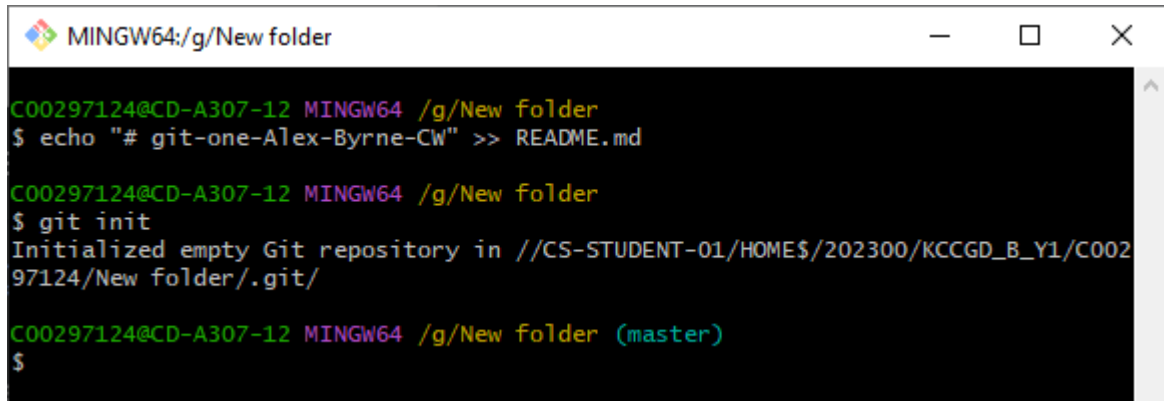## Git init:

It will create a new repository in the folder where git bash was ran allowing you to upload files from a local drive to git hub if one or a group of people
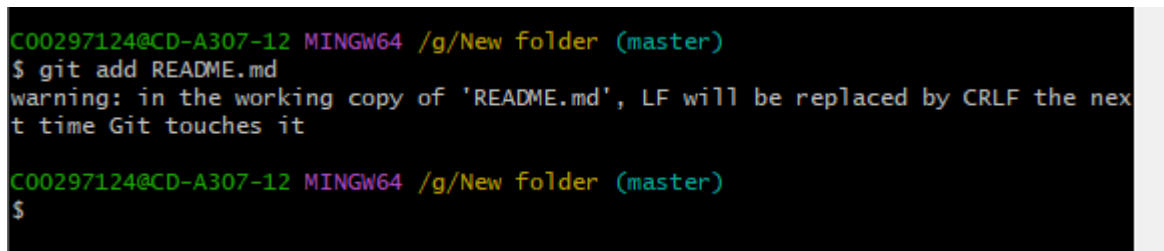
Git add:

Adds a file from the local drive to the staging section of git awaiting a commit to the repository
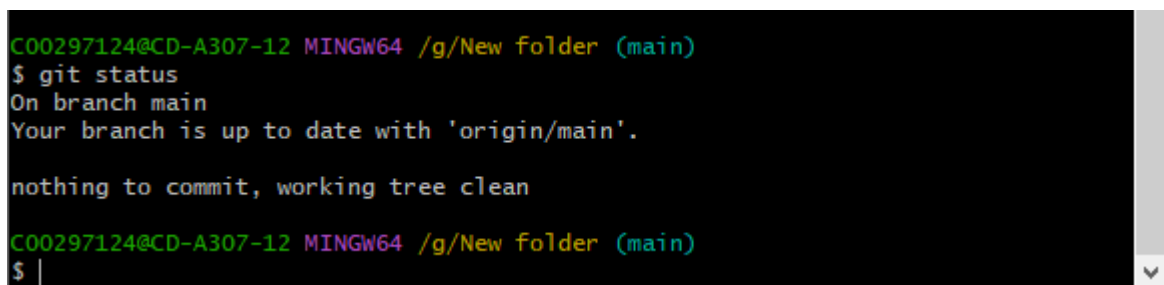
Git status:

gives the currents statues of the current branch being worked on, this can be useful when working in a group or working on something at different times so you know what work has been done
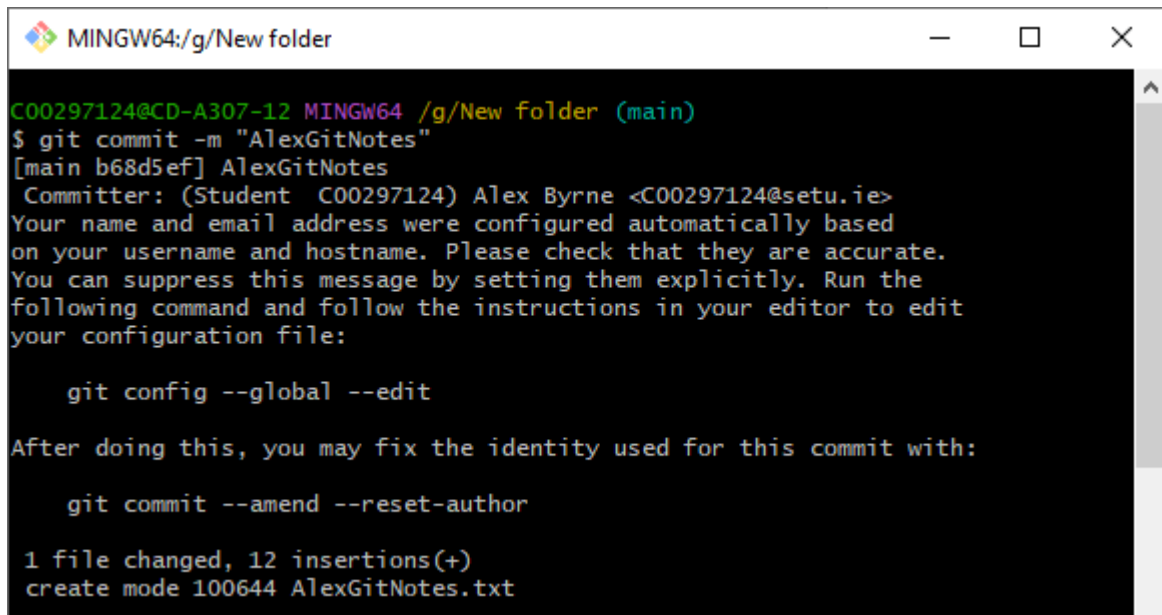
Git commit:

The commit command prepares a file to be pushed into the repository

```
C00297124@CD-A307-12 MINGW64 /g/New folder (main)
$ git commit -m "AlexGitNotes"
[main b68d5ef] AlexGitNotes
 Committer: (Student  C00297124) Alex Byrne <C00297124@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

 1 file changed, 12 insertions(+)
 create mode 100644 AlexGitNotes.txt
```
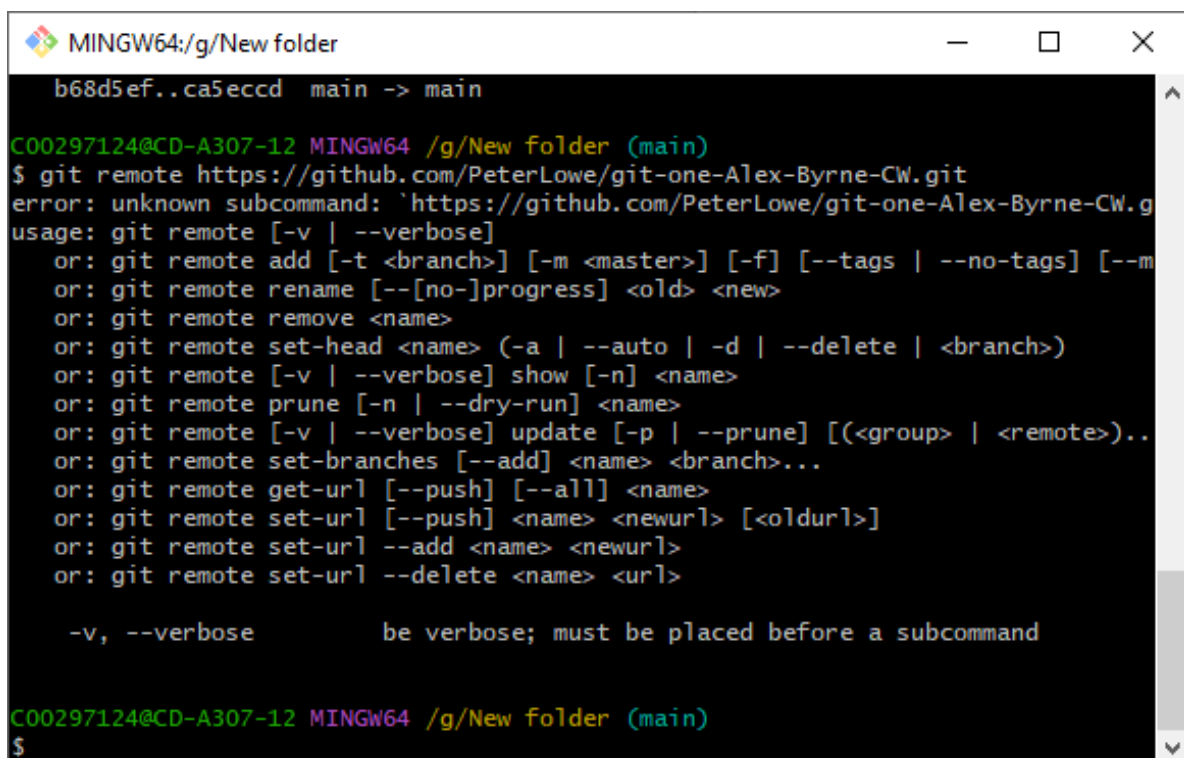
Git Remote:

Creates a link between your computer and the repository on git hub, this is necessary if working from different devices

```
   b68d5ef..ca5eccd  main -> main

C00297124@CD-A307-12 MINGW64 /g/New folder (main)
$ git remote https://github.com/PeterLowe/git-one-Alex-Byrne-CW.git
error: unknown subcommand: `https://github.com/PeterLowe/git-one-Alex-Byrne-CW.g
usage: git remote [-v | --verbose]
   or: git remote add [-t <branch>] [-m <master>] [-f] [--tags | --no-tags] [--m
   or: git remote rename [--[no-]progress] <old> <new>
   or: git remote remove <name>
   or: git remote set-head <name> (-a | --auto | -d | --delete | <branch>)
   or: git remote [-v | --verbose] show [-n] <name>
   or: git remote prune [-n | --dry-run] <name>
   or: git remote [-v | --verbose] update [-p | --prune] [(<group> | <remote>)..
   or: git remote set-branches [--add] <name> <branch>...
   or: git remote get-url [--push] [--all] <name>
   or: git remote set-url [--push] <name> <newurl> [<oldurl>]
   or: git remote set-url --add <name> <newurl>
   or: git remote set-url --delete <name> <url>

   -v, --verbose         be verbose; must be placed before a subcommand


C00297124@CD-A307-12 MINGW64 /g/New folder (main)
$
```

Git push:

Once a file has been added and committed it is ready to be pushed, once the push command is entered the committed files will be sent to the current branch of the repository

```
C00297124@CD-A001-14 MINGW64 /c/Users/C00297124/OneDrive - South East Technologi
cal University/New folder (main)
$ git push
info: please complete authentication in your browser...
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 4 threads
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 489 bytes | 163.00 KiB/s, done.
Total 3 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/PeterLowe/git-one-Alex-Byrne-CW.git
   3967383..006e5d9  main -> main
```

Git Branch:

A branch is a Linear sequence of commits that are able to be updated once work is done on a branch it can be merged to master or deleted

```
MINGW64:/c/Users/C00297124/OneDrive - South East Technological Univers...    —    □    ×

C00297124@CD-A001-14 MINGW64 /c/Users/C00297124/OneDrive - South East Technologi
cal University/New folder (main)
$ git branch -a
  branch_number_2
* main
  remotes/origin/main
```

Git Checkout:

Git checkout allows you to make whatever node you are working on to be the head of the branch but this wont work if the files on the node have been modified

```
C00297124@CD-A001-14 MINGW64 /c/Users/C00297124/OneDrive - South East Technologi
cal University/New folder (main)
$ git checkout main
Already on 'main'
M       Git.docx
Your branch is up to date with 'origin/main'.
```

Git Merge:

Git merge allows you to merge the head of whatever branch you are working on into master, if there will be a problem with this command git will give you a warning.

```
C00297124@CD-A001-14 MINGW64 /c/Users/C00297124/OneDrive - South East Technologi
cal University/New folder (main)
$ git merge main
Already up to date.
```

Git log:

Git log allows you to see the full history of your commits, which can make seeing what you have and have not committed very easy.