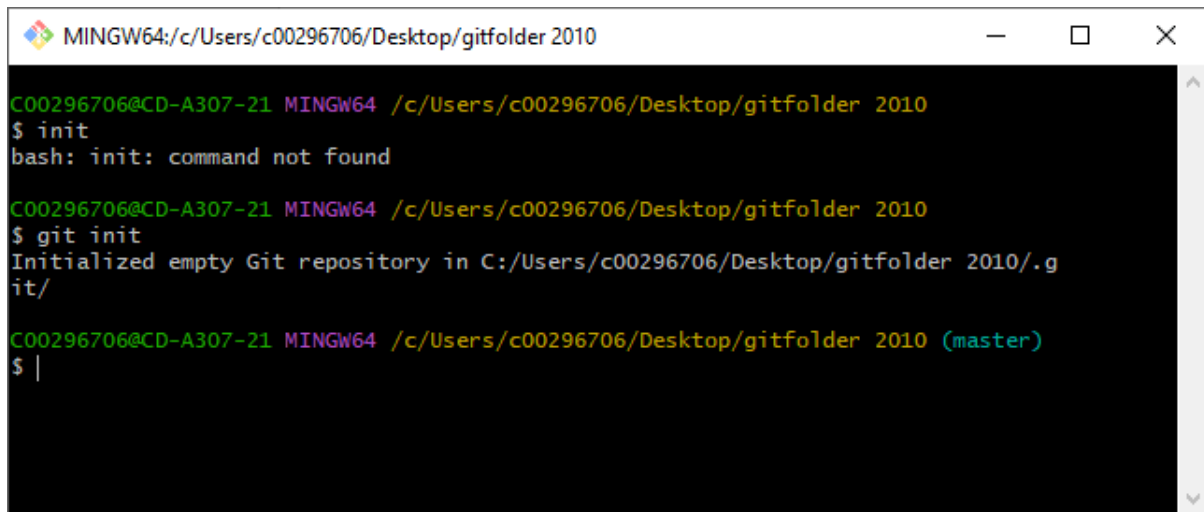


Init

git init creates a new repository in the folder that Git Bash is launched in



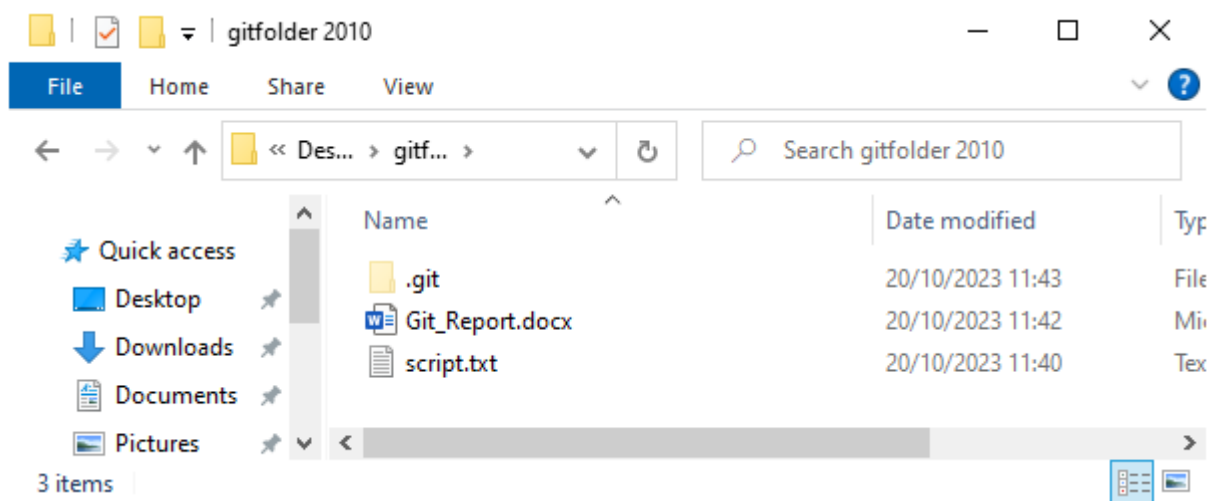
```
MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010
$ init
bash: init: command not found

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010
$ git init
Initialized empty Git repository in C:/Users/c00296706/Desktop/gitfolder 2010/.git/

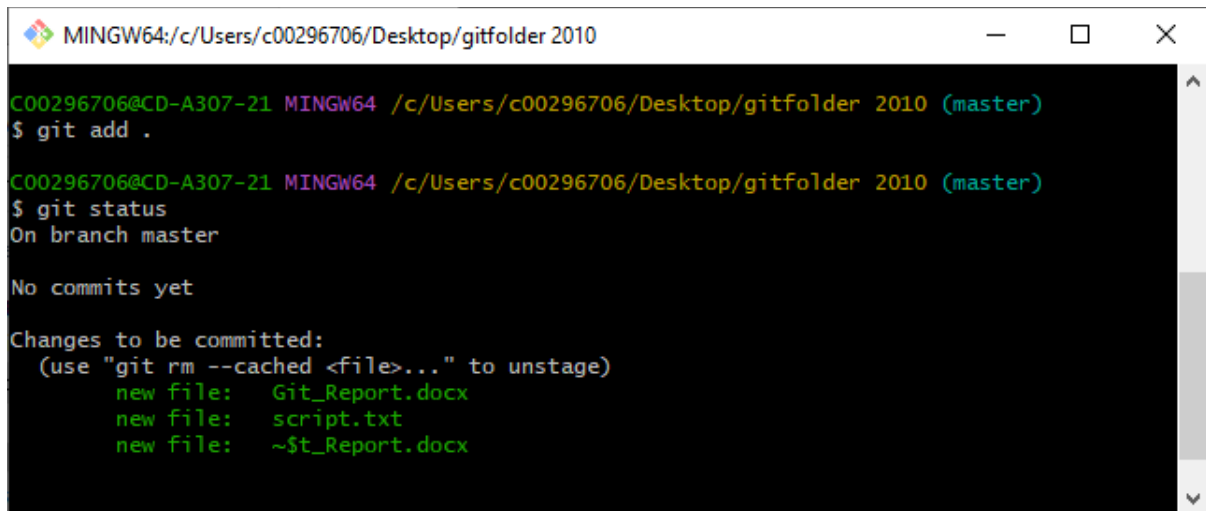
C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ |
```

A hidden .git folder is created that contains this repository



Add

git add adds files to the directory, I will use git add . to add all the new files, we can see that all the files are added using the “git status” command that I will go over next

