Here's a list of essential Git and GitHub commands with examples:

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## 1. Git Configuration

Set up user information for all repositories.

```
git config --global user.name "Your Name"
git config --global user.email "your.email@example.com"
```

Check the configuration:

```
git config --list
```

---

## 2. Initializing a Repository

Create a new local Git repository.

```
git init
```

Clone an existing GitHub repository:

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

---

## 3. Staging and Committing

Check the status of the repository:

```
git status
```

Add specific files to staging:

```
git add file.txt
```

Add all files to staging:

```
git add .
```

Commit changes with a message:

```
git commit -m "Initial commit"
```

---

## 4. Branching

Create a new branch:

```
git branch new-branch
```

Switch to the new branch:

```
git checkout new-branch
```

Create and switch to a new branch in one command:

```
git checkout -b new-branch
```

List all branches:

```
git branch
```

Delete a branch:

```
git branch -d branch-name
```

## 5. Pushing and Pulling

Push changes to GitHub:

```
git push origin branch-name
```

Pull latest changes from GitHub:

```
git pull origin branch-name
```

## 6. Merging and Rebasing

Merge a branch into the current branch:

```
git merge branch-name
```

Rebase a branch:

```
git rebase branch-name
```

## 7. Undoing Changes

Discard changes in a file:

```
git checkout -- file.txt
```

Unstage a file (keep changes):

```
git reset file.txt
```

Reset last commit (soft keeps changes, hard deletes them):

```
git reset --soft HEAD~1
git reset --hard HEAD~1
```

---

## 8. Working with Remotes

Add a remote repository:

```
git remote add origin https://github.com/user/repository.git
```

Check remote URLs:

```
git remote -v
```

Remove a remote:

```
git remote remove origin
```

---

## 9. Tags

List all tags:

```
git tag
```

Create a new tag:

```
git tag -a v1.0 -m "Version 1.0"
```

Push tags to GitHub:

```
git push origin --tags
```

---

## 10. Stashing Changes

Save changes temporarily:

```
git stash
```

Apply stashed changes:

```
git stash pop
```

List all stashes:

```
git stash list
```

---

## 11. Logs and History

View commit history:

```
git log
```

View commit history in one line:

```
git log --oneline
```

View changes in a commit:

```
git show commit-hash
```

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These are the most commonly used Git and GitHub commands. Let me know if you need any specific details! 🚀