Git Guide

By Karol Loughlin

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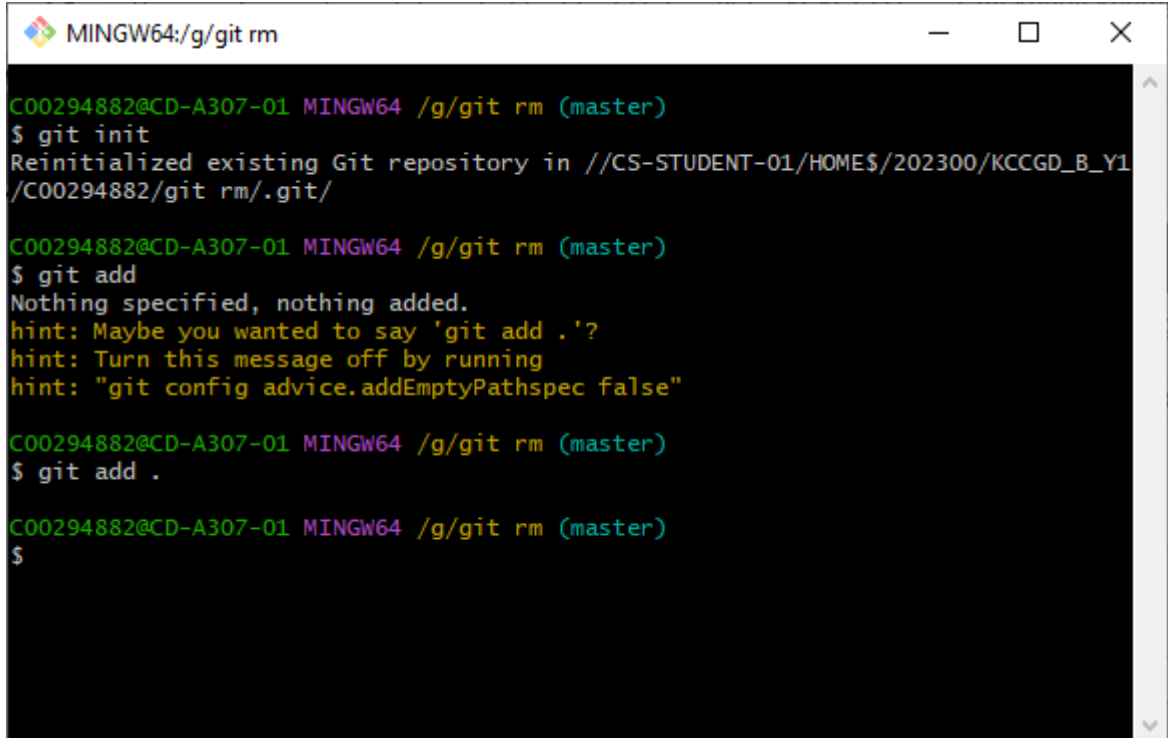

2.

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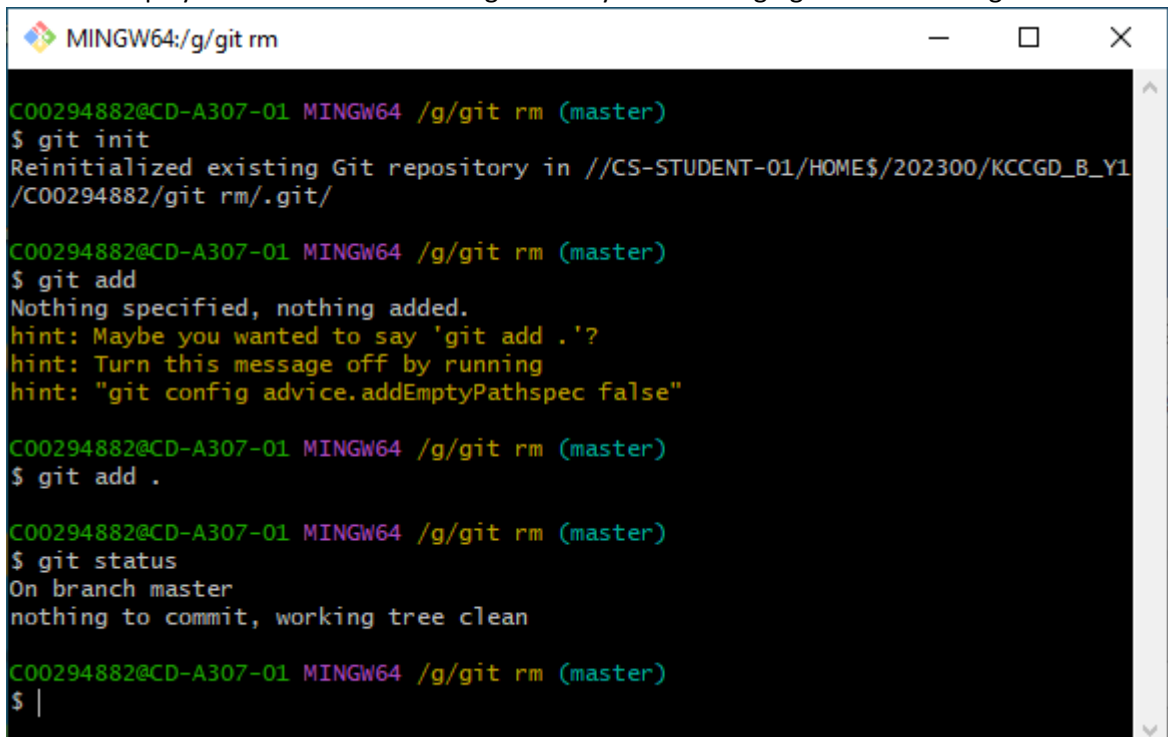
5. Commit = will enter editor mode for comments, and/or make a new revision point on repository. Git commit

```