A screenshot of a MINGW64 terminal window. The title bar shows the path 'MINGW64:/c:/Users/c00296706/Desktop/gitfolder 2010'. The terminal content shows the execution of 'git add .' followed by 'git status'. The status output indicates that three new files are staged for commit: 'Git_Report.docx', 'script.txt', and '~\$t_Report.docx'.

```
MINGW64:/c:/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git add .

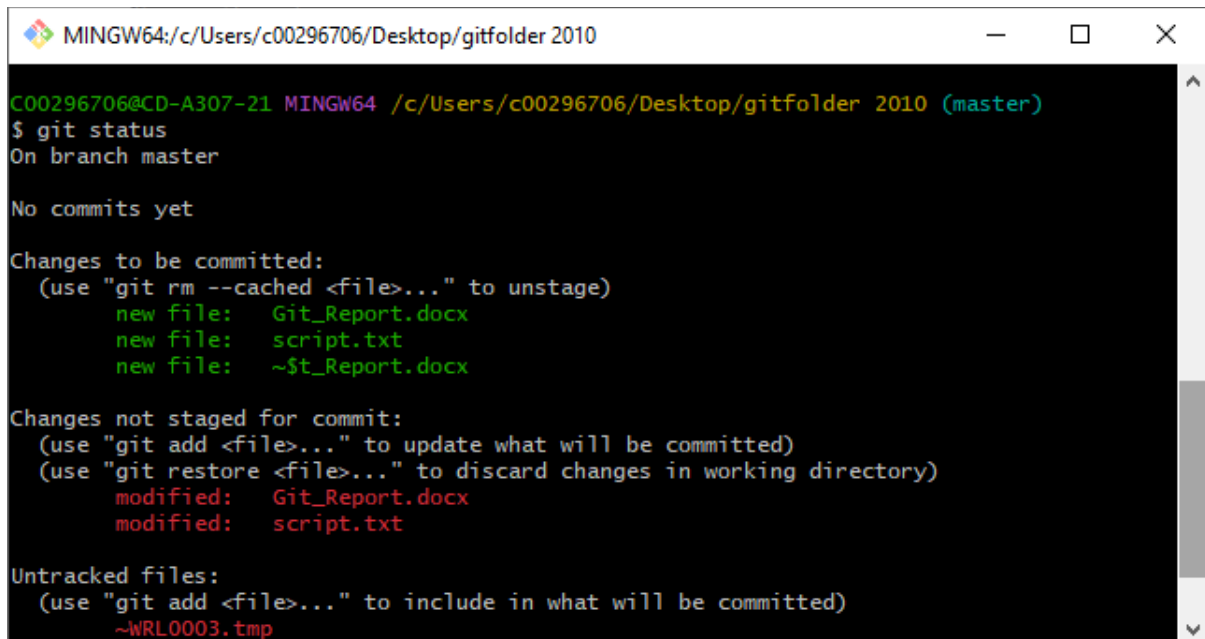
MINGW64:/c:/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Git_Report.docx
        new file:   script.txt
        new file:   ~$t_Report.docx
```

