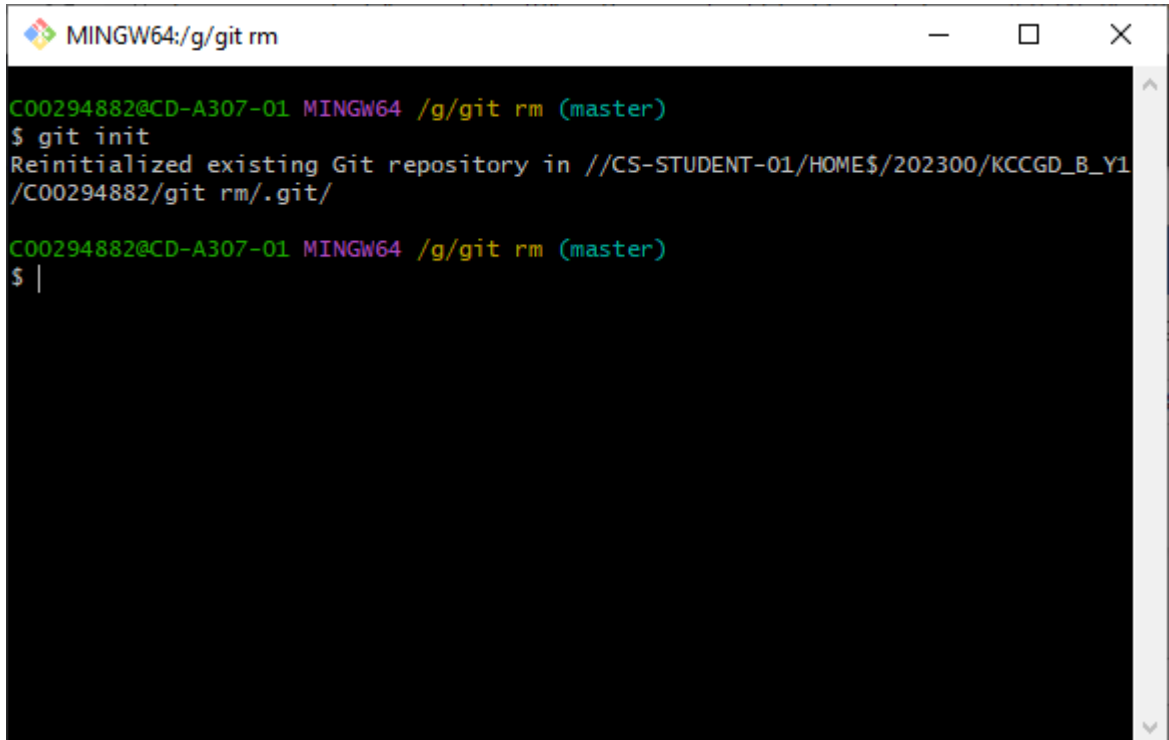


## Git Guide

By Karol Loughlin

1. Init = initialises a git repository inside of a folder.

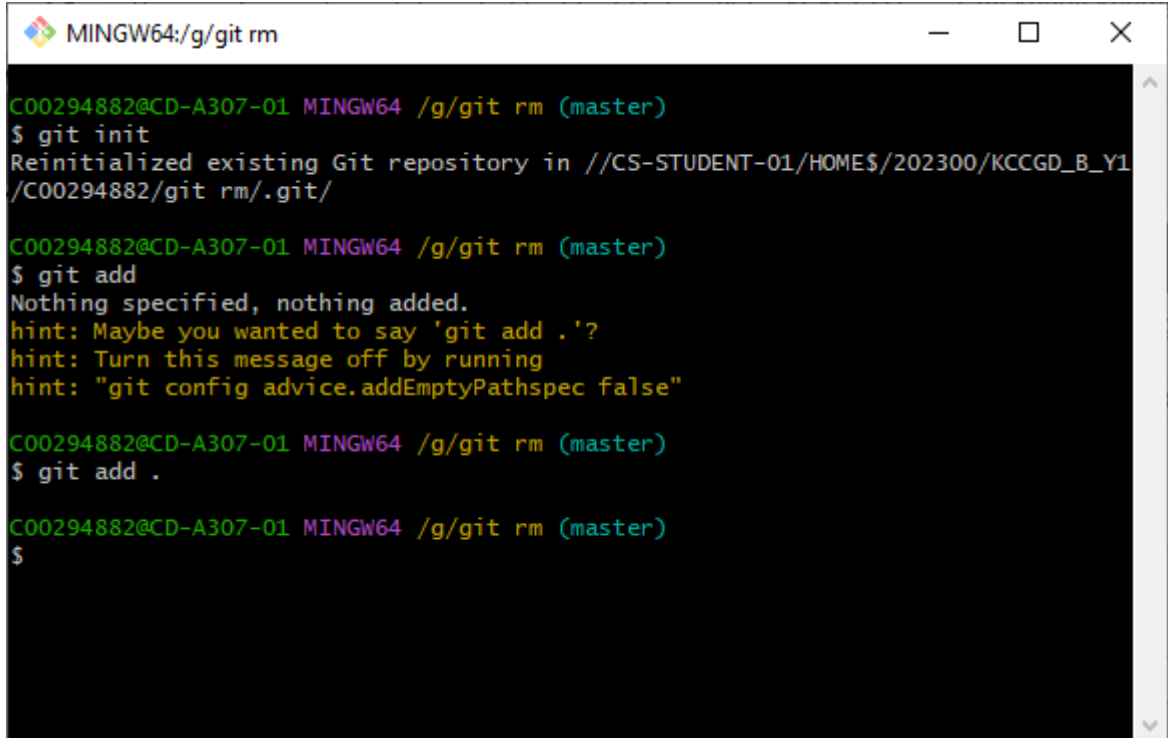
A screenshot of a Windows command prompt window titled "MINGW64:/g/git rm". The window has standard Windows window controls (minimize, maximize, close) in the top right corner. The command prompt shows the user "C00294882@CD-A307-01" in the "MINGW64" shell at the directory "/g/git rm" on the "master" branch. The user enters the command "\$ git init". The output shows "Reinitialized existing Git repository in //CS-STUDENT-01/HOME\$/202300/KCCGD\_B\_Y1/C00294882/git rm/.git/". The prompt then shows the user entering a new command, indicated by a vertical bar after the "\$".