MINGW64:/g/git rm                                    —    □    ×

/C00294882/git rm/.git/

C00294882@CD-A307-01 MINGW64 /g/git rm (master)
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$ 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)
$ |
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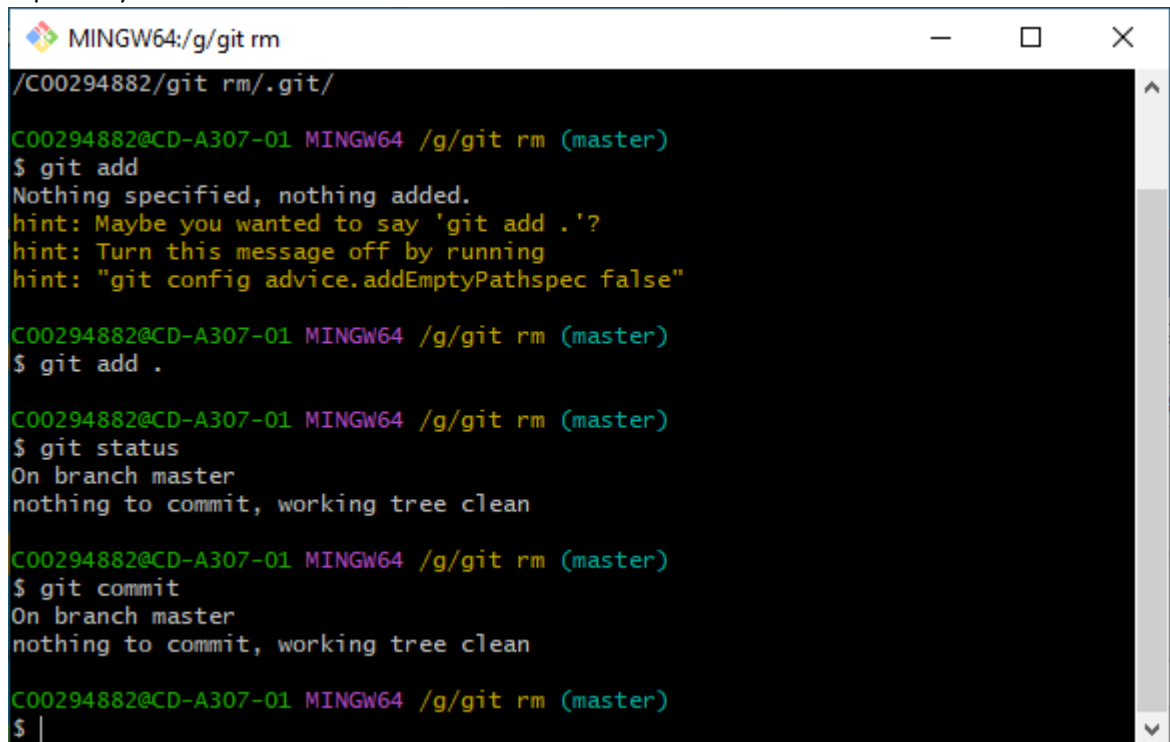
