Cheatography

GIT - Everyday use Cheat Sheet

by TME520 (TME520) via cheatography.com/20978/cs/22547/

Key concepts

HEAD	Head is your current branch. You can see what HEAD points to by typing `cat .git/HEAD`,
Remote	Remotes are non-local repositories you can interact with (push/pull). The default remote is *origin* (you can see that using `git remote -v`).
Branch	Branches are a way of safely work on new features without messing other peoples work (one feature, one branch).
Commit	A commit is a change or a set of changes you wish to register and save.

Repositories

Create a local repository	mkdir ./my_repo && cd ./my_repo && git init
Clone a repository from GitHub	git clone https://github.com/TME520/etm.git
Clone a specific branch from a repo	git clone -b development https://github.com/TME520/etm.git

Branches

List branches	git branch	git branch --list
Clone a specific branch	git clone -b <branch> <remote_repo>	git clone -b development git@github.com:user/-myproject.git
Switch to an existing branch	git checkout <branch>	git checkout feat/robert/-add-pub-holidays-2020

Branches (cont)

Switch to a new branch	git checkout -b <new_branch>	git checkout -b conf/marcel/-use-EditorConfig
Push changes to a remote branch	git push origin <branch>	git push origin fix/patrick/remove-parasite-chars-from-config-file
Delete a branch	git branch -d <branch>	git branch -d feat/raja/count-api-failures
Integrate your feature branch to the main	git merge <branch>	git merge main

Using branches, several developers are able to work together on the same code base, the same project.
git merge is not usually done manually, but is managed by your pull request system.

Getting out of (mild) troubles

Cancel untracked uncommited local changes	git reset --hard && git pull remote <remote_branch>

Basic configuration

Set your name	git config --global user.name "John Doe"
Set your email address	git config --global user.email johndoe@example.com
Set your default editor	git config --global core.editor emacs

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Dot files

.gitignore	Specifies intentionally untracked files that Git should ignore. Files already tracked by Git are not affected.
.gitattributes	Gives attributes (end of line type, diff type, merge type...) to certain files.

Examples of *.gitignore* files: click here
Examples of *.gitattributes* files: click here

Basic workflow

Clone a repo	git clone https://github.com/TME520/etm.git
Create a new branch	git checkout -b conf/yu/add-api-endpoints-to-monitoring
Check repo status and current branch	git status
Add changes to next commit (track files)	git add -A
Commit with a message	git commit -m "Sometimes dogs are grey"
Refresh current local branch with remote branch	git pull origin development
Push changes to remote	git push origin conf/yu/add-api-endpoints-to-monitoring

git push uploads your commits to the remote repository.
git pull is a combination of git fetch and git merge. It gets the updates from remote repository and applies the latest changes to your local.

Commits

Add one file to a future commit	git add <file>	git add benchmark.c
Add all files to a future commit	git add -A	
Commit with a message	git commit -m "<message>"	git commit -m "-Initial commit"
Change the message of the latest commit	git commit --amend -m "<new_message>"	git commit --amend -m "-Beautiful commit"
Cancel a commit	git log --oneline	
	git revert <commit_id>	

Git commits are checkpoints in the development process which you can go back to later if needed.
Git commit saves your changes only locally.
git revert won't delete the commit, it will instead create a new one cancelling the other.

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