```
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git init
Reinitialized existing Git repository in //CS-STUDENT-01/HOME$/202300/KCCGD_B_Y1
/C00294882/git rm/.git/

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

- 2.

3. Add = adds a change in the working directory into the staging area. In the format "git add ."



```
MINGW64:/g/git rm

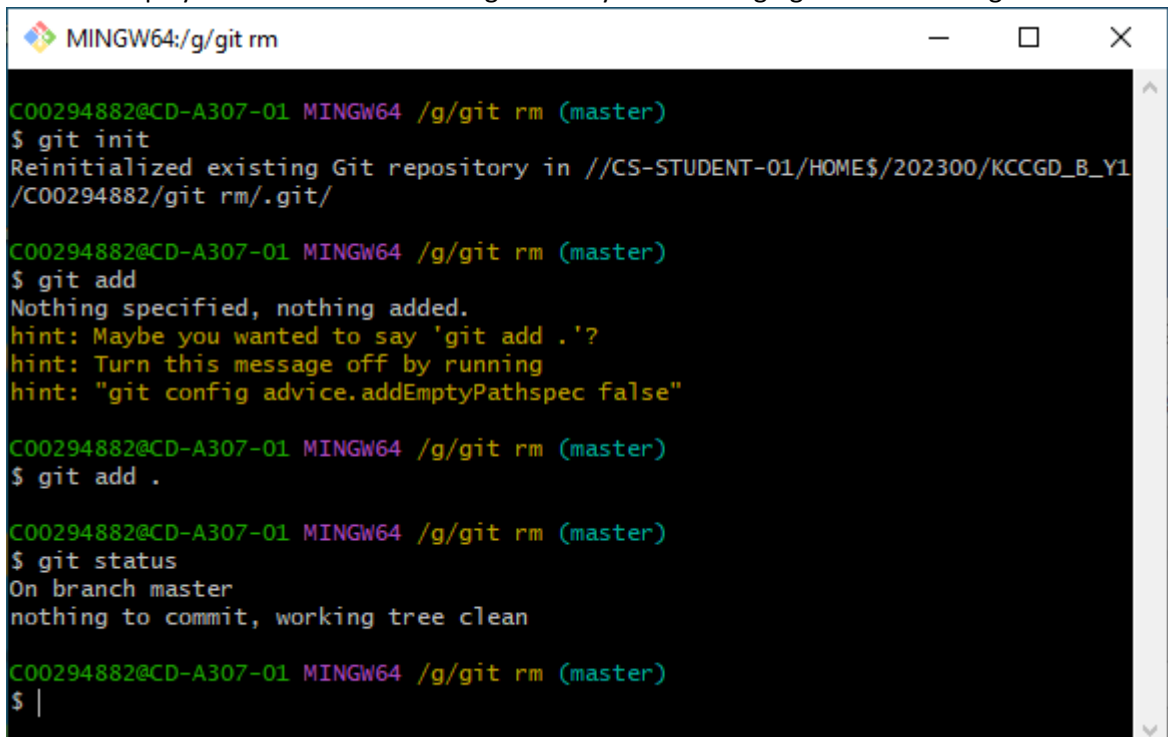
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git init
Reinitialized existing Git repository in //CS-STUDENT-01/HOME$/202300/KCCGD_B_Y1/C00294882/git rm/.git/

