yet another git cheat sheet (using github)

please submit errata to ben@bj.ma

config clone branch init remote add commit push pull checkout reset status stash blame cherry-pick gui diff log merge gc grep tag

set username
```
git config --global user.name "<username>"
```

set email
```
git config --global user.email <email-address>
```

make git case insensitive
```
git config --global core.ignorecase true
```

clone existing github repo
```
git clone git@github.com:<account-name>/<repo-name>.git
```

checkout and track a remote
```
git branch -f <local-name> <remote-name>/<branch-name>
```

initialize local repo
```
git init
```

add a remote (use 'origin' for remote name)
```
git remote add <remote-name> git@github.com:<account-name>/<repo-name>.git
```

add file to index
```
git add <file>
```

add all files not in index
```
git add .
```

commit all changes to index
```
git commit -a
```

push local to remote & track
```
git push -u <remote-name> <branch-name>
```

push to remote branch
```
git push origin <branch-name>
```

update latest from remote
```
git remote update
```

pull branch (fetch and merge)
```
git pull origin <branch-name>
```

switch branch
```
git checkout <branch-name>
```

clean everything (ignored, dirs, files)
```
git clean -xdf
```

delete remote branch
```
git push origin :<branch-name>
```

delete local branch
```
git branch -d <branch-name>
```

create branch
```
git checkout -b <new-branch-name> <branch-to-branch-off>
```

rename branch
```
git branch -m <old-branch-name> <new-branch-name>
```

unstage committed changes
```
git reset HEAD
```

unstage previous n commits
```
git reset HEAD~n
```

view staged changes
```
git status
```

lose changes to working copy
```
git reset --hard
```

stash changes
```
git stash
```

pop stashed changes
```
git stash pop
```

who changed file contents
```
git blame <file>
```

view remote branches
```
git branch -r
```

revert changes to file
```
git checkout -- <file>
git checkout HEAD <file>
```

undo conflict resolution
```
git checkout -m <file>
```

un-stage single file commit
```
git reset HEAD <file>
```

cherry pick from a local branch (e.g. if committed to a wrong branch)
```
//get the sha of the commit
git checkout <correct-branch-name>
git cherry-pick <sha>
git push origin <correct-branch-name>
git checkout <incorrect-branch-name>
git reset -hard HEAD^
git push origin <incorrect-branch-name>
```

interactive add
```
git add -i
2 - update index with changes to existing files
4 - add untracked files according to selection
```

visualize index
```
git gui
```

visualize log/history
```
gitk
```

pull historical version of branch into another (e.g. known good integration into master)
```
git checkout <sha>                    //now in detached head state
git checkout -b <branch-name>         //branch based on <sha>
git checkout master                   //for example
git pull <temporary-branch-name>
git push origin master
git branch -d <temporary-branch-name>
```

add submodule
```
git submodule add git@github.com:<account-name>/<repo-name>.git <location>
```

commit as amend to the previous commit
```
git commit -a --amend
//then "i" for interactive ":w" to save, and ":q" to quit
```

remove remote
```
git remote rm <remote-alias>
```

set remote
```
git branch set-upstream origin/branch-to-track
```

differences between branches
```
git diff --name-status master..branch
```

list commits to branch
```
git log
```

check the result of a merge (before commit)
```
git pull <remote-name> //bring yourself up-to-date
git merge <branch-name> --no-commit --no-ff
```

prune knowledge of deleted remotes
```
git remote prune <remote-name> //e.g. 'origin'
```

compress history archive
```
git gc
```

find in files
```
git grep -n <string-to-find>
```

tag a branch
```
git tag -a <branch-name> -m "<message>"
```

"chop the head off a branch"
NOTE: this adds a commit with the tree at the state it was at the given sha. It doesn't actually chop the head off.
```
//id the sha of the last good commit
git reset <sha>              //reset index to the desired tree
git reset --soft HEAD@{1}    //move branch pointer to previous HEAD
git commit -m "<message>"    //e.g. "revert to <sha>"
git reset --hard             //reset working copy to reflect new commit
```

add color
```
git config color.ui true
```

add alias
```
git config --global alias.myalias '<actual-command>'
```