Status

"git status" will list all the files in the directory, modified files will be red and added files will be green



```
MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git status
On branch master

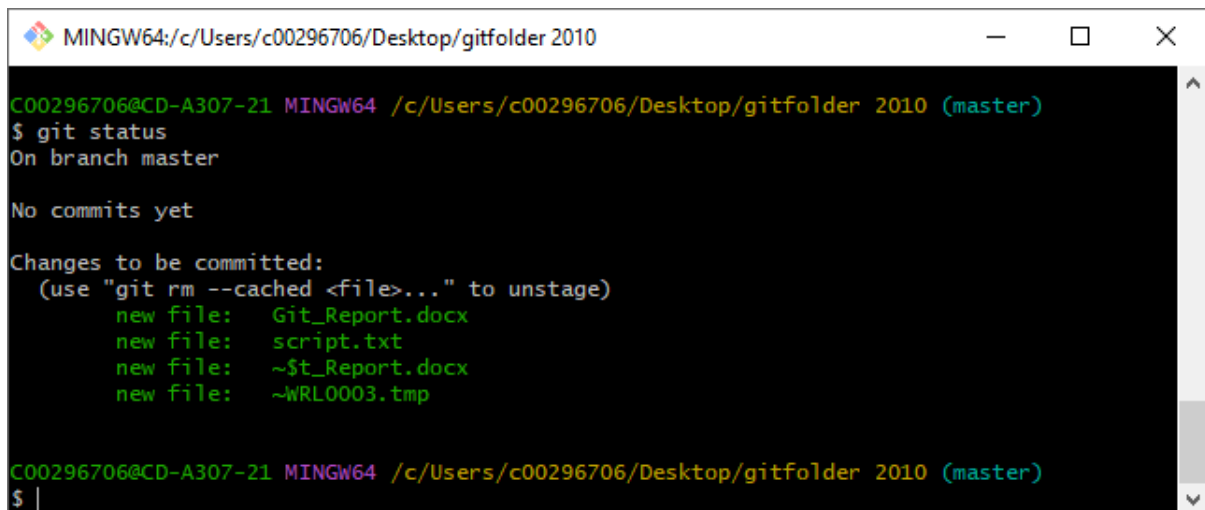
No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Git_Report.docx
        new file:   script.txt
        new file:   ~$t_Report.docx

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:   Git_Report.docx
        modified:   script.txt

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        ~WRL0003.tmp
```