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add .'
hint: Turn this message off by running
hint: "git config advice.addEmptyPathsSpec false"

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add .

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
```

4. Status = Displays the state of the working directory and the staging area. FORMAT git status



```
MINGW64:/g/git rm

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git init
Reinitialized existing Git repository in //CS-STUDENT-01/HOME$/202300/KCCGD_B_Y1/C00294882/git rm/.git/

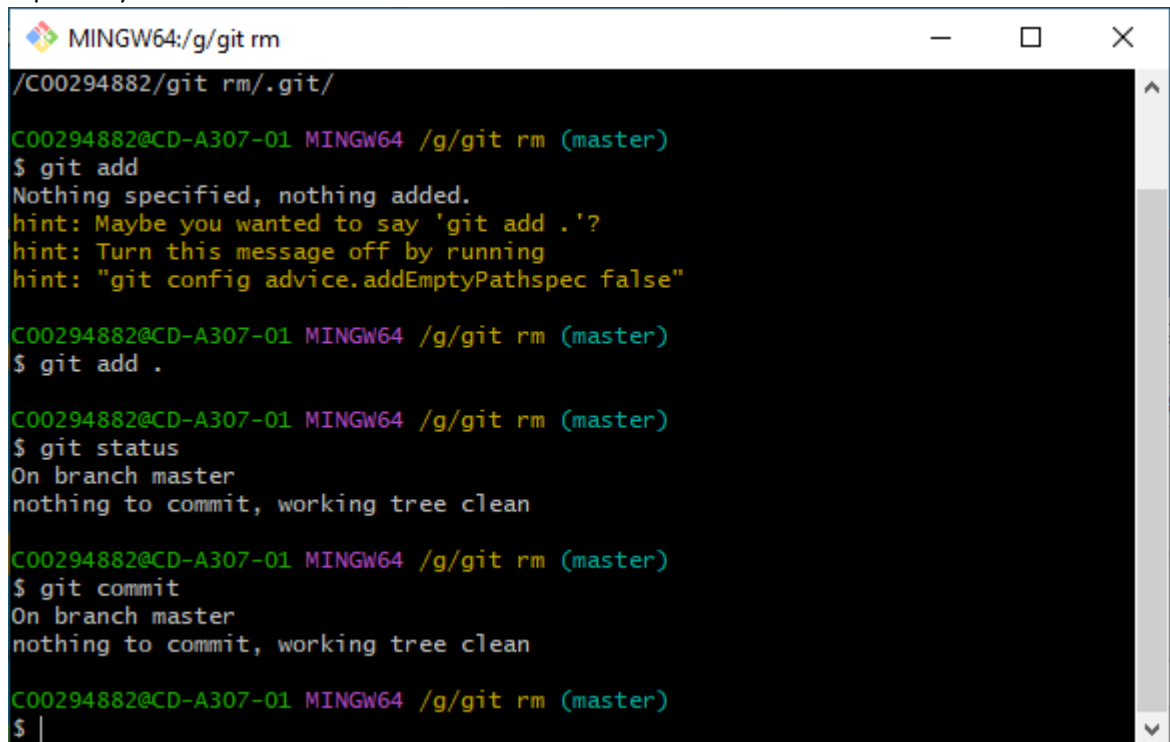
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add .'
hint: Turn this message off by running
hint: "git config advice.addEmptyPathsSpec false"

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add .

