Git Commands and Workflow

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| --- | --- |
| git status | Status of files in working directory |
| git add . | Add ALL from working directory to stage index area (Only first time) |
| git add file\_path file\_path file\_path | Add certain file(s) to stage index area |
| git commit -m "comment" | Commit file(s) in the current branch |
| git push origin master | Push from master local to remote master (origin master) |
| git branch | Show all branches and where the HEAD is pointing with an asterisk \* |
| git branch feature\_name | Create feature\_name branch |
| git push origin feature\_branch | Push the local feature\_branch to a remote (origin) feature\_branch that will be created automatically. The remote feature\_branch needs a pull request approval to be merged in origin master |
| git checkout branch\_name | Switch in between branches |
| git pull origin master | Pull last version of origin master. To pull the origin master we need to checkout in local master |
| git log | Register of all commits till last pull of the branch where we are pointing |
| git log -3 | Register of last # of commits till las pull of the branch where we are pointing |
| git log --oneline | Short version of git log (I like this) |
| git log --author "git\_username" | Commits of specific git username in the branch |
| git log --before "yyyy-mm-dd" | All commits before the specific date |
| git log --after "yyyy-mm-dd" | All commits after the specific date |
| git log --stat | Statistics / very detailed info of commits of the branch |
| git log --reverse | All commits in reverse order (older first) |
| git show 645899 | Entire info of specific commit using the commit ID as reference |
| git show HEAD | Entire info of last commit in the branch |
| git shortlog | Show the contribution of every single team member |
| git blame file\_path | Show line by line who change every single line of code in the file |
| git branch --delete branch\_name | Delete local branch\_name |
| git branch -r | Check the branches in the remote (origin) |
| git branch -vv | Check all branches in local and origin |
| git push -d origin branch\_name | Delete branch in origin (It is used after feature\_branch in the origin has been approved and merged in origin master) |
| git chechout -b feature\_name | Create and at the same time checkout into the new branch |
| git reset –soft HEAD^ | Reset from commit area to staging area the last commit |
| git reset –mixed HEAD^ | Reset from commit area to working area the last commit |
| git reset –hard HEAD^ | Delete from commit, stage and working area the last commit |
| git reset –soft commit\_ID |  |
| git push - f origin master | Delete the push in remote. IMPORTANT: Before we need to perform git reset --hard |
| git cherry-pick commit\_ID commit\_ID | Select the commits I want to merge. It is a kind of merge |
| git rebase main | It is another type of merge. All commit are provided one by one. Merge combine all commits in one. |
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**Day to day working flow**

git checkout master

1st step of the day and BEFORE any PUSH is ALWAYS pull the latest version of origin master

git pull origin master

DON’T add in

DON’T commit in

git checkout master

git merge feature1

git push origin master

git commit -m “comment”

git add file\_name

Origin Master

Local Master

x

Local master

Local master

Local Repository

Remote repository

Staging Index

Working Directory

To create and checout automatically

git checkout -b feature1

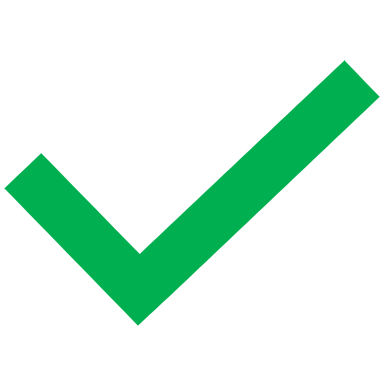
NOTE: NEVER merge feature into master

2nd step of the day and BEFORE any push is ALWAYS do local merge: master into feature

git merge master

After being accepted the merge needs to be merge into origin master

git checkout feature1



feature1

“comment one”

c31726e

Origin

feature1

git push origin feature1

“comment four”

“comment three”

“comment two”

5492222

5c595ca

02a301a

git commit -m “comment”

git add file\_name

Pull request OK

Working Directory

Remote repository

3afed163

Local Repository

Staging Index

**Conflicts**

git checkout master

git pull origin master

DON’T add in

DON’T commit in

git push origin master

git commit -m “comment”

git add file\_name

Origin Master

Local Master

Local master

Local master

Local Repository

Remote repository

Staging Index

Working Directory

git merge master

git checkout feature1

CONFLICT (add/add): Merge conflict in path\_of\_file\_with\_ conflicts

feature1

“comment one”

c31726e

“comment four”

“comment three”

“comment two”

5492222

5c595ca

02a301a

git commit -m “comment”

git add file\_name

Working Directory

Remote repository

3afed163

Local Repository

Staging Index