6. Remote = git remote -v : lists repositories on the remote server

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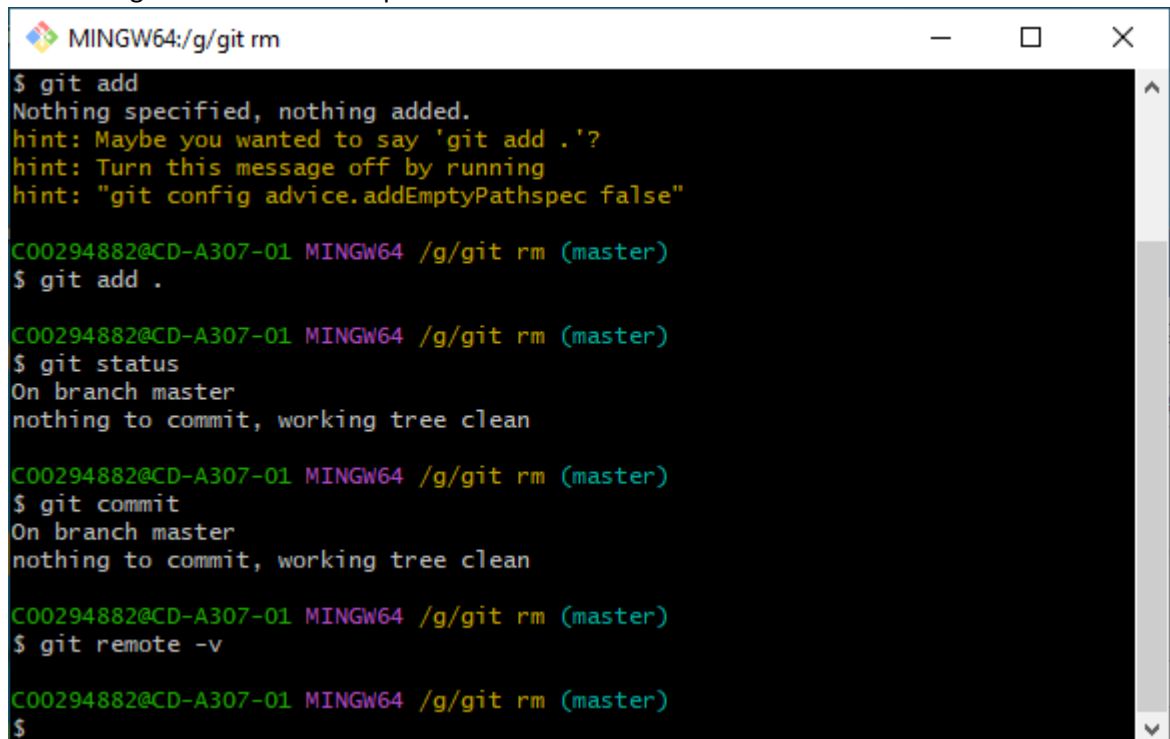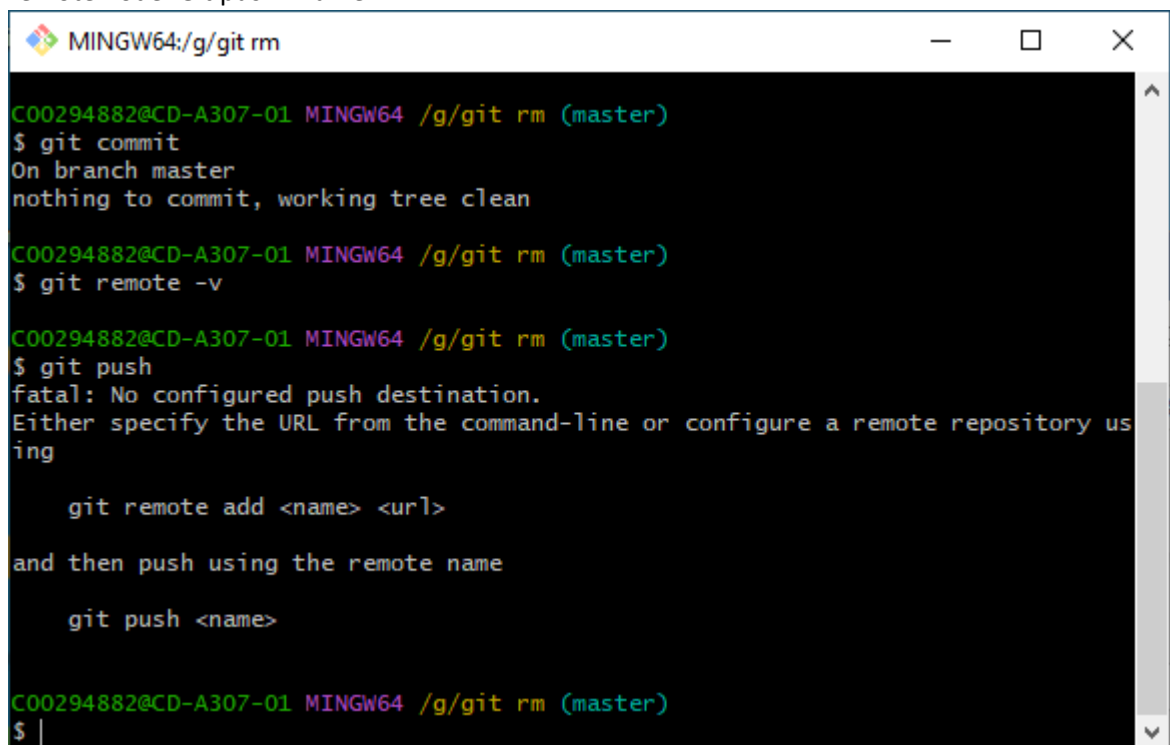
7. Push = this will update the remote node with the current node. User need to associate remote node. Git push <name>

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

