Linux Commands and Git Configuration

This document provides essential Linux commands and instructions for configuring Git, aimed at beginners and intermediate users.

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Basic Linux Commands

- **ls** – List all files in the directory

- **mkdir** – Make a directory

- **cd** – Change directory

- **cd ..** – Go back 1 folder

- **ls -a** – Show all files, including hidden ones

Working with Files and Directories

- **touch hey.txt** – Create a file named hey.txt

- **rm hey.txt** – Delete a file named hey.txt

- **cat filename.ext** – Open a file

Git Configuration

1. **git config --global user.name "ashish-nagmoti"** - Set your Git username

2. **git config --global user.email "ashishnagmoti5@gmail.com"** - Set your Git email

3. **git config --list** - View the changes made in the Git configuration

Working with Git Repositories

Learn the basics of working with Git repositories, creating commits, and managing branches.

1 **Initialize Repository**

Use **git init** to initialize a repository in a folder

2 **Check Repository Status**

Use **git status** to check the status of the repository and files

3 **Add and Commit Changes**

Use **git add** and **git commit -m "msg"** to add and commit changes

Collaborating with GitHub

Understand the basic commands for interacting with remote repositories on GitHub.

- **git remote add origin [github_repo_link]** – Link local files to GitHub branch

- **git push -u origin branch_name** – Push to a remote repository

- **git branch** – Show all available branches

GitHub Workflow

Learn about forking repositories, updating forks, resolving conflicts, and other essential GitHub workflows.

Cloning a Repository

Use **git clone [URL]** to clone a public repository

Updating a Forked Repository

Use **git fetch upstream** to update the forked repository

Advanced Git Techniques

Explore advanced techniques for managing commits and merging branches efficiently.

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Merge Conflict

Resolve conflict when two branches have conflicting changes

Squashing Commits

Combine multiple commits into a single one using git rebase -i

Additional Tools and Resources

Discover helpful tools, tips, and resources for enhancing your workflow with Git and Linux.

1 **Visual Studio Code Extension**

Use the Git extension in VS Code for a user-friendly interface

2 **GitHub.dev**

Explore the web-based VS Code for direct access to GitHub repositories