

Git and GitHub Guide

Table of Contents

1. [Setting Up Git](#)
2. [Basic Git Commands](#)
3. [Branching](#)
4. [Pushing to GitHub](#)
5. [Merging Branches](#)

Setting Up Git

1. **Install Git:** Download and install Git from git-scm.com.
2. **Configure Git:**

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

Note: Use the same email address for Git that you use for GitHub.

Basic Git Commands

Use this commands on your project folder in the terminal.

1. **Initialize a Repository:**

```
git init
```

2. **Clone a Repository:**

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

3. **Check Status:**

```
git status
```

4. **Add Changes:**

```
git add .
```

5. Commit Changes:

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

Pushing to GitHub

1. Add Remote:

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

2. Push to Remote Repository:

```
git push -u origin main
```

Note: If your branch name is `master`, rename it to `main` before pushing:

```
git branch -M main
```

after you complete this for first time, you can use `git push` to push your changes to the remote repository.

3. Push a Branch:

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

Use this if you want to push a branch other than `main`.

Branching

1. Create a New Branch:

```
git branch new-branch
```

2. Switch to a Branch:

```
git checkout new-branch
```

3. Create and Switch to a New Branch:

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

4. List Branches:

```
git branch
```

Merging Branches

1. Merge a Branch into Current Branch:

```
git merge branch-name
```

2. Resolve Merge Conflicts: Edit the conflicted files and then:

```
git add .  
git commit -m "Resolved merge conflicts"
```

Additional Resources

- [Git Documentation](#)
- [GitHub Guides](#)