

## Basic Git Commands:

- **git init:**

*Initializes a new Git repository.*

```
`` git init
```

- **git clone <repository\_url>:**

*Clones a repository into a new directory.*

```
`` git clone https://github.com/example/repository.git
```

- **git add <filename> or git add . :**

*Adds changes in the working directory to the staging area.*

```
`` git add myfile.txt
`` git add .    # Adds all changes
```

- **git commit -m "Your commit message":**

*Records changes to the repository with a descriptive message.*

```
`` git commit -m "Add new feature"
```

- **git status:**

*Shows the status of changes as untracked, modified, or staged.*

```
`` git status
```

- **git log:**

*Displays a log of all commits.*

```
`` git log
```

## Branching and Merging:

- **git branch <branch\_name>:**  
*Creates a new branch.*  
``` git branch feature-branch`
- **git checkout <branch\_name> or git switch <branch\_name>:**  
*Switches to the specified branch.*  
``` git checkout feature-branch`
- **git merge <branch\_name>:**  
*Merges changes from one branch into another.*  
``` git merge feature-branch`

## Remote Repositories:

- **git remote add origin <repository\_url>:**  
*Adds a remote repository.*  
``` git remote add origin https://github.com/example/repository.git`
- **git push -u origin <branch\_name>:**  
*Pushes changes to a remote repository.*  
``` git push -u origin main`
- **git pull origin <branch\_name>:**  
*Fetches changes from a remote repository and merges them.*  
``` git pull origin main`

## Advanced Commands:

- **git rebase <branch\_name>:**

*Applies changes from one branch onto another.*

```
`` git rebase feature-branch
```

- **git cherry-pick <commit\_hash>:**

*Picks a commit from another branch and applies it.*

```
`` git cherry-pick abc123
```

- **git reset --hard <commit\_hash>:**

*Resets the current branch to a specific commit.*

```
`` git reset --hard abc123
```

- **git stash:**

*Temporarily saves changes that are not ready to be committed.*

```
`` git stash
```

*These commands cover a broad range of Git functionality, but it's important to use them with caution, especially the more advanced ones. Always be aware of the impact each command can have on your repository.*