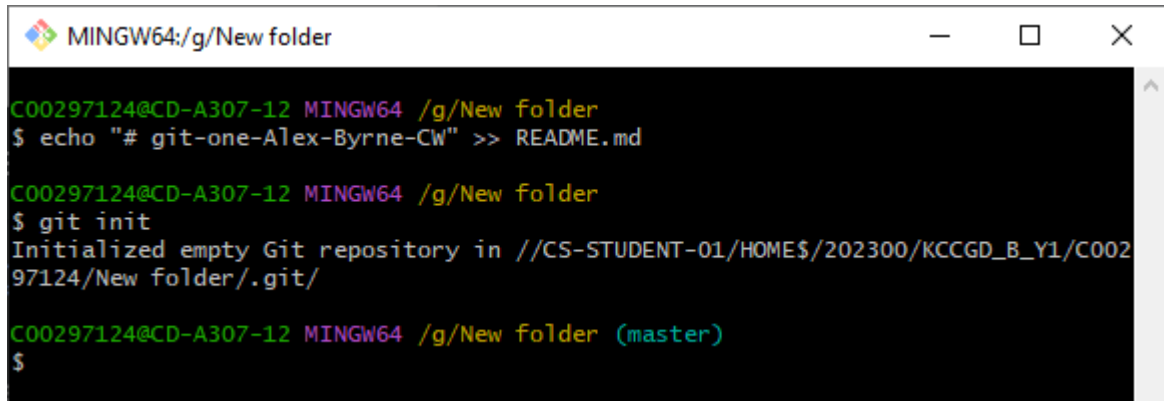


Git init:

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

A terminal window titled 'MINGW64:/g/New folder' with standard window controls. The terminal shows the following commands and output:

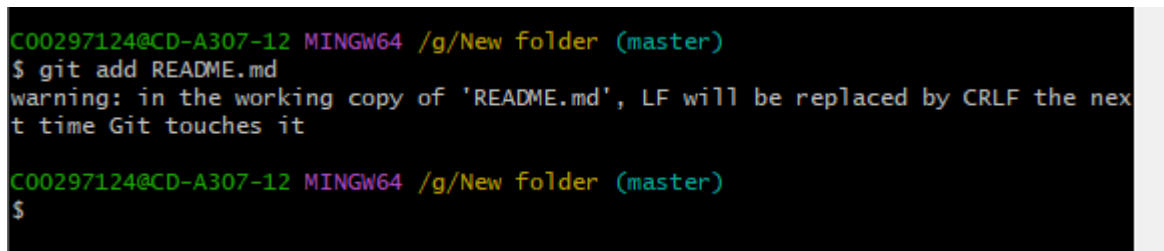
```
C00297124@CD-A307-12 MINGW64 /g/New folder
$ echo "# git-one-Alex-Byrne-CW" >> README.md

C00297124@CD-A307-12 MINGW64 /g/New folder
$ git init
Initialized empty Git repository in //CS-STUDENT-01/HOME$/202300/KCCGD_B_Y1/C00297124/New folder/.git/

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

Git add:

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

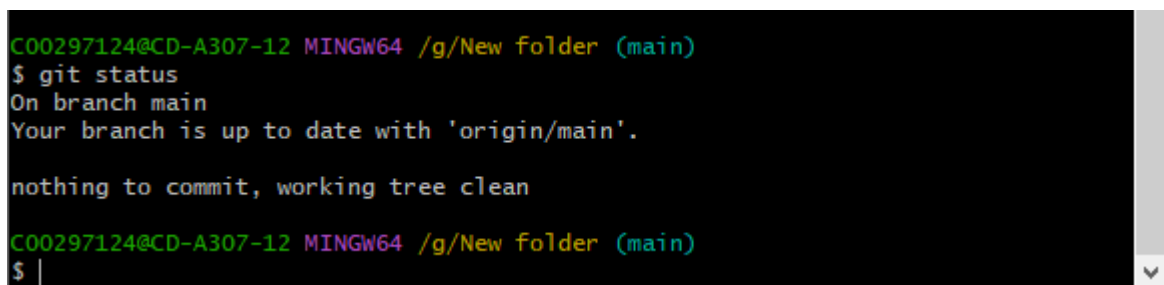
A terminal window showing the 'git add' command being executed. The output includes a warning about line endings.

```
C00297124@CD-A307-12 MINGW64 /g/New folder (master)
$ git add README.md
warning: in the working copy of 'README.md', LF will be replaced by CRLF the next time Git touches it

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

Git status:

gives the current status 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

A terminal window showing the 'git status' command being executed. The output indicates the repository is up to date and the working tree is clean.

