| **1. ConfigurationCommand** | **Description** |
| --- | --- |
| git config --global user.name "Your Name" | Set your Git username |
| git config --global user.email "your.email@example.com" | Set your Git email |
| git config --list | Show all configured settings |

**2. Repository Initialization**

| **Command** | **Description** |
| --- | --- |
| git init | Initialize a new Git repository |
| git clone <repository\_url> | Clone an existing repository |

**3. Staging & Committing**

| **Command** | **Description** |
| --- | --- |
| git status | Check the status of your repository |
| git add <file> | Add a specific file to staging |
| git add . | Add all changes to staging |
| git commit -m "Commit message" | Commit staged changes |
| git commit -am "Commit message" | Add and commit changes in one step |

**4. Branching & Merging**

| **Command** | **Description** |
| --- | --- |
| git branch | List all branches |
| git branch <branch\_name> | Create a new branch |
| git checkout <branch\_name> | Switch to a branch |
| git checkout -b <branch\_name> | Create and switch to a new branch |
| git merge <branch\_name> | Merge a branch into the current branch |
| git branch -d <branch\_name> | Delete a branch |

**5. Pushing & Pulling**

| **Command** | **Description** |
| --- | --- |
| git remote add origin <repository\_url> | Add a remote repository |
| git push -u origin <branch\_name> | Push changes to the remote repository |
| git pull origin <branch\_name> | Fetch and merge changes from the remote repository |
| git fetch | Fetch changes from the remote repository without merging |

**6. Undoing Changes**

| **Command** | **Description** |
| --- | --- |
| git reset <file> | Unstage a file |
| git reset --hard <commit\_hash> | Reset to a previous commit (deletes changes) |
| git revert <commit\_hash> | Revert a commit by creating a new commit |

**7. Logs & History**

| **Command** | **Description** |
| --- | --- |
| git log | View commit history |
| git log --oneline --graph | View a compact history graph |
| git diff | Show changes between commits, branches, or working directory |