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git status
On branch master
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

5. Commit = will enter editor mode for comments, and/or make a new revision point on repository. Git commit

A terminal window titled 'MINGW64:/g/git rm' showing a series of git commands and their outputs. The user runs 'git add', which shows a hint about adding files. Then they run 'git add .' to add the current directory. Next, they run 'git status', which shows the working tree is clean. Finally, they run 'git commit', which also shows the working tree is clean. The prompt '\$' is visible at the end of the last line.

```
MINGW64:/g/git rm
/C00294882/git rm/.git/

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add .' ?
hint: Turn this message off by running
hint: "git config advice.addEmptyPathsSpec false"

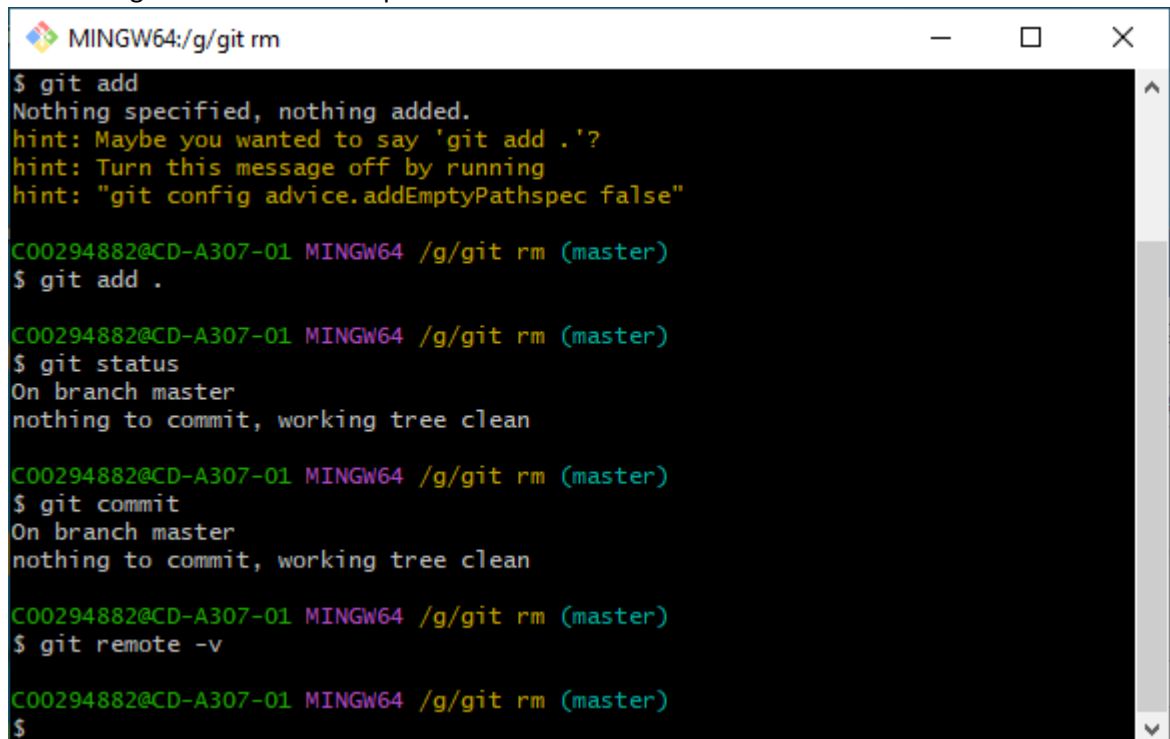
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add .

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git status
On branch master
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git commit
On branch master
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

6. Remote = git remote -v : lists repositories on the remote server

A terminal window titled 'MINGW64:/g/git rm' showing a series of git commands and their outputs. The user runs 'git add', which shows a hint about adding files. Then they run 'git add .' to add the current directory. Next, they run 'git status', which shows the working tree is clean. Then they run 'git commit', which also shows the working tree is clean. Finally, they run 'git remote -v', which shows no remote repositories are configured. The prompt '\$' is visible at the end of the last line.

```
MINGW64:/g/git rm

$ git add
Nothing specified, nothing added.
hint: Maybe you wanted to say 'git add .' ?
hint: Turn this message off by running
hint: "git config advice.addEmptyPathsSpec false"

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git add .

