01

GIT

CHEAT SHEET

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02

CREATE

From existing data

```
cd ~/projects/myproject
git init
git add .
```

From existing repo

```
git clone ~/existing/repo ~/new/repo
git clone you@host.org:dir/project.git
```

default protocol is **ssh**

Remote repository for existing local data

```
mkdir repo.git && cd repo.git
git init --bare [--shared=group]
```

UPDATE

Fetch latest changes from origin

```
git fetch
```

this does not merge them

Pull latest changes from origin

```
git pull
```

does a fetch followed by a merge

Apply a patch that someone sent you

```
git am -3 patch.mbox
```

In case of conflict, resolve the conflict and

```
git am --resolve
```


03

PUBLISH

Commit all local changes
git commit -a

Prepare a patch for other developpers
git format-patch origin

Push changes to origin
git push [origin] [branch]

Make a version or milestone
git tag <version_name>

BRANCH

Switch to the BRANCH branch
git checkout <BRANCH>

Merge branch B1 into branch B2
git checkout <B2>
git merge <B1>

Create branch based on HEAD
git branch <BRANCH>

Create branch based on another
git checkout <new> <base>

Delete a branch
git branch -d <branch>

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04

REVERT

Return to the last committed state

git checkout -f | git reset --hard

⚠ you cannot undo a hard reset

Revert the last commit

git revert HEAD

Creates a new commit

Revert specific commit

git revert $id

Creates a new commit

Fix the last commit

git commit -a --amend

after editing the broken files

Checkout the ID version of a file

git checkout <ID> <file>

SHOW

Files changed in working directory

git status

Changes to tracked files

git diff

Changes between ID1 and ID2

git diff <ID1> <ID2>

05

History of changes
git log

History of changes with files changed
git whatchanged

Who changed what and when in a file
git blame <file>

A commit identified by ID
git show <ID>

A specific file from a specific ID
git diff <ID>:<FILE>

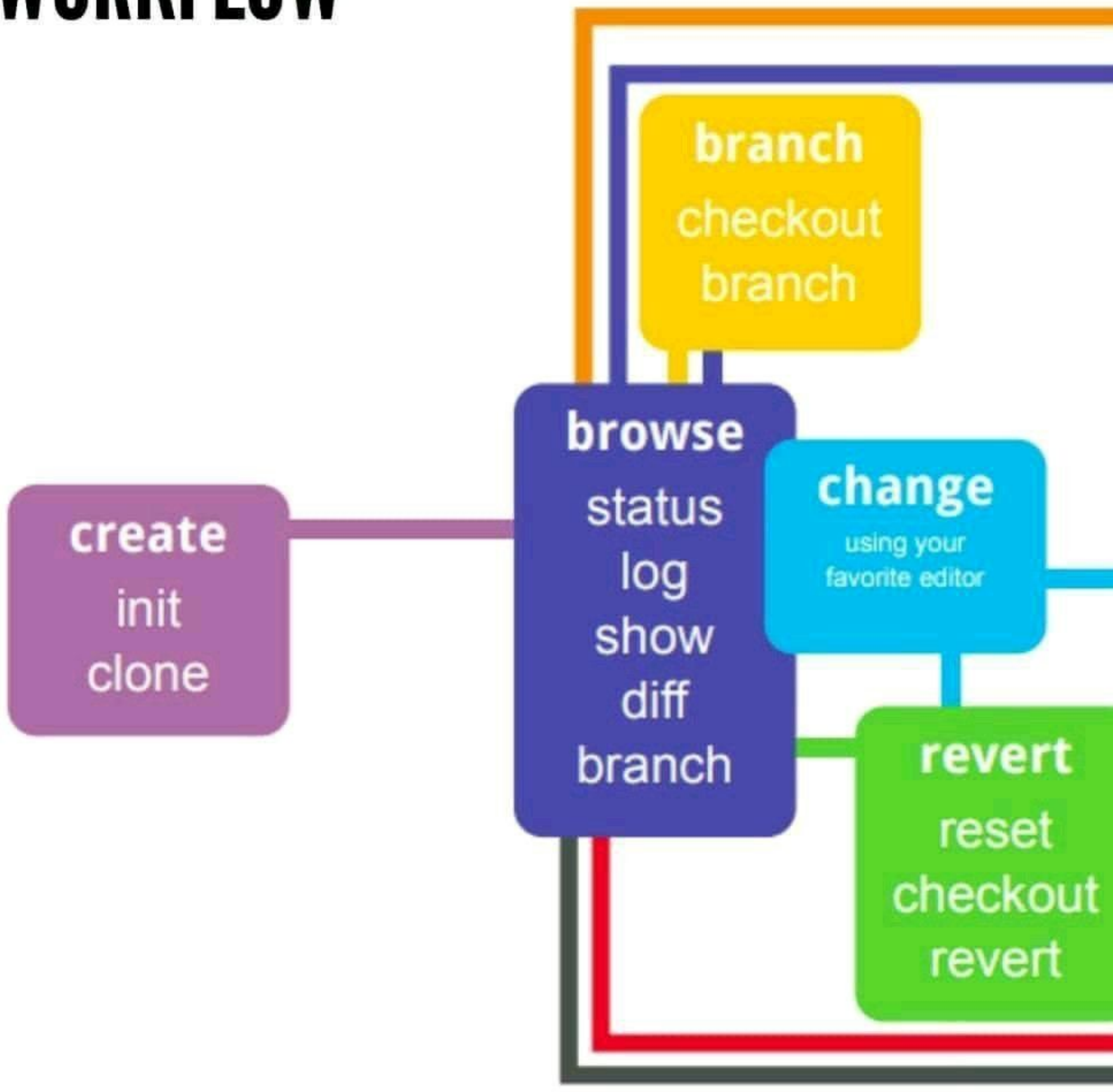
All local branches
git branch
star "*" marks the current branch

