

Setting Up Git on Mac

Follow these steps to install and configure Git on your Mac.

1 Check If Git is Installed

Open **Terminal** and run:

```
bash
CopyEdit
git --version
```

If Git is installed, you'll see the version number, e.g.:

```
nginx
CopyEdit
git version 2.39.3
```

If not, follow the next step to install it.

2 Install Git on Mac

Method 1: Install via Homebrew (Recommended)

1. Install Homebrew (if not already installed)

```
bash
CopyEdit
/bin/bash -c "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/HEAD/install.sh)"
```

2. Install Git using Homebrew

```
bash
CopyEdit
brew install git
```

3. Verify the Installation

```
bash
CopyEdit
git --version
```

Method 2: Install via Xcode Command Line Tools

Mac comes with a built-in version of Git through Xcode Command Line Tools. To install:

```
bash
CopyEdit
xcode-select --install
```

Once installed, check the version:

```
bash
CopyEdit
git --version
```

3 Configure Git with Your Name and Email

After installation, set up your identity:

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

✓ This is required for tracking commits properly.

4 Verify Git Configuration

Run the following command to check your settings:

```
bash
CopyEdit
git config --list
```

Expected output:

```
ini
CopyEdit
user.name=Your Name
user.email=your-email@example.com
```

5 Set Up SSH Key for GitHub (Optional but Recommended)

To avoid entering your password repeatedly while pushing to GitHub, set up SSH authentication:

◆ Generate an SSH Key

```
bash
CopyEdit
ssh-keygen -t rsa -b 4096 -C "your-email@example.com"
```

Press **Enter** for default file location (`~/.ssh/id_rsa`).

◆ Add SSH Key to GitHub

1. Copy the SSH key:

```
bash
CopyEdit
cat ~/.ssh/id_rsa.pub
```

2. Go to **GitHub** → **Settings** → **SSH and GPG keys** → **New SSH key**
3. Paste the copied key and save it.

◆ Test the SSH Connection

```
bash
CopyEdit
ssh -T git@github.com
```

If successful, you'll see:

```
vbnet
CopyEdit
Hi <username>! You've successfully authenticated, but GitHub does not provide shell access.
```

6 Clone a Repository & Start Using Git

To clone a repository from GitHub:

```
bash
CopyEdit
git clone git@github.com:your-username/repository-name.git
```

Navigate into the cloned folder:

```
bash
CopyEdit
cd repository-name
```

Start tracking files with Git! 🎉

Next Steps

- ✓ Practice Git commands like `git add` , `git commit` , `git push`
- ✓ Set up `.gitignore` for ignoring unnecessary files
- ✓ Create a test project and push it to GitHub