After using git add .



```
MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git status
On branch master

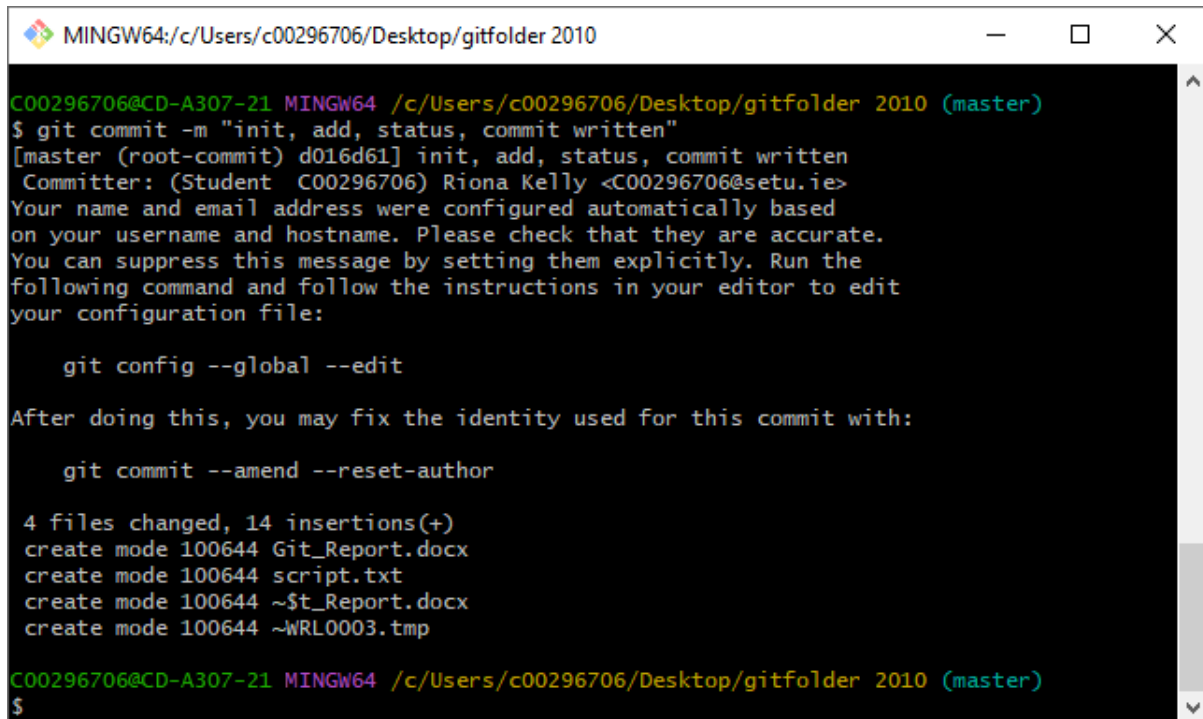
No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Git_Report.docx
        new file:   script.txt
        new file:   ~$t_Report.docx
        new file:   ~WRL0003.tmp

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ |
```

Commit

git commit creates a new commit, commits are snapshots of the repository at different times, I will use git commit -m "init, add, status, commit written" to create a new commit and leave a suitable comment



```
MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git commit -m "init, add, status, commit written"
[master (root-commit) d016d61] init, add, status, commit written
Committer: (Student C00296706) Riona Kelly <C00296706@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:

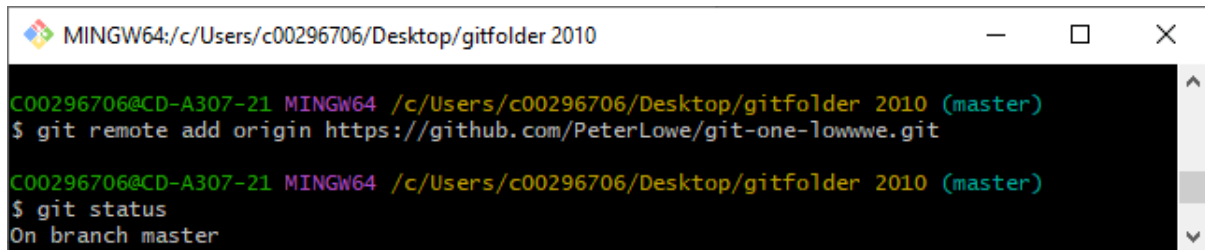
    git commit --amend --reset-author

4 files changed, 14 insertions(+)
create mode 100644 Git_Report.docx
create mode 100644 script.txt
create mode 100644 ~$t_Report.docx
create mode 100644 ~\WRL0003.tmp

C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$
```