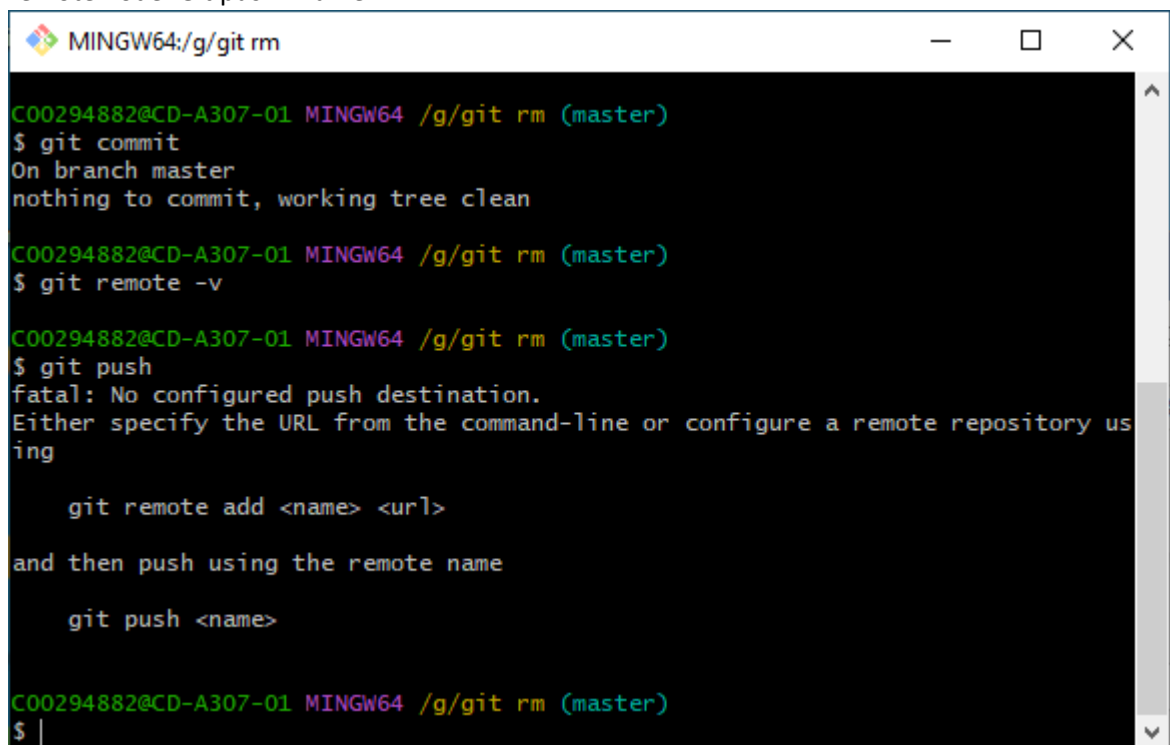
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git status
On branch master
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git commit
On branch master
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git remote -v

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
```

7. Push = this will update the remote node with the current node. User need to associate remote node. Git push <name>



```
MINGW64:/g/git rm
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git commit
On branch master
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git remote -v

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git push
fatal: No configured push destination.
Either specify the URL from the command-line or configure a remote repository using