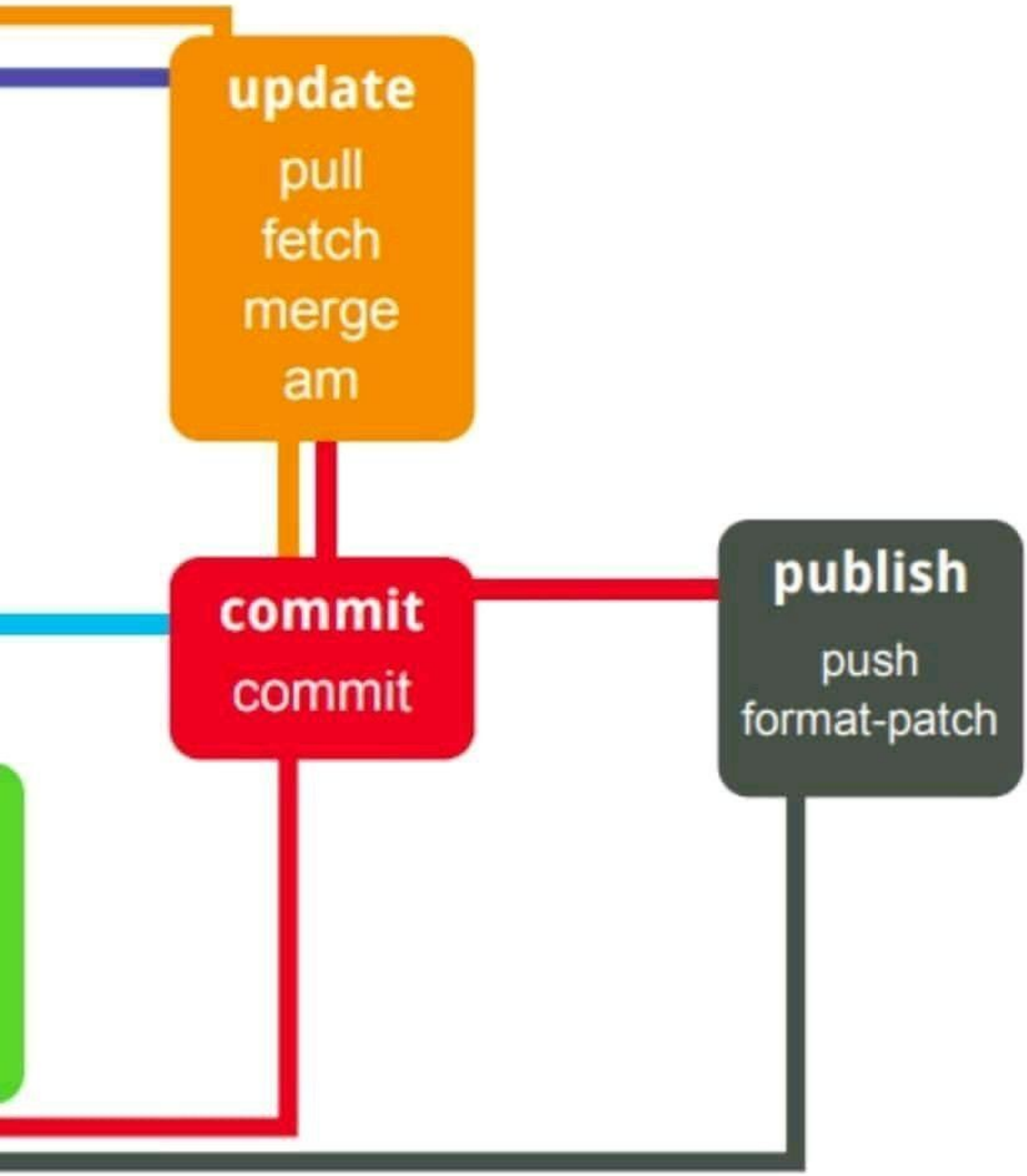
Search for patterns
git grep <pattern> [path]

master is the default development branch
origin is the default upstream repository
HEAD is the current branch

06

WORKFLOW


branch
checkout branch
browse
status
log
show
diff
branch
change
using your favorite editor
create
init
clone
revert
reset
checkout
revert


update
pull
fetch
merge
am
commit
commit
commit
publish
push
format-patch