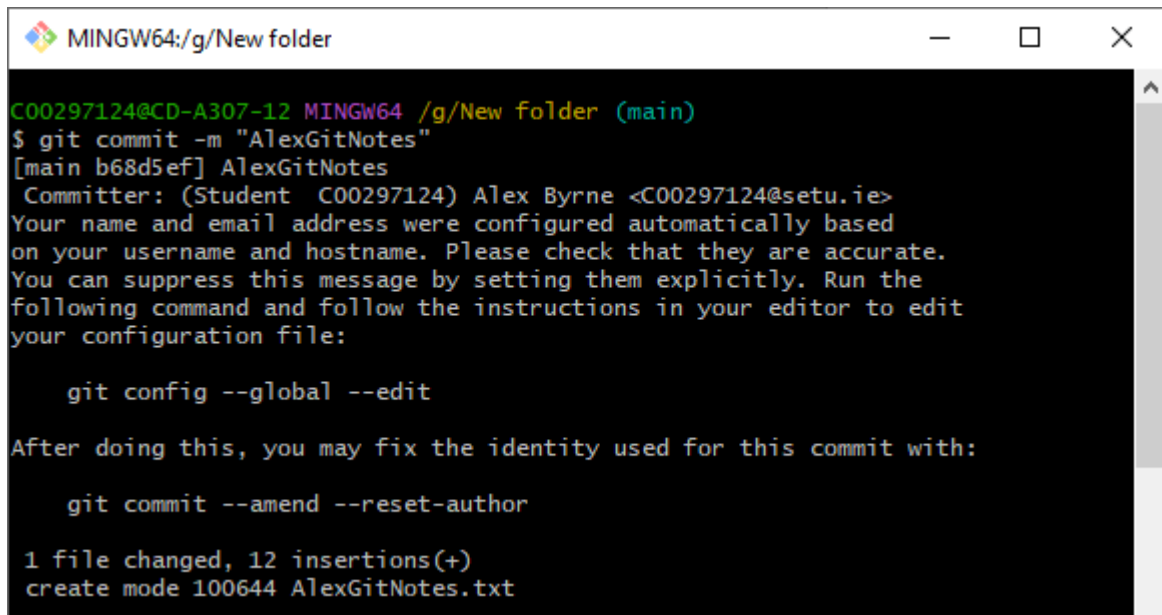
```
C00297124@CD-A307-12 MINGW64 /g/New folder (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

nothing to commit, working tree clean

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

Git commit:

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



```
MINGW64:/g/New folder

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

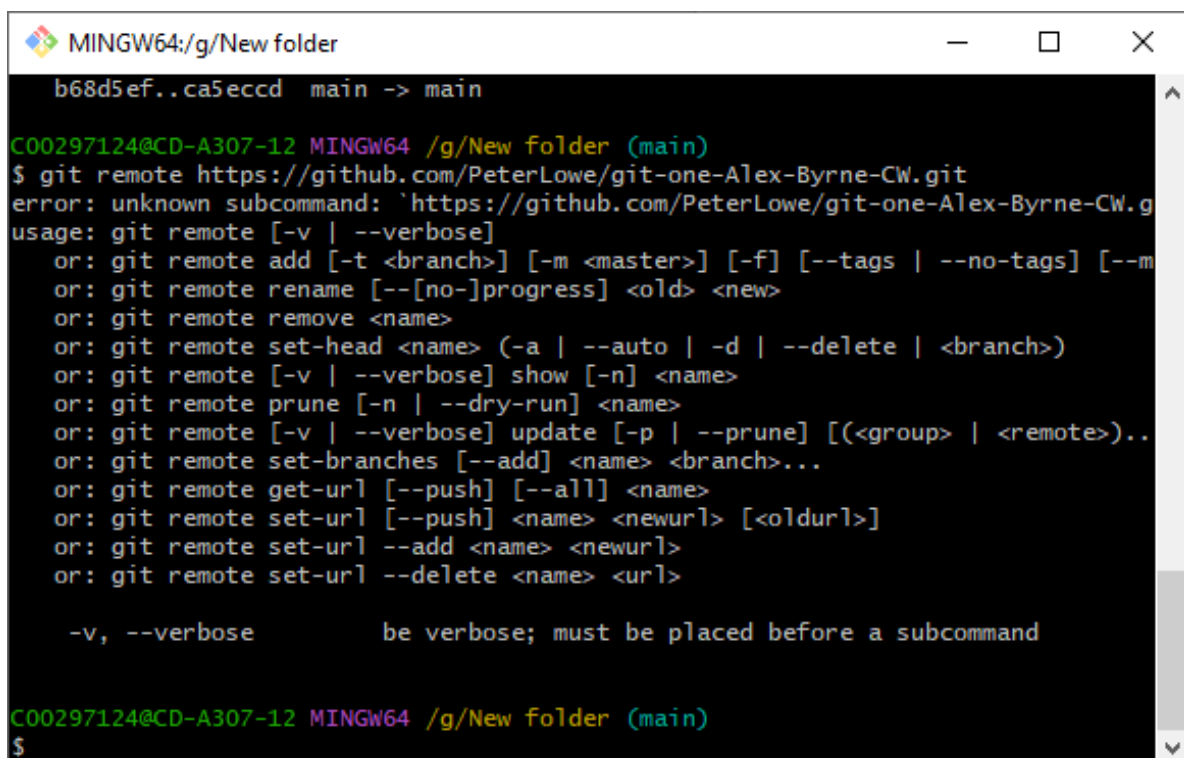
After doing this, you may fix the identity used for this commit with:

    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



```
MINGW64:/g/New folder

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 won't 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.



```
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 log
commit e2f96df1ac0a12e32f9c2e6c831f69cb4f4f5295 (HEAD -> main, origin/main)
Author: (Student C00297124) Alex Byrne <C00297124@setu.ie>
Date: Fri Oct 20 15:52:36 2023 +0100

    Git

commit 42e9a41dcfa3ebefaf2d7f7af7b5782d121f4f49
Author: (Student C00297124) Alex Byrne <C00297124@setu.ie>
Date: Fri Oct 20 15:51:52 2023 +0100

    AlexGitNotes

commit 7b5daab462092071bb61e896fa1f0c3d3157f324
Author: (Student C00297124) Alex Byrne <C00297124@setu.ie>
Date: Fri Oct 20 15:43:27 2023 +0100

    Git

commit 3705991e1aef7ed10b215342a16c8f3ef03f3c1b
Author: (Student C00297124) Alex Byrne <C00297124@setu.ie>
Date: Fri Oct 20 15:42:56 2023 +0100
```