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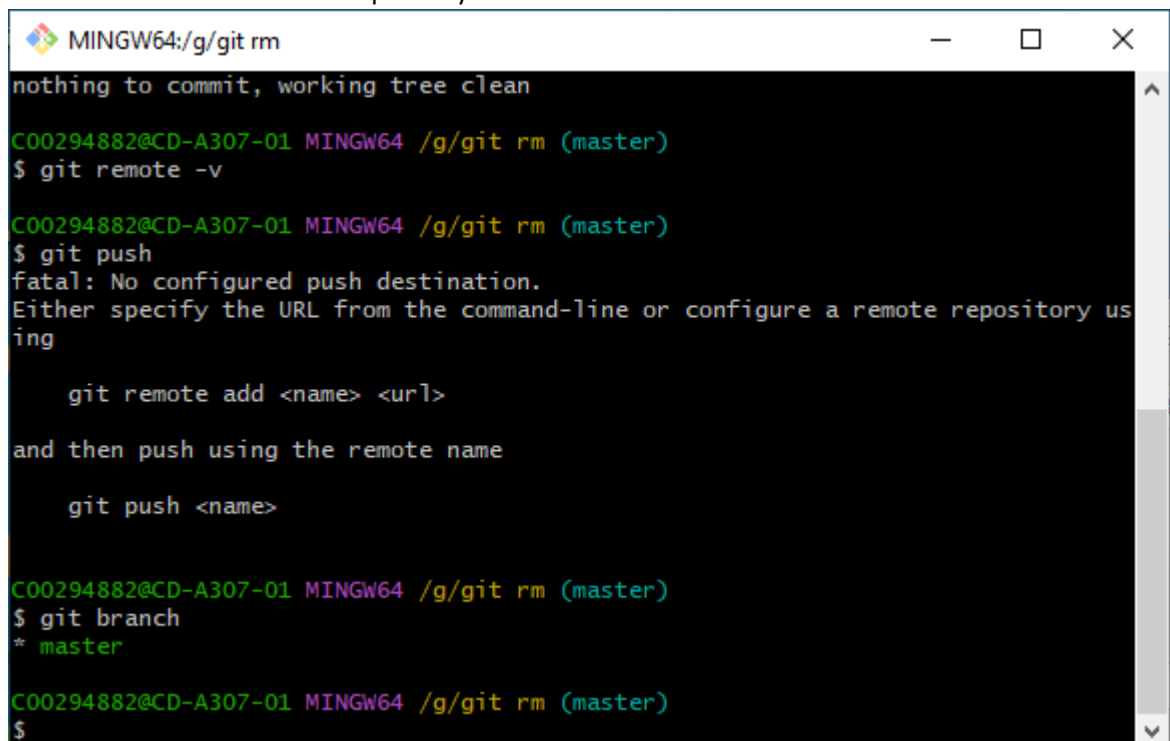
10. Merge, specifically git merge master : merges HEAD with master. Git automatically applies changes if separate. Edit files and then commit.

```
MINGW64:/g/git rm                                          —    □    ✕

fatal: No configured push destination.