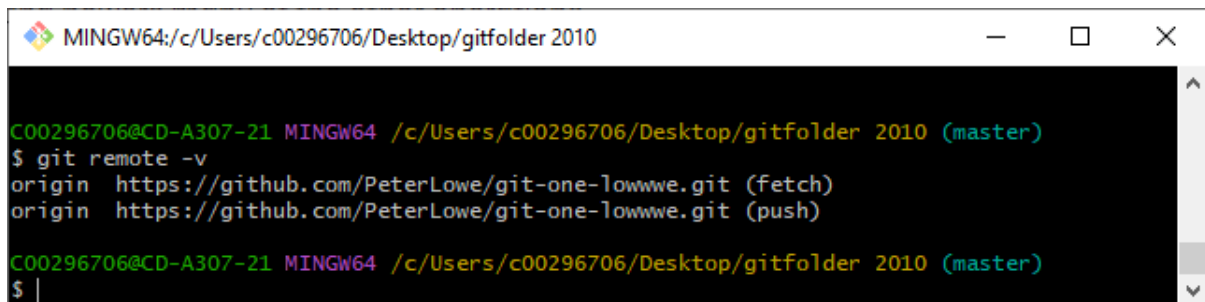
Remote

git remote add <name> <url> adds a new repository

A terminal window titled 'MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010'. The prompt is 'C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)'. The user enters '\$ git remote add origin https://github.com/PeterLowe/git-one-lowwwe.git'. The prompt changes to 'C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)'. The user enters '\$ git status'. The output is 'On branch master'.

```
MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010
C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git remote add origin https://github.com/PeterLowe/git-one-lowwwe.git
C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git status
On branch master
```

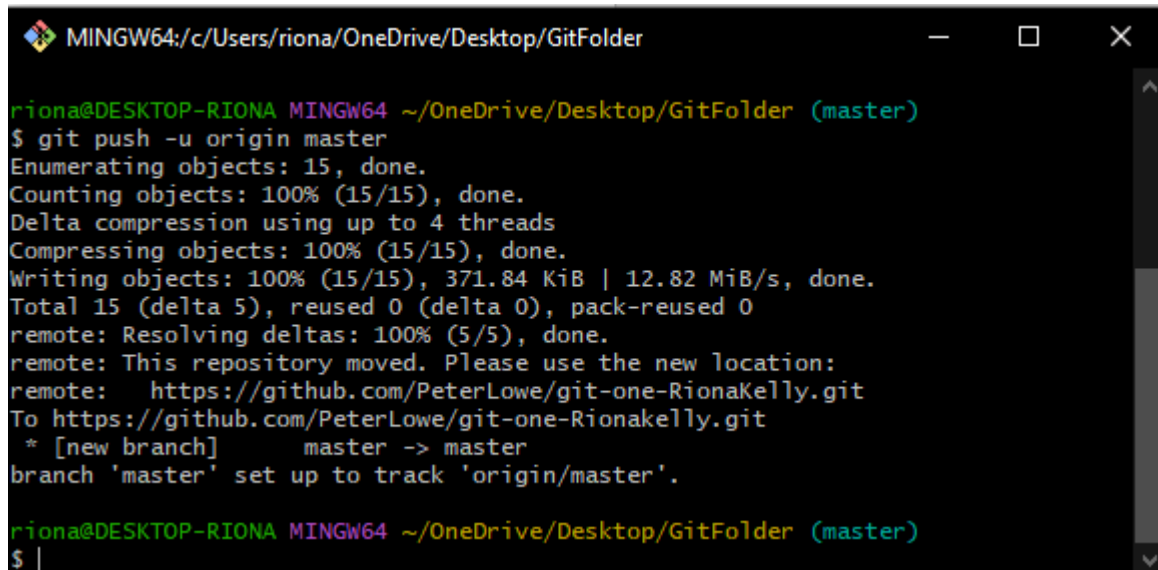
git remote -v lists the remote repositories

