

Git and GitHub: Commonly Used Commands

Configuration

1. Set Username:

```
git config --global user.name "Your Name"
```

2. Set Email:

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

Basic Commands

1. Initialize a New Repository:

```
git init
```

2. Clone an Existing Repository:

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

3. Check Repository Status:

```
git status
```

4. Add Files to Staging Area:

```
git add filename
```

To add all files:

```
git add .
```

5. Commit Changes:

```
git commit -m "Commit message"
```

6. View Commit History:

```
git log
```

Branching

1. Create a New Branch:

```
git branch branch_name
```

2. Switch to a Different Branch:

```
git checkout branch_name
```

3. Create and Switch to a New Branch:

```
git checkout -b new_branch_name
```

4. Merge a Branch into the Current Branch:

```
git merge branch_name
```

Remote Repositories

1. Add a Remote Repository:

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

2. Push Changes to a Remote Repository:

```
git push origin branch_name
```

3. Pull Changes from a Remote Repository:

```
git pull origin branch_name
```

4. Fetch Changes from a Remote Repository:

```
git fetch origin
```

Undoing Changes

1. Unstage a File:

```
git reset HEAD filename
```

2.Revert a Commit:

```
git revert commit_id
```

Collaboration

1. Create a Pull Request: On GitHub, navigate to your repository, click on "Pull Requests," and then click on "New pull request."

2. Merge a Pull Request: On GitHub, navigate to the pull request, review the changes, and click "Merge pull request."