Linux Academy

Study Guide

Git Cheat Sheet

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Global Configuration Commands

- **`git config --global user.name <name>`** • Configures the default repository username
- **`git config --global user.email <email>`** • Configures the default repository user email address
- **`git config --system core.editor <editor>`** • Sets the default editor for commits and/or diffs
- **`git config --global alias.<aliasname> 'git commands'`** • Allows you to create an alias for common git commands

Basic Commands

- **`git init <dirname>`** • Creates an empty repository in the directory **`dirname`** and initializes that repository
- **`git clone <repo>`** • Clones and indicates remote or local repo by SSH/HTTP/HTTPS to the current directory
- **`git add <file/dir>`** • Adds the indicated files, staging them to be committed to the repository
- **`git commit -m "Message"`** • Commits all the staged files (new/changes) to the current repository in the active branch
- **`git status`** • Displays the status of the current repository's files and directories (untracked/staged)
- **`git rm <file/dir>`** • Removes a file from the existing repo cache, staging it for removal during next commit

Logging Commands

- **`git log`** • Displays all commits to the current repository, all branches, newest to oldest
- **`git log -p`** • Displays all commits, with the backend statistics indicating all changes/adds/deletes
- **`git log --oneline`** • Displays all commits by short ID and commit message
- **`git log --stat`** • Displays all commits, including which files are changed and the number of lines added/deleted from each

- **`git log --author="name"`** • Displays all commits by indicated author
- **`git log --grep="value"`** • Displays all commits with text values matching the indicated value
- **`git log --graph --decorate`** • Draws a text-based graph of the commits and commit messages with names of branches/tags

Branching and Merging Commands

- **`git branch`** • Indicates the current/active branch
- **`git branch <name>`** • Creates a new branch with the indicated name
- **`git checkout <name>`** • Changes the active branch to the indicated name, if exists
- **`git checkout -b <name>`** • Creates a new branch with the indicated name and changes to the new branch
- **`git merge <name>`** • Merges all changes/additions/deletions from the indicated branch to the current/active branch

Update/Push Commands

- **`git push <remote> <branch>`** • Pushes changes from the local copy to the original repository on the indicated branch, creating the branch if it does not exist
- **`git push <branch>`** • Forces a push to the remote repository even if it would result in merge errors
- **`git push <remote> --all`** • Pushes all changes from all local branches to the original repository on the indicated branches, creating them if they do not exist