GIT Cheatsheet

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// GIT Cheatsheet

// Repository
git init                          // Initialize a new Git repo
git clone <repo-url>              // Clone a repo from a URL

// Basics
git status                        // Show changes status
git add <file>                    // Add changes to staging
git commit -m "Message"           // Commit changes with a message
git log                           // View commit history

// Branching
git branch                        // List branches
git branch <branch-name>          // Create a new branch
git checkout <branch-name>        // Switch to a branch
git merge <branch-name>           // Merge changes from a branch
git branch -d <branch-name>       // Delete a branch

// Remote Repositories
git remote                        // List remotes
git remote add <name> <url>       // Add a remote
git push <remote> <branch>        // Push changes to a remote
git pull <remote> <branch>        // Pull changes from a remote

// Undoing Changes
git pull                          // Fetch and merge changes
git fetch                         // Fetch changes without merging
git reset --hard HEAD             // Discard changes
git revert <commit-hash>          // Revert changes in a commit
```

https://medium.com/@suadabdullahal/master-git-a-complete-guide-to-setup-and-essential-commands-07cfac1c8b12

https://gossamer-poppyseed-9a1.notion.site/Module-3-Git-Github-Source-control-Hosting-170a01057ab9808eae27ecc28f0ea6b3

Git Setup
To install Git, visit this URL: https://git-scm.com/. Once the setup is complete, you will get a Git Bash application and a command-line environment. Opening it will provide you with a terminal window.

To check the installed Git version, use the following command in the terminal:

> git --version
Git Configuration

To configure Git with your name and email, open your terminal and run the following commands:

> git config --global user.name "Abdullah Al Suad"
> git config --global user.email "suad@gmail.com"

Git Initialization
To initialize a Git repository in a directory, navigate to the directory in your terminal and run:

> git init

Basic Git Commands
To push your code to GitHub, use the following commands sequentially:

> git add .
> git commit -m "Your Message Here"
> git push -u origin main

After executing these commands, your code will be available on GitHub.

Advanced Git Commands
Branch Management
To manage branches, use these commands:

// View all branches
> git branch

// Create a new branch
> git branch new-branch
// Switch to a specific branch
> git checkout new-branch
// Delete a specific branch
> git branch -D new-branch

// Shortcut to create and switch to a new branch
> git checkout -b new-branch

Push Code to a New Branch
To push code to a new branch:

> git add .
> git commit -m "New branch push"
> git push origin new-branch

Merge Branches
To merge a branch into the main branch:

> git merge new-branch

View Changes Between Commits
To view differences between specific commits, use:

> git log // to see commit hash
> git diff <commit-hash-1> <commit-hash-2>

Additional Git Commands
Check the status of your repository:
> git status

View commit history:
> git log

Pull the latest changes from the remote repository:
> git pull origin main

Clone a repository:
> git clone <GitHub Repo URL> [Local Directory Name (optional)]