Either specify the URL from the command-line or configure a remote repository us
ing

    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)
$ |
```
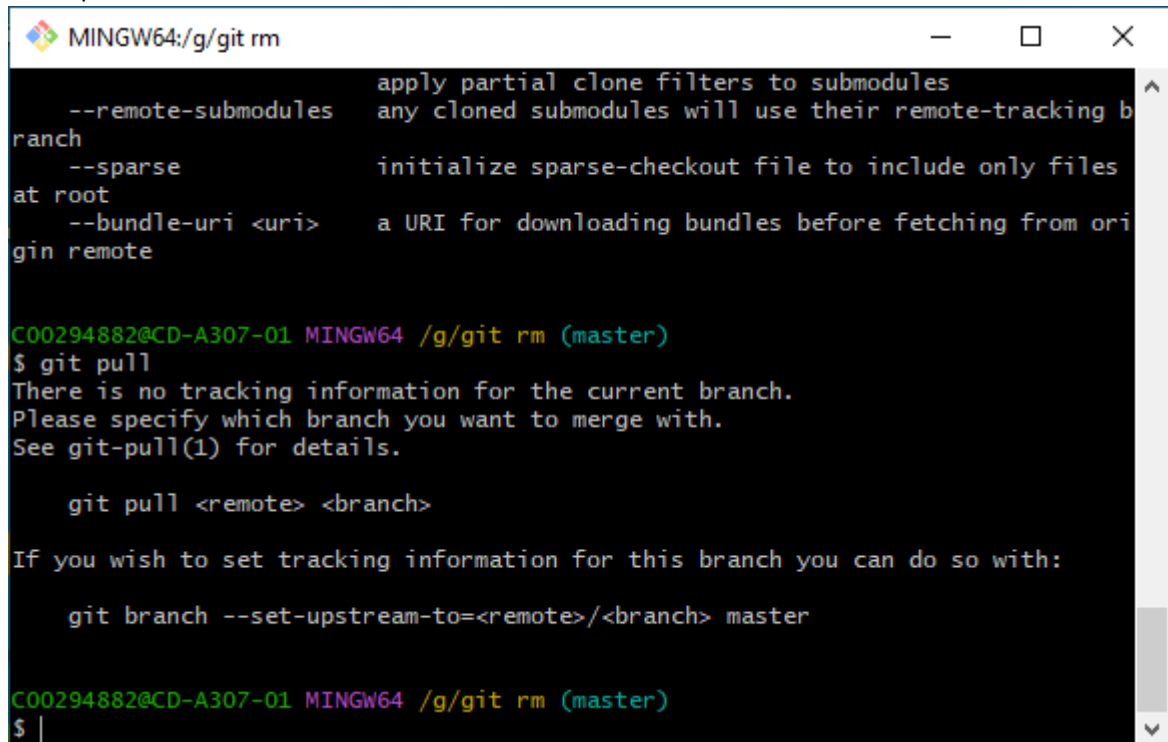
12. Clone = clones a repository

```
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.

```
                        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)
$ 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.