A terminal window titled 'MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010'. The prompt is 'C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)'. The user enters '\$ git remote -v'. The output is 'origin https://github.com/PeterLowe/git-one-lowwwe.git (fetch)' and 'origin https://github.com/PeterLowe/git-one-lowwwe.git (push)'. The prompt changes to 'C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)'. The user enters '\$ |'.

```
MINGW64:/c/Users/c00296706/Desktop/gitfolder 2010
C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ git remote -v
origin https://github.com/PeterLowe/git-one-lowwwe.git (fetch)
origin https://github.com/PeterLowe/git-one-lowwwe.git (push)
C00296706@CD-A307-21 MINGW64 /c/Users/c00296706/Desktop/gitfolder 2010 (master)
$ |
```

Push

git push updates the remote node with the current node

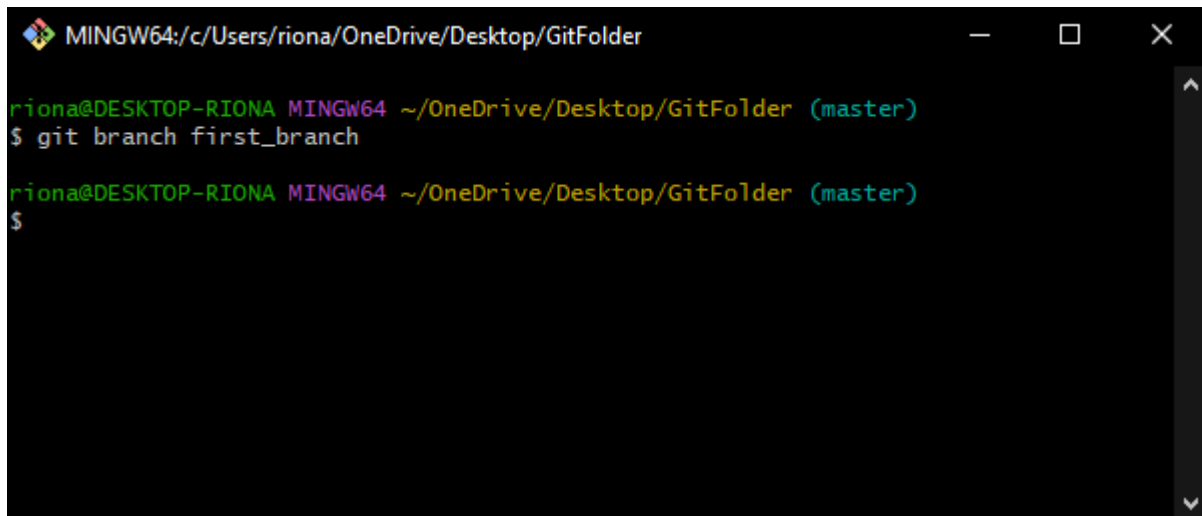
A screenshot of a Windows terminal window titled "MINGW64:/c/Users/riona/OneDrive/Desktop/GitFolder". The terminal shows the execution of the command "git push -u origin master". The output indicates that 15 objects were enumerated, counted, and compressed. The total size of the push is 371.84 KiB at a rate of 12.82 MiB/s. The remote repository is identified as "https://github.com/PeterLowe/git-one-RionaKelly.git". The terminal also shows that the local branch "master" is now set up to track the remote "origin/master".

```
MINGW64:/c/Users/riona/OneDrive/Desktop/GitFolder
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git push -u origin master
Enumerating objects: 15, done.
Counting objects: 100% (15/15), done.
Delta compression using up to 4 threads
Compressing objects: 100% (15/15), done.
Writing objects: 100% (15/15), 371.84 KiB | 12.82 MiB/s, done.
Total 15 (delta 5), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (5/5), done.
remote: This repository moved. Please use the new location:
remote:  https://github.com/PeterLowe/git-one-RionaKelly.git
To https://github.com/PeterLowe/git-one-Rionakelly.git
 * [new branch]      master -> master
branch 'master' set up to track 'origin/master'.

riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ |
```

