Git Guide
By Caoimhe O'Brien

Git rm example

Git rm to remove file(s) from the staging area. #Format git rm filename

Can use wildcards and -r for recursive

Use – cached to remove form staging area

Use -f to use on working directory.

1. Init

Definition and usage:

The git init command allows you to create or re-initialise a new repository whether than be locally or on GitHub.

Should be one of the first commands that you use in a new project.

Syntax:

git init

Screenshot:

```
C00297178@CD-A307-28 MINGW64 /g/Communications Skills/Git_Comms/assignment1
$ git init
Initialized empty Git repository in //CS-STUDENT-01/HOME$/202300/KCIAD_B_Y1/C002
97178/Communications Skills/Git_Comms/assignment1/.git/
```

2. Add

Definition and usage:

The git add command adds new files to the working directory.

Adds all files except those listed in .gitignore.

Syntax:

git add .

Screenshot:

```
C00297178@CD-A307-28 MINGW64 /c/Users/C00297178/Desktop/comms_GitHub (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   gitGuide.docx
        modified:   script.txt

no changes added to commit (use "git add" and/or "git commit -a")

C00297178@CD-A307-28 MINGW64 /c/Users/C00297178/Desktop/comms_GitHub (master)
$ git add .

C00297178@CD-A307-28 MINGW64 /c/Users/C00297178/Desktop/comms_GitHub (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   gitGuide.docx
        modified:   script.txt
```

3.   Status

Definition and usage:

The git status command allows you to view the status of your files in the working directory/ whatever branch you're currently working on.

Syntax:

git status

Screenshot:

```
C00297178@CD-A307-28 MINGW64 /c/Users/C00297178/Desktop/comms_GitHub (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   gitGuide.docx
        modified:   script.txt
```

```
C00297178@CD-A307-28 MINGW64 /c/Users/C00297178/Desktop/comms_GitHub (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   gitGuide.docx
        modified:   script.txt
```

4.   Commit

Definition and usage:

The commit command allows the user to upload the files in the working directory and uploads them to the previous node.

Will add the label to this specific commit -should be useful names, not only for you but for anyone else who might read your code. If you omit a label, git will force you to assign a label and will open an editor.

Syntax:

git commit -m "<Commit name>"

Screenshot:

```
C00297178@CD-A003-80 MINGW64 /c/Users/C00297178/OneDrive - South East Tech
$ git status
On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   gitGuide.docx
        modified:   script.txt
        deleted:    ~$tGuide.docx

C00297178@CD-A003-80 MINGW64 /c/Users/C00297178/OneDrive - South East Tech
$ git commit -m "Added text for 4.Commit again"
[master 677adfe] Added text for 4.Commit again
 Committer: (Student  C00297178) Caoimhe O Brien <C00297178@setu.ie>
Your name and email address were configured automatically based
on your username and hostname. Please check that they are accurate.
You can suppress this message by setting them explicitly. Run the
following command and follow the instructions in your editor to edit
your configuration file:

    git config --global --edit

After doing this, you may fix the identity used for this commit with:

    git commit --amend --reset-author

 3 files changed, 6 insertions(+), 2 deletions(-)
 delete mode 100644 ~$tGuide.docx
```

5. Remote

Definition and usage:

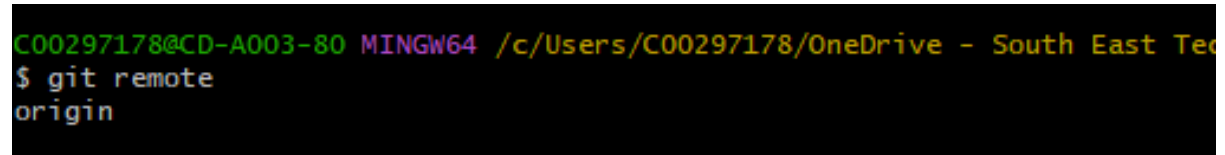Lists repositories on remote server and create a new remote repository.