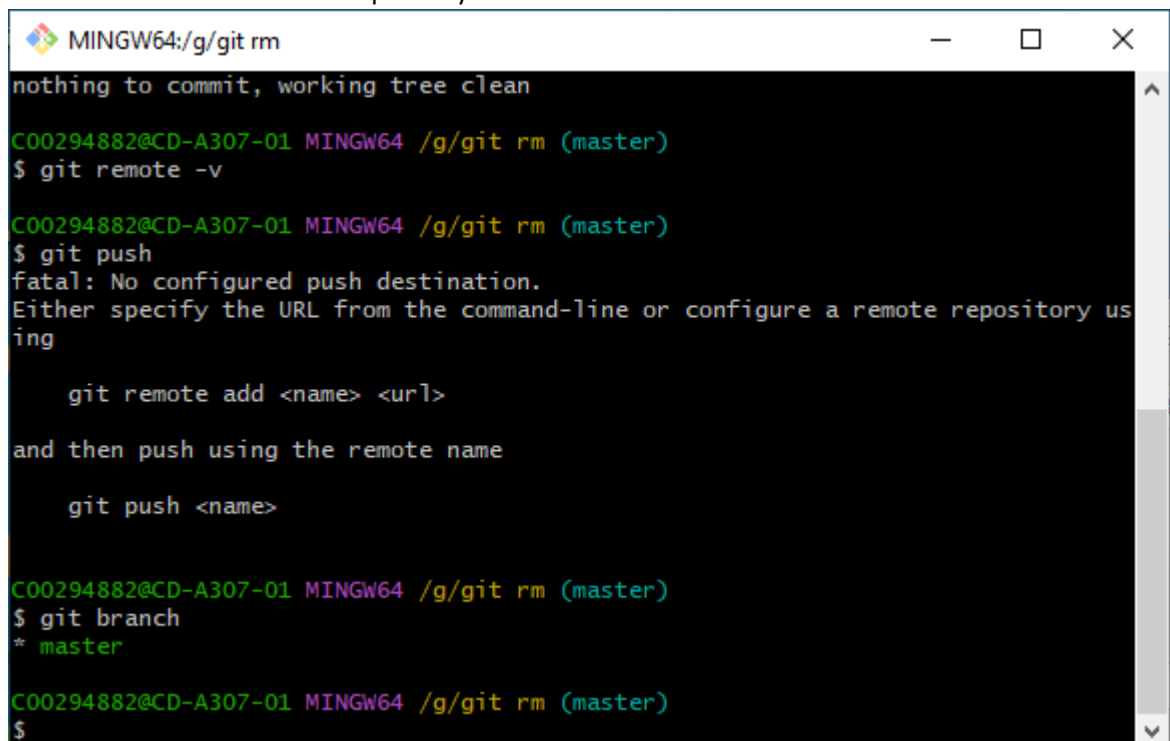
    git remote add <name> <url>

and then push using the remote name

    git push <name>

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

8. Branch = lists branches on a repository. Git branch -r to list branches on remote



```
MINGW64:/g/git rm
nothing to commit, working tree clean

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git remote -v

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git push
fatal: No configured push destination.
Either specify the URL from the command-line or configure a remote repository using

    git remote add <name> <url>

and then push using the remote name

    git push <name>

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git branch
* master

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
```

9. Checkout = `git checkout branch_name` : makes the node a current HEAD. This will not work if there is modified files.

```
MINGW64:/g/git rm
git remote add <name> <url>
and then push using the remote name
git push <name>

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git branch
* master

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git checkout

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git merge
fatal: No remote for the current branch.

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git checkout master
Already on 'master'

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

10. Merge, specifically `git merge master` : merges HEAD with master. Git automatically applies changes if separate. Edit files and then commit.

```
MINGW64:/g/git rm
fatal: No configured push destination.
Either specify the URL from the command-line or configure a remote repository using

git remote add <name> <url>
and then push using the remote name

git push <name>

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git branch
* master

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git checkout

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git merge
fatal: No remote for the current branch.

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
```

11. Log, specifically git log -n lists only the last n commits.

```
MINGW64:/g/git rm
$ git branch
* master

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git checkout

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git merge
fatal: No remote for the current branch.

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git checkout master
Already on 'master'

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git log
commit 9f8691f5bc300b7ffe38041320547bd28084669f (HEAD -> master)
Author: (Student C00294882) Karol Loughlin <C00294882@setu.ie>
Date:   Fri Oct 20 09:48:11 2023 +0100

    first

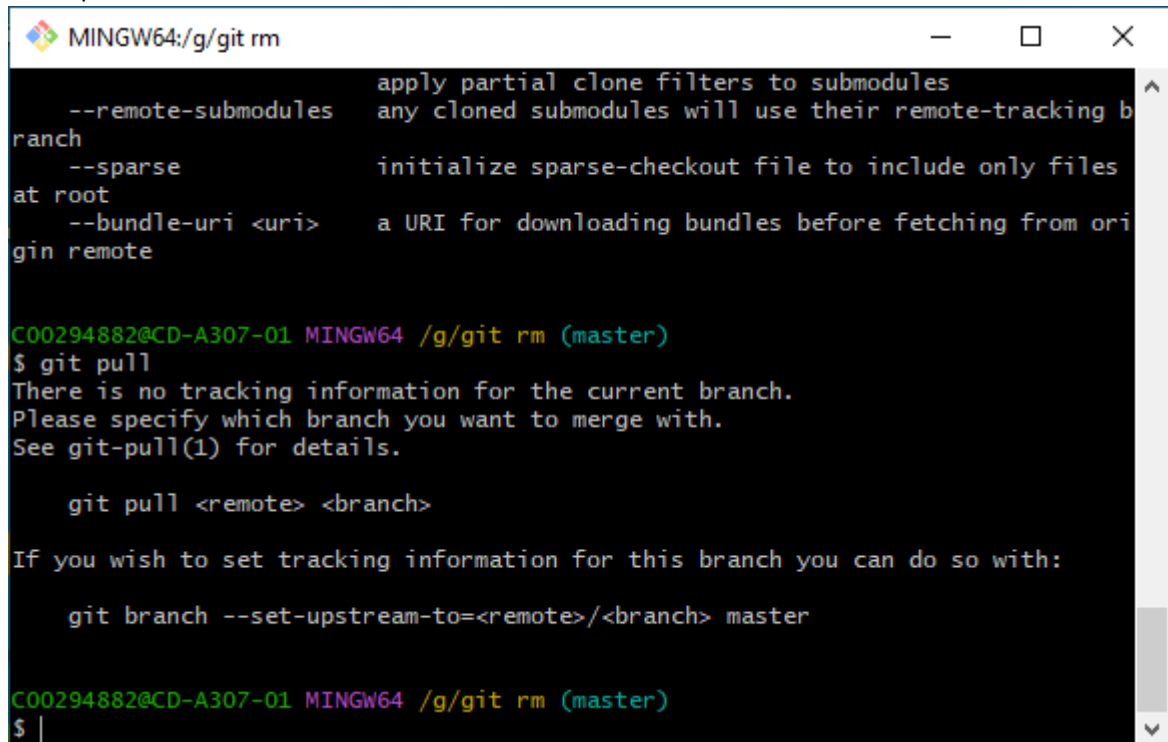
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

