Linux & Git-GitHub Cheat Sheet

Linux Commands

Basic Commands

- `ls`: List directory contents.
  - **Example:** `ls -l` (detailed list)
- `cd`: Change directory.
  - **Example:** `cd /home/user`
- `pwd`: Show current directory.
  - **Example:** `pwd`
- `mkdir`: Create a new directory.
  - **Example:** `mkdir new_folder`
- `rm`: Remove files or directories.
  - **Example:** `rm file.txt` (file), `rm -r folder` (directory)

File Manipulation

- `cp`: Copy files or directories.
  - **Example:** `cp source.txt destination.txt`
- `mv`: Move or rename files or directories.
  - **Example:** `mv oldname.txt newname.txt`
- `cat`: Display file contents.
  - **Example:** `cat file.txt`
- nano/`vim`: Edit files.
  - **Example:** `nano file.txt`
  - `Example:vim file.txt`

System Information

- `top`: Show real-time system information.
  - **Example:** `top`
- `df`: Check disk space.
  - **Example:** `df -h`
- `free`: Check memory usage.

    - **Example:** `free -m`

Git Commands

Basic Commands

- `git init`: Start a new Git repository.
    - **Example:** `git init`
- `git clone`: Copy an existing repository.
    - **Example:** `git clone https://github.com/user/repo.git`
- `git status`: Check the status of your files.
    - **Example:** `git status`
- `git add`: Stage changes.
    - **Example:** `git add file.txt`
- `git commit`: Save changes.
    - **Example:** `git commit -m "commit message"`

Branching & Merging

- `git branch`: Manage branches.
    - **Example:** `git branch new-branch`
- `git checkout`: Switch branches or restore files.
    - **Example:** `git checkout new-branch`
- `git merge`: Combine branches.
    - **Example:** `git merge new-branch`

Remote Repositories

- `git remote`: Connect to remote repositories.
    - **Example:** `git remote add origin https://github.com/user/repo.git`
- `git push`: Send changes to a remote repository.
    - **Example:** `git push origin main`
- `git pull`: Get changes from a remote repository.
    - **Example:** `git pull origin main`

Additional Tips

- **Aliases:** Create shortcuts for commands.

    - **Example:** `alias gs='git status'`
- **Bash Scripts:** Automate tasks with scripts.