

Sure! I can help you make your notes concise and organized into a clean **Git & GitHub Cheat Sheet**. Here's a polished version of your learning notes:

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# Git & GitHub Cheat Sheet

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## Why Git?

- Enables collaboration from anywhere.
- Tracks full history of code.
- Easy to fix mistakes or revert changes.

## What is Git?

- Distributed Version Control System (DVCS).
- Open-source tool for tracking code and changes in projects.

## What is GitHub?

- Git is the tool; GitHub is a cloud-based hosting service for Git repositories.
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## SSH Key Concept

- Provides secure, password-less authentication.
  - After generating SSH key, add it to GitHub to clone private repos locally.
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## Basic Git Commands

Command	Purpose
<code>git --version</code>	Check installed Git version

Command	Purpose
<code>git config --global user.name "name" git config --global user.email "email"</code>	Set author info for commits
<code>git init</code>	Initialize a Git repository in the current folder
<code>git status</code>	View untracked, modified, and staged files
<code>git add .</code>	Stage all changes for commit
<code>git commit -m "message"</code>	Create a snapshot of the project
<code>git checkout -b branch_name</code>	Create & switch to a new branch
<code>git merge branch_name</code>	Merge another branch into current branch
<code>git push</code>	Send local commits to remote repository
<code>git pull</code>	Update local branch with changes from remote
<code>git restore &lt;file&gt;</code>	Undo changes in a file or unstage it

## Advanced Git Commands

Command	Purpose
<code>git cherry-pick &lt;commit&gt;</code>	Apply a specific commit from one branch to another
<code>git rebase &lt;branch&gt;</code>	Move your branch's commits on top of another branch
<b>Merge vs Rebase</b>	Merge: Creates a merge commit, branched history Rebase: No merge commit, linear history

## Handling Merge Conflicts

- Create two branches (e.g., `dev` & `dev2`).
- Edit same file in both branches.

- When merging, Git will show conflicts to resolve manually.

GIT CLONE ...