folder. It is used when you are starting a project from scratch. This command creates a hidden `.git` folder where Git stores all version control information.

The `git clone` command copies an existing remote repository (like one from GitHub) to your local system. It is used when you want to work on a project that already exists. It automatically connects your local repository to the remote one.

Q2.Difference between git branch and git checkout.

The `git branch` command is used to **create, list, or delete branches** in a repository. It doesn't switch your working directory — it just manages branches. For example, `git branch feature` creates a new branch named *feature*, and `git branch` shows all existing branches.

The `git checkout` command is used to **switch between branches** or to restore files. When you run `git checkout branch_name`, it moves your working directory to that branch, updating files to match that branch's state.

Q3.Difference between git fetch and git pull.

The `git fetch` command downloads the latest changes from the remote repository but **does not merge** them into your local branch. It just updates your remote tracking branches, letting you review the changes before applying them.

The `git pull` command also downloads changes from the remote repository, but it **automatically merges** them into your current local branch. It is essentially a combination of `git fetch` followed by `git merge`.

Q4.How to squash commits?

1.To Find how many commits you want to squash (for example, last 3 commits):

git log —oneline

2.git rebase -i HEAD~3

3.Check final result

git log --oneline

Q5. **`git reset`** → Moves the branch pointer back to a previous commit and **removes** later commits (can change history).

`git revert` → Creates a **new commit** that undoes the changes made by a previous commit (safe for shared repos).

Move branch to a previous commit (dangerous, rewrites history)

it reset —hard 2bf12d8

Undo a specific commit safely (creates new commit)
git revert 2bf12d8

Q6. Delete branch from local and remote.

Local ->git branch -d f1

Remote -> git push origin —delete f1

Extra

linked new branch to remote

Git push -u origin f1