Cheatography

GIT Cheat Sheet

by Mateusz Kocur via cheatography.com/27298/cs/7803/

COMMIT IDENTIFICATION

<branch_name>	Last commit on the branch
HEAD	Current commit (parent for next commit)
HEAD^	parent of HEAD
HEAD~n	n-th level parent of HEAD
HEAD@{n}	HEAD n moves ago (reflog)
SHA1 ID (4-20 characters)	Unique commit identifier

HEAD~0 == HEAD
HEAD~1 == HEAD^

WORK CYCLE

Create branch for new feature

```
git checkout develop
git checkout -b fb/new_feature_branch
```

Add change

```
# make changes
make compile
git status
git add file.c
git diff --cached (or --staged)
git commit
```

Rebase

```
git pull --rebase origin develop
```

Push unfinished feature branch at the EoD

```
git push origin fb/new_feature_branch -f
```

Merge with develop when finished

```
# ensure we're rebased on latest develop
git checkout develop
git pull
git merge fb/new_feature_branch --no-ff
```

Push develop

```
git push origin develop
```

Remove feature branch

```
git branch -d fb/new_feature_branch
git push origin :fb/new_feature_branch
```

ADD CHANGES

commit [-m "commit msg"]	Commit staged changes
commit -a	Add & commit all tracked files
commit --amend	Add changes to last commit
add [file]	Stage file
add -p	Add chunks interactively
diff --staged	Inspect staged changes

UNDO CHANGES

checkout .	Undo uncommited changes
reset HEAD	Unstage files
reset --soft HEAD^	Undo commit (to stage)
reset --hard HEAD^	Undo commit
revert <commit>	Revert existing commit

BRANCHES

branch -avv	List all branches with refs
branch <name> [<commit>]	Create branch (at <commit>)
checkout -b <branch_name>	Create & checkout new branch
checkout <branch> [file]	Checkout workspace (or file)
branch -m <new_branch_name>	Rename current branch
branch -d|-D <branch>	Delete merged/unmerged branch

MERGE

merge <with_branch>	Merge branch (default: fast-forward)
merge <with_branch> --no-ff	Merge branch (no fast-forward)

REBASE

rebase <new_root_commit>	Rebase current branch
rebase -i <start_commit>	Interactive rebase
rebase -i HEAD~n	Interactive rebase (last n commits)

By **Mateusz Kocur**
cheatography.com/mateusz-kocur/

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REMOTES

remote -v	Show all remotes
remote add <name> <url>	Add remote
remote remove <name>	Remove remote

REMOTE BRANCHES

fetch [<remote>]	Get remote changes
pull [<remote>]	Get & merge remote changes
pull --rebase [<remote>] [<branch>]	Get & rebase on remote changes
push [<remote>] [<branch>] [-f]	Push local branch to remote
push -n	Dry-run push
remote prune origin	Clean all old remote branch references

RESET

reset <mode> [<commit>]	Reset current branch to <commit>
reset --soft HEAD^	Undo commit
reset HEAD~n	Undo last n commits

--soft - do not touch working tree/index
--mixed - resets index
--hard - resets working tree & index

CHERRY-PICK

cherry-pick <commit>	Apply already-existing change
rebase --onto <base> <start^> <end>	Apply set of already-existing changes

STASH

stash	Stash workdir & index
stash list	List stashes
stash pop [--index]	Apply & delete stash
stash apply [--index]	Apply stash
stash pop [stash@{n}]	Apply & delete n-th stash
stash drop [stash@{n}]	Remove n-th or latest stash
stash clear	Remove all stashes
stash branch [<new_branch>]	Create branch from a stash

TAGS

tag	Liast tags
tag <tagname> [<commit>]	Add lightweight tag
tag -a <tagname> [-m “Tag message”]	Add annotated tag
tag -d <tagname>	Remove tag
push <remote> <tagname>	Push tag
push <remote> --tags	Push with all tags
push <remote> :<tagname>	Remove remote tag

BLAME

blame <file> [-L start,-stop]	Check who modified file (lines start--stop)

REFLOG

reflog	Show history of HEAD
branch <new_branch_name> <lost_commit>	Recover deleted branch

CLEAN

gc	Manually clean garbage objects
clean -fd	Remove not tracked files and folders

BISECT

bisect start <bad_commit> <good_-commit>	Init bisect
bisect run test_script.sh	Run automated binary-search

Error code 125 to skip current branch

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