## git --learning --curve

# difficulty

#

# ---- nirvana

# / \

# / \

# / ------

# | conflicts!?# \

# | rebase!# \

# / \

# ? reset?! -------

# / undo?

# / reset?!

# | index?

# | dag?

# ----

#

# time

#

# Disclaimer:

# - I'm not an expert

# - This should benefit beginners and

# intermediates

# - This covers doubts I had and I was asked

# however basic it sounds

# - Try to ask questions at the end

# - Try not to treat Git or SCM as secondary

## git log --gargantuan --intimidating --terrifying

# log has 100+ options

# git log man is -git

$ git log -git

-tig

-g -i -t

-g -t -i

## consoles

git bash

posh-git

conemu

tortoisegit

...

# What I use?

git bash

scite text editor

winmerge2011 (diff, merge)

## configs

# system

# global

# local

# edit

$ git config --local -e &

$ git config --global -e &

# global config

# editor

# winmerge

# set some options in configs

# include path

## aliases

# The freedom to make my own ~~mistakes~~ aliases

# is all I ever wanted.

# - Mance Rayder

# Game of Thrones

# git commit

$ git c

# git checkout

$ git co

# git status -s|--short

$ git s

# log aliases

# git log --pretty=twoline --graph \

# --decorate --abbrev-commit --date=relative

$ git l -1

$ git alias alias

$ git alias conf

# alias with ! run at root level

$ cd to/some/dir

$ git l .

## data structures

special refs: head, fetch\_head

branch

refs: branch, remote, tag:

commit

commit: => hash

(tree, hash)

(parent, hash)[]

author, name, email, date

committer, name, email, date

tree: => hash

(type, hash, name)[]

# where type is blob|tree

blob: => hash

binary

# cat

$ git cat-file -p <commit>|<tree>|<blob>

## DAG

# root

# o<---o<---A<---x master

# \ /

# `--B<-´

# dev

#

# commits are shown as either of following:

# o

# \*

# letters A, B, C ...

# merge commits are shown as:

# x

## workings

# work offline

# commit represents the whole repo at that point

# for diff, only the commits involved are required

# o---A---o---o---B

## upstream

# upstream

#

# --o---B origin/master

# /

# /

# ---o---o---A origin/master

# master

#

# downstream

$ git fetch

# upstream

#

# origin/master

#

# ---o---o---A----o---B origin/master

# master

#

# downstream

(master)

$ git reset --hard master@{u}

origin/master