

C-Py WORKFLOW Notes for Git

- If you're new to Git and GitHub, get comfortable with the basics before contributing.
- Experienced contributors might prefer different approaches.
- Useful: Set up Git aliases for common tasks.

FORK & CLONE

1. **Fork:** Go to `https://github.com/python/cpython` and press 'Fork'.
2. **Clone:** `git clone git@github.com:<username>/cpython.git`
3. **Configure Upstream:**

```
cd cpython
git remote add upstream https://github.com/python/cpython
```

CONFIGURE REMOTES

- Pull from upstream:
 - `git config --local branch.main.remote upstream`
- Push to origin:
 - `git remote set-url --push upstream git@github.com:<username>/cpython.git`

VERIFY REMOTES

- List remotes:
 - `git remote -v`
- Check upstream for main:
 - `git config branch.main.remote`

GIT BASICS

- **Name & Email:**
 - `git config --global user.name "Your Name"` and `git config --global user.email your.email@example.com`
- **Windows Line Endings:**
 - `git config --global core.autocrlf input`
- **Switch/Create Branch:**
 - `git switch -c <branch-name> main`
- **Delete Local Branch:**
 - `git switch main; git branch -D <branch-name>`
- **Delete Remote Branch:**
 - `git push origin -d <branch-name>`

Working with Changes

- **Status:**
 - `git status`
- **Stage:**
 - `git add -p` or `git add <filename1> <filename2>`
- **Commit:**
 - `git commit -m "Message"`
- **Revert:**
 - `git checkout <filename>` or `git reset --hard HEAD`
- **Stash:**
 - `git stash` and `git stash pop`
- **Diff:**
 - `git diff` or `git diff main`

- Create a Pull Request on `https://github.com/python/cpython`.
- Link to issues and PRs using `gh-NNNNN`.
- Mention issue number in the PR title: `gh-NNNNN: <PR Title>`.

Update Your Fork

- **Update Main:**

```
git switch main
git pull upstream main
git push origin main
```

- **Update Branch:**

```
git switch some-branch
git fetch upstream
git merge upstream/main
git push origin some-branch
```

Miscellaneous

- **Apply Patch:** `git apply /path/to/patch.diff`
- **Check Out PR Locally:** `gh pr checkout <pr_number>` or `hub pr checkout <pr_number>`
- **Merging a PR:** Core Developers can merge PRs after passing all required checks.