12. Clone = clones a repository

```
MINGW64:/g/git rm
--no-tags          don't clone any tags, and make later fetches not to fo
llow them
--shallow-submodules any cloned submodules will be shallow
--separate-git-dir <gitdir>
                    separate git dir from working tree
-c, --config <key=value>
                    set config inside the new repository
--server-option <server-specific>
                    option to transmit
-4, --ipv4          use IPv4 addresses only
-6, --ipv6          use IPv6 addresses only
--filter <args>     object filtering
--also-filter-submodules
                    apply partial clone filters to submodules
--remote-submodules any cloned submodules will use their remote-tracking b
ranch
--sparse            initialize sparse-checkout file to include only files
at root
--bundle-uri <uri>  a URI for downloading bundles before fetching from ori
gin remote

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
```

13. Pull = pulls a branch from a remote server.



```
MINGW64:/g/git rm
--remote-submodules    apply partial clone filters to submodules
                        any cloned submodules will use their remote-tracking b
branch
--sparse               initialize sparse-checkout file to include only files
at root
--bundle-uri <uri>     a URI for downloading bundles before fetching from ori
gin remote

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git pull
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

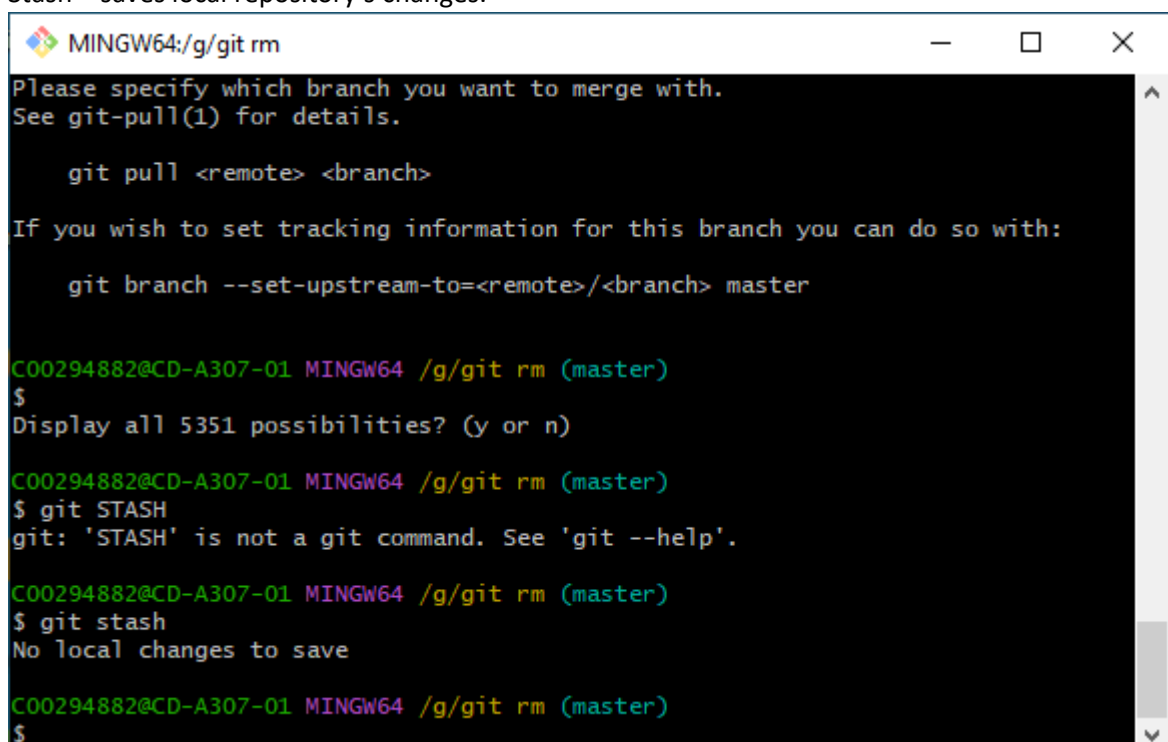
    git pull <remote> <branch>

If you wish to set tracking information for this branch you can do so with:

    git branch --set-upstream-to=<remote>/<branch> master

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```

14. Stash = saves local repository's changes.