Syntax:

git remote -v

git remote add <name> <url>

Screenshot:

```
C00297178@CD-A003-80 MINGW64 /c/Users/C00297178/OneDrive - South East Te
$ git remote
origin
```
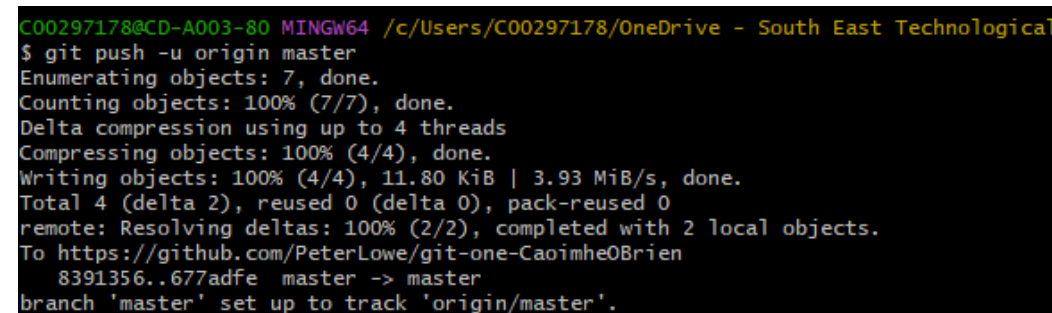
6. Push

Definition and usage:

Updates the remote node with the current node.

Syntax:

git push -u origin master.

Screenshot:

```
C00297178@CD-A003-80 MINGW64 /c/Users/C00297178/OneDrive - South East Technological
$ git push -u origin master
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 11.80 KiB | 3.93 MiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/PeterLowe/git-one-CaoimheOBrien
   8391356..677adfe  master -> master
branch 'master' set up to track 'origin/master'.
```

7. Branch
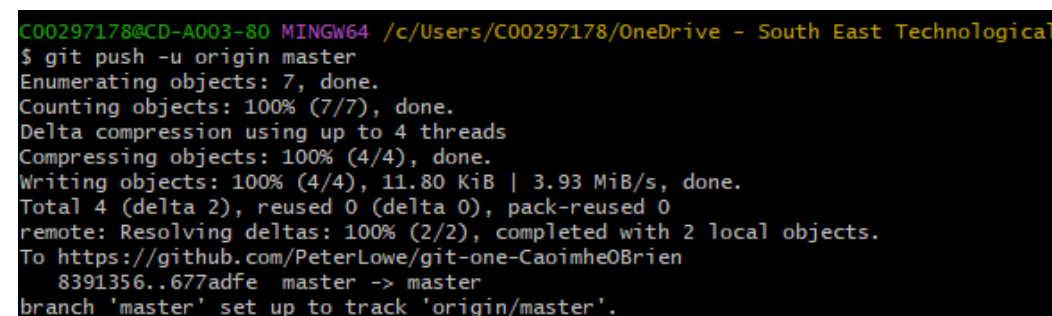
Definition and usage:

Lists all branches in repository.

The current branch is highlighted with a star.

Syntax:

git branch - a/ -l/ -r

Screenshot:

```
C00297178@CD-A003-80 MINGW64 /c/Users/C00297178/OneDrive - South East Technological
$ git push -u origin master
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 4 threads
Compressing objects: 100% (4/4), done.
Writing objects: 100% (4/4), 11.80 KiB | 3.93 MiB/s, done.
Total 4 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), completed with 2 local objects.
To https://github.com/PeterLowe/git-one-CaoimheOBrien
   8391356..677adfe  master -> master
branch 'master' set up to track 'origin/master'.
```

8.   Log

Definition and usage:

Lists all commits on your branch/ repository.

Lists files altered and line changed.

Shows a condensed list.

only calls the last n commits.

Syntax:

git log

git log – stat

git log - - graph - - oneline

git log -n

Screenshot:

9.   Merge

Definition and usage:

Merge head with master. (Master is the main branch)

Git will automatically apply changes if separate.

Warn if conflict and not merge.

Syntax:

git merge master

Screenshot:

```
caoim@CaoimhesComputer MINGW64 ~/OneDrive - South East Technological Univer
rien (master)
$ git merge master
Already up to date.
```

10.   Stash

Definition and usage:

Creates a local only copy of the current working directory.

Syntax:

git stash

screenshot:

```
caoim@CaoimhesComputer MINGW64 ~/OneDrive - South East Technological University/Yr1Sem1/C
rien (master)
$ git stash
Saved working directory and index state WIP on master: 4636768 Text for 9 finished

caoim@CaoimhesComputer MINGW64 ~/OneDrive - South East Technological University/Yr1Sem1/C
rien (master)
```