Git Cheat Sheet

1. Create a New Repository

- Initialize a repository:
  git init
- Link to GitHub:
  git remote add origin <repository-URL>
- Push the initial commit:
  git push -u origin main
- Tell git who you are (once per system):

  Git config –global user.name “...”

2. Download an existing repository

- **Git clone <repository url or ssh>**

  git@github.com:siirias/testing-basic-gitting.git
  https://github.com/siirias/testing-basic-gitting.git

3. Add, Commit, and Push Changes

- Add all changes:
  git add .
- Commit changes:
  git commit -m "Your commit message"
- Push to GitHub:
  git push

4. Pull Changes

- Pull the latest changes:
  git pull

5. Check Differences

- Unstaged changes:
  git diff
- Staged changes:
  git diff --staged
- Between two commits:
  git diff <commit1> <commit2>

6. View History

- Full history:
  git log
- Compact view:
  git log --oneline

7. Revert to an Earlier Version

- View an old commit (detached state):
  git checkout <commit-hash>
- Restore to an earlier commit permanently:
  git reset --hard <commit-hash>

8. Copy or Restore a Single File

- View an old file:
  git show <commit-hash>:<file-path>
- Restore a file:
  git checkout <commit-hash> -- <file-path>
- Make a copy of old file:

  git show <commit-hash>:<file-path> > /path/to/desired/location/<new-file-name>

9. Undo Mistakes

- Undo last commit (keep changes):
  git reset --soft HEAD~1
- Discard unstaged changes:
  git checkout -- <file>
- Unstage changes:
  git reset <file>

10. Daily Essentials

- Check repository status:
  git status
- Push and pull workflow:
  git add .
- git commit -m "Your message"
- **git push**
- **git pull**

11. Misc

- Move a file (so that git realizes it’s still the same file):
  git mv old_name new_name
- **Ssh key generation (not really a git command)**
  Ssh-keygen -t ed25519 -C “email”