

Create a Repository

From scratch - Create a new local repository

\$ git init [project name] Download from and existing repository

\$ git clone my url

Download from and existing repository an specific branch

\$ git clone -b my_branch my_url

Observe the Repository

List new or modified files not vet committed

\$ git status

Show the changes to files not vet staged

\$ git diff

Show the changes to staged files

\$ git diff --cached

List the change dates and authors for a

\$ git blame [files]

Show change history in fancy way

\$ git log --oneline --decorate --graph --all

Show change history

\$ git log

Show change history for file/directory including diffs

\$ git diff HEAD

Show the changes between two commits

\$ git diff commit1 commit2

Working with Branches

List all local hanches

\$ git branch

List all branches, local and remote

\$ git branch -av

Switch to a branch and update working directory

\$ git checkout my branch

Create a new branch from current one

\$ git checkout -b new branch

Delete a branch LOCALLY

\$ git branch -d my branch

Delete a branch REMOTELY

\$ git push --delete origin my branch

Merge branch to to branch from

\$ git checkout branch to

\$ git merge branch from

Working with remotes

Check remotes

\$ git remote -v

Add remote repository

\$ git remote add [name] my url

Stashing

Store unstaged changes for later

\$ git stash

Apply stored changes

\$ git stash pop

Make a change

Stage files, ready for commit

\$ git add [files]

Stage all changed files, ready for commit

\$ git add --all

Commit all staged files with signed history

\$ git commit -s -m "commit message"

Unstage files, keeping file changes

\$ git reset [files]

Revert everything to the last commit

\$ git reset --hard

Synchronize

Get the Latest changes from origin (no merge)

\$ git fetch

Get the Latest changes from origin and merge

\$ git pull

Get the Latest changes from origin and rebase

\$ git pull --rebase

Push local changes to origin

\$ git push

Push local new branch to origin

\$ git push -u origin new branch



Git cheat sheet for the book ", A Concise Introduction to Robot Programmi with ROS2", 2nd Edition, Francisco Martín Rico, CRC Press