

# Git Tutorial



Building Modern Web Applications - VSP2025

# Git Tutorial

1. Install Git / Create accounts on GitHub
2. Setup SSH Keys for Git
3. Clone repository, Commit changes, Push/Pull from repository
4. Branching

# Step 1 - Git Setup

- Download and Install Git

<https://git-scm.com/downloads>



- Use “Git bash” command line window to write git commands
- Create accounts on GitHub (if not already done)



## Step 2 - How to setup SSH Keys for Git - Part A

<https://docs.github.com/en/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent>

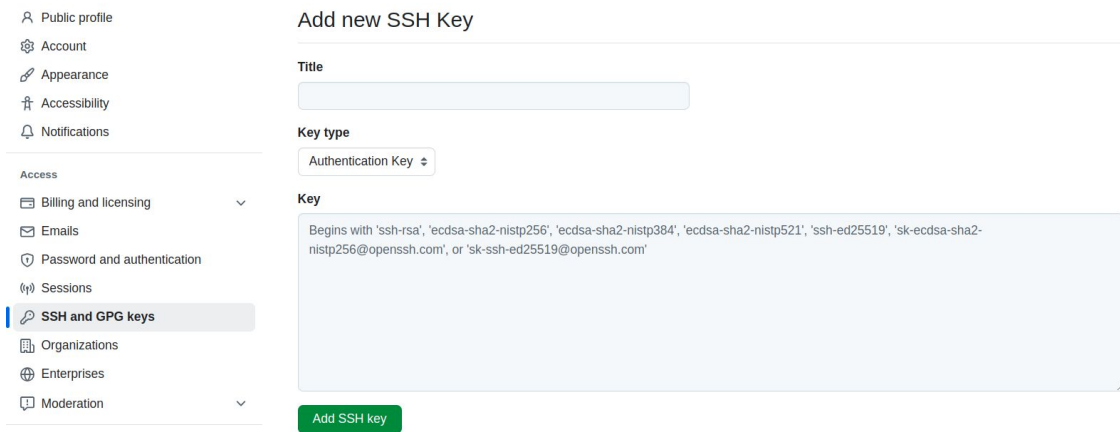
1. Open Terminal
2. `ssh-keygen -t ed25519 -C "your\_email@example.com"`
3. Setup passphrase
4. `eval "$(ssh-agent -s)"`
5. `ssh-add ~/.ssh/id_ed25519`

**Disclaimer:** Instructions may differ slightly depending on your OS!!!

# Step 2 - How to setup SSH Keys for Git - Part B

<https://docs.github.com/en/authentication/connecting-to-github-with-ssh/adding-a-new-ssh-key-to-your-github-account>

1. Type on your terminal: `cat ~/.ssh/id_ed25519.pub`
2. Copy the output to your clipboard. Then, go to GitHub Profile / Settings / SSH and GPG Keys. Enter the SSH Key that was just generated locally.



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### Add new SSH Key

**Title**

**Key type**

Authentication Key

**Key**

Begins with 'ssh-rsa', 'ecdsa-sha2-nistp256', 'ecdsa-sha2-nistp384', 'ecdsa-sha2-nistp521', 'ssh-ed25519', 'sk-ecdsa-sha2-nistp256@openssh.com', or 'sk-ssh-ed25519@openssh.com'

Add SSH key

# Step 3 - Git Commands: Clone, Commit, Pull, Push

`git clone`

`git pull origin master`

`git status`

`git add .`

`git commit -m "Some Commit message"`

`git push origin master`

# Step 4 - Creating Branches

git branch assignment-X

git checkout assignment-X

git push -u origin assignment-X

git checkout master

git branch

git branch -r