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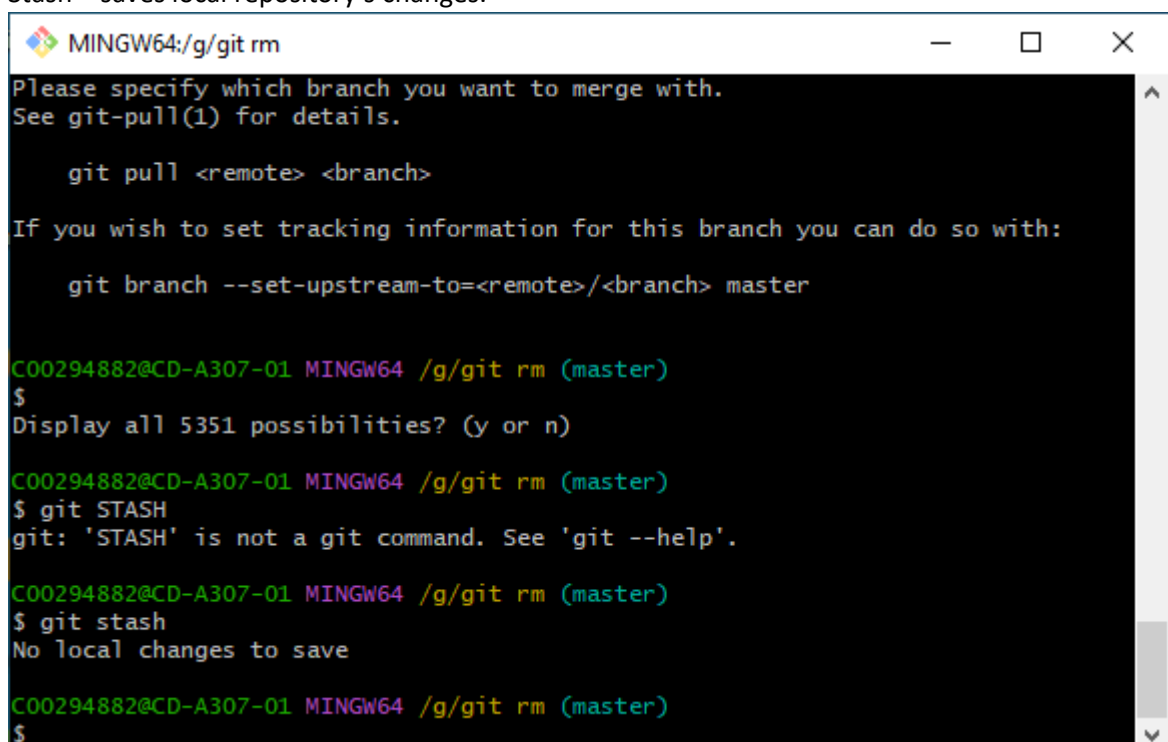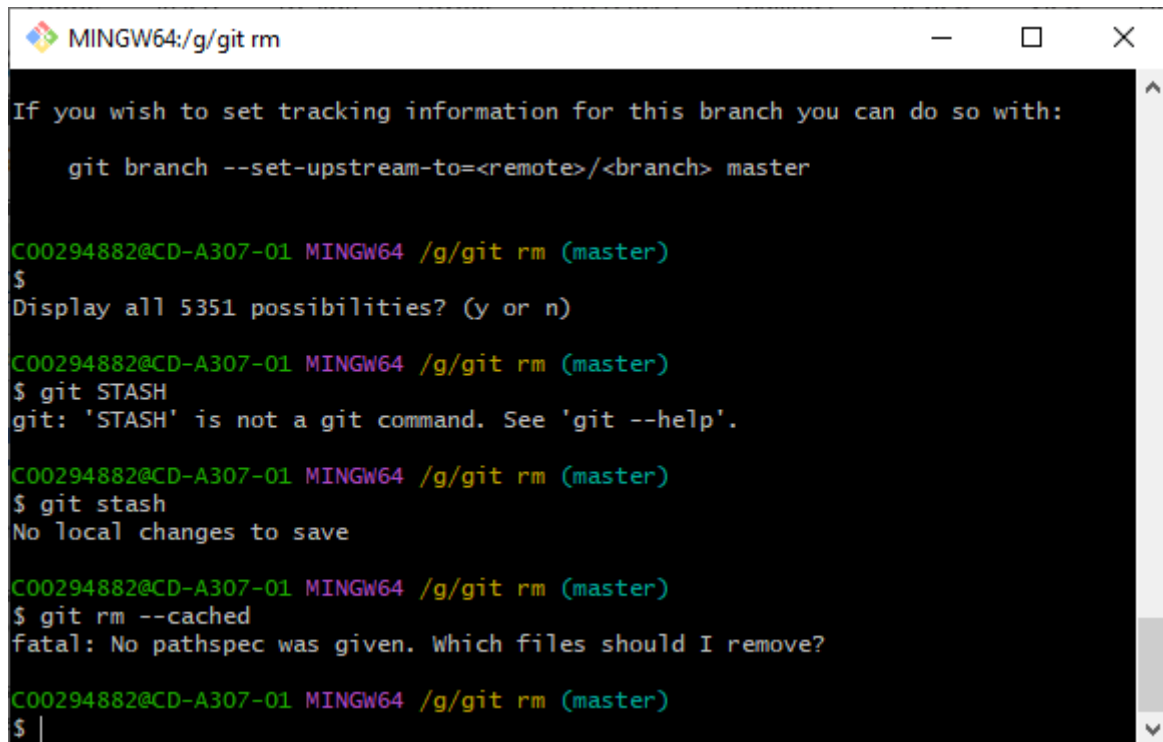
15. Remove = Git rm removes files from staging area in the format : git rm filename. Can use wildcards and -r for recursive. Use - - cached to remove from staging area Use -f to use on working directory.

```
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


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$
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)
$ |
```