

Getting Started with Git and GitHub

Module 2 Cheat Sheet: Git Commands and Managing GitHub Projects

Package/Method	Description	Code Example
git add	Used to move changes from the working directory to the staging area	git add sample.md
git add .	Allows to move the changed files into the staging area on GitHub repositories	git add .
git am	Used to apply patches emailed to the repository	git am < patchfile.patch
git branch	Allows to create an isolated environment within the repository to make changes	git branch <new-branch>
git checkout	Allows to see and change existing branches	git checkout <existing-branch>
git checkout main	Allows to switch to the main branch	git checkout main
git clone	Allows to create a copy of the remote repository	git clone <repository-url>
git commit	Allows you to take staged snapshots if changes and commit them to the project	git commit -m "Your commit message here"
git config --global user.email	Example 1: Sets a global email configuration for Git Example 2: Sets a global username configuration for Git	Example 1: git config --global user.email "your.email@example.com" Example 2: git config --global user.name "Your Name"
git daemon	Used to allow anonymous download from the repository	git daemon --reuseaddr --verbose
git diff	Helps others to review your code to identify and compare the changes	git diff example.txt
git fetch	Used to transfer the changes from the remote repo to your local repo	git fetch <options> <remote name> <branch name>
git fetch upstream/master	Used to grab upstream branches	git fetch upstream master:upstream-master
git format-patch	Generates or prepares e-mail submission if you adopt Linux kernel-style public forum workflow	git format-patch -n <number_of_commits>
git http-backend	Provides a server-side implementation of Git-over-HTTP, allowing both fetch and push services	git clone --bare /path/to/repos/myrepo.git cd myrepo.git git update-server-info
git init	Used to clone an existing repository	git init <directory>
git instaweb	Allows to set up web front-end to Git repositories	git instaweb -p 8080

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git log	Enables to browse previous changes to a project	<code>git log -p filename</code>
git merge	Used to merge changes in the active branch into another branch	<code>git merge feature_branch</code>
git merge upstream/master	Merges changes from the 'upstream/master' branch to the current branch	<code>git merge upstream/master</code>
git pull	Used to transfer the changes from the remote repo to your local repo, and merge them to a branch	<code>git pull origin main</code>
git pull downstream	Pulls changes from a downstream repository, specifically from the master branch of that repository	<code>git pull downstream main</code>
git pull upstream	Pulls changes from the "upstream" repository into the current branch	<code>git pull upstream main</code>
git push	Used to push all the committed changes into the repository	<code>git push origin your_branch_name</code>
git remote	A command to manage a set of tracked repositories	<code>git remote add upstream https://github.com/original/repo.git</code>
git remote add origin <URL>	Adds a remote repository named "origin" with the specified URL	<code>git remote add origin https://github.com/yourusername/your-repo.git</code>
git remote add upstream	Adds the original repository as a new remote repository labeled upstream	<code>git remote add upstream https://github.com/original/repo.git</code>
git remote rename	The git remote rename command is followed by the name of the remote repository(origin) you want to rename and the new name(upstream) you want to give it	<code>git remote rename origin new-origin</code>
git remote -v	Allows to view the remotes associated with the local repository	<code>git remote -v</code>
git request-pull	Example 1: Creates a summary of changes for your upstream to pull Example 2: Generates a summary of pending changes for an email request	Example 1: <code>git request-pull origin/main your-branch</code> Example 2: <code>git request-pull <base> <head> <repository></code>
git rerere	Reuses recorded resolution of previously resolved merge conflicts	<code>git rerere</code> <code>git rerere diff</code>
git reset	Undoes changes that were made to the files in your working directory	<code>git reset HEAD~1</code>
git revert	Used to undo botched commits	<code>git revert HEAD</code>
git send-email	Example 1: Sends your email submission without corruption by your MUA Example 2: Sends a collection of patches as emails	Example 1: <code>git send-email --to=recipient@example.com path/to/patchfile.patch</code> Example 2:

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		<code>git send-email --to recipient@example.com patches/*.patch</code>
git-shell	Used as a restricted login shell for shared central repository users	<code>sudo usermod -s /usr/bin/git-shell gituser</code>
git status	Allows to see the state of your working directory and the staged snapshot of the changes	<code>git status</code>
git version	Displays the current Git version installed on your system	<code>git --version</code>
git web	Provides a web front-end to Git repositories	<code>git instaweb --port=8080</code>