```
MINGW64:/g/git rm
Please specify which branch you want to merge with.
See git-pull(1) for details.

    git pull <remote> <branch>

If you wish to set tracking information for this branch you can do so with:

    git branch --set-upstream-to=<remote>/<branch> master

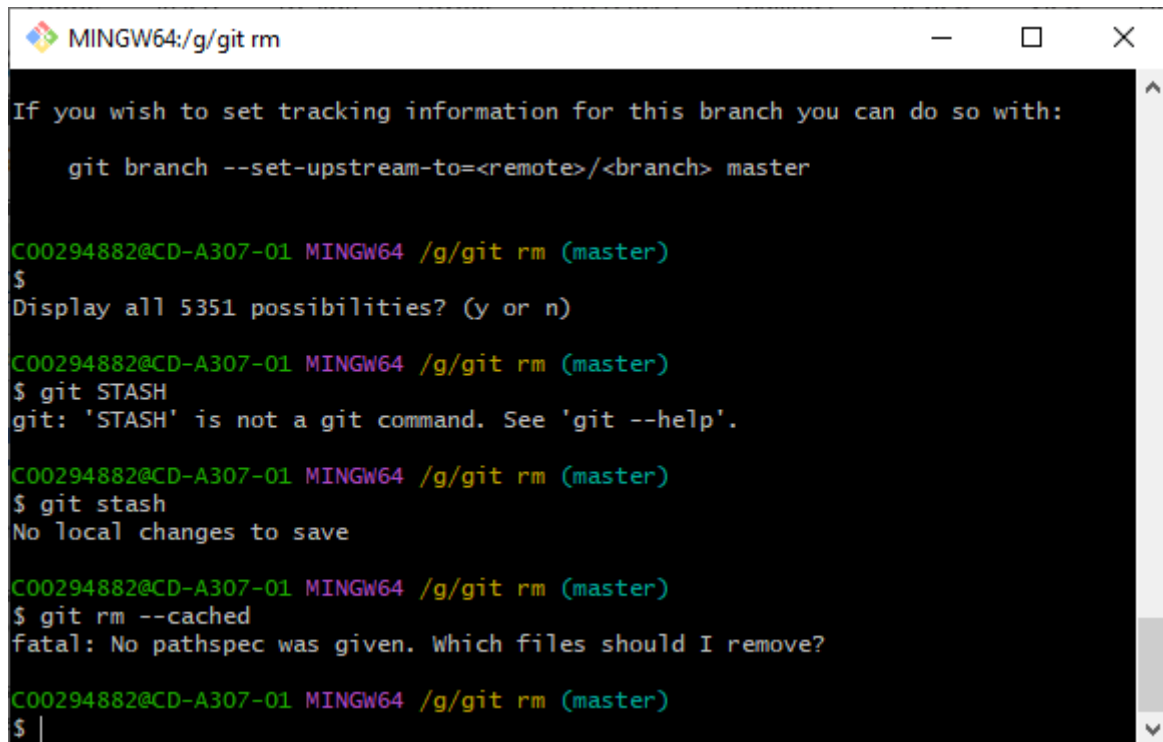
C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
Display all 5351 possibilities? (y or n)

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git STASH
git: 'STASH' is not a git command. See 'git --help'.

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git stash
No local changes to save

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
```

15. Remove = Git rm removes files from staging area in the format : git rm filename. Can use wildcards and -r for recursive. Use -f to use on working directory.



```
MINGW64:/g/git rm

If you wish to set tracking information for this branch you can do so with:

    git branch --set-upstream-to=<remote>/<branch> master

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$
Display all 5351 possibilities? (y or n)

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git STASH
git: 'STASH' is not a git command. See 'git --help'.

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git stash
No local changes to save

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ git rm --cached
fatal: No pathspec was given. Which files should I remove?

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
$ |
```