

# 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.

Public profile  
Account  
Appearance  
Accessibility  
Notifications

Access

Billing and licensing  
Emails  
Password and authentication  
Sessions  
**SSH and GPG keys**  
Organizations  
Enterprises  
Moderation

### 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 main

git status

git diff

git add .

git commit -m "Some Commit message"

git push origin main

# Step 4 - Creating Branches

git branch assignment-X

git checkout assignment-X

git push -u origin assignment-X

git checkout main

git branch

git branch -r