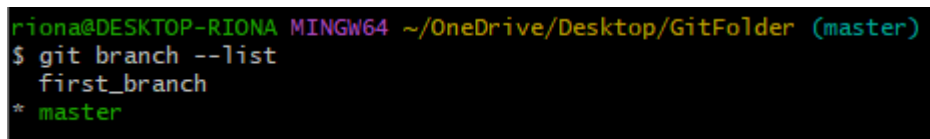
Branch

git branch creates a new branch in the local repository, the term after branch will be the branch name

A terminal window titled 'MINGW64:/c/Users/riona/OneDrive/Desktop/GitFolder' with standard window controls. The prompt is 'riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)'. The command 'git branch first_branch' is entered and executed. The prompt returns to 'riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)' followed by a new '\$' prompt.

```
MINGW64:/c/Users/riona/OneDrive/Desktop/GitFolder
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git branch first_branch
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$
```

git branch --list will list all the branches in the repository

A terminal window showing the command 'git branch --list' being executed. The output lists 'first_branch' and '* master', where the asterisk indicates the current branch.

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git branch --list
first_branch
* master
```

Log

git log displays the entire commit history, you can press <space> for more or <q> to quit

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git log
commit a964aade0bc4a1ea683868672f08445799e7863b (HEAD -> master)
Author: RionaKelly <c00296706@setu.ie>
Date: Mon Oct 23 23:34:03 2023 +0100

    added log and remove

commit e58080200f4820cf8085b827e77fea64dc4b2c29
Author: RionaKelly <c00296706@setu.ie>
Date: Mon Oct 23 23:05:33 2023 +0100

    IT WORKSgit status!

commit ce40db60fd000230382d8a547fdf3ede7bc285ad (origin/master)
Author: RionaKelly <c00296706@setu.ie>
Date: Mon Oct 23 21:46:18 2023 +0100

    test update

commit b2f13f0ebe085b839cabb6fd9dc2245ee72335d5 (first_branch)
Author: (Student C00296706) Riona Kelly <C00296706@setu.ie>
Date: Fri Oct 20 12:36:44 2023 +0100

    remote added

commit d016d61f732547d82faefa28c3f1666767aa7354
Author: (Student C00296706) Riona Kelly <C00296706@setu.ie>
Date: Fri Oct 20 12:15:38 2023 +0100

    init, add, status, commit written
```

git log --graph will drawn the branch paths

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git log --graph
* commit e58080200f4820cf8085b827e77fea64dc4b2c29 (HEAD -> master)
| Author: RionaKelly <c00296706@setu.ie>
| Date: Mon Oct 23 23:05:33 2023 +0100
|
|     IT WORKSgit status!
|
* commit ce40db60fd000230382d8a547fdf3ede7bc285ad (origin/master)
| Author: RionaKelly <c00296706@setu.ie>
| Date: Mon Oct 23 21:46:18 2023 +0100
|
|     test update
|
* commit b2f13f0ebe085b839cabb6fd9dc2245ee72335d5 (first_branch)
| Author: (Student C00296706) Riona Kelly <C00296706@setu.ie>
| Date: Fri Oct 20 12:36:44 2023 +0100
|
|     remote added
|
* commit d016d61f732547d82faefa28c3f1666767aa7354
| Author: (Student C00296706) Riona Kelly <C00296706@setu.ie>
| Date: Fri Oct 20 12:15:38 2023 +0100
|
|     init, add, status, commit written
```


Log cont.

git log --stat shows the files altered and the lines that have been changed

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git log --stat
commit e58080200f4820cf8085b827e77fea64dc4b2c29 (HEAD -> master)
Author: RionaKelly <c00296706@setu.ie>
Date: Mon Oct 23 23:05:33 2023 +0100

    IT WORKSgit status!

GitReport.docx | Bin 200797 -> 232523 bytes
GitReport.pdf  | Bin 198373 -> 0 bytes
script.txt     | 12 ++-----
3 files changed, 2 insertions(+), 10 deletions(-)

commit ce40db60fd000230382d8a547fd3ede7bc285ad (origin/master)
Author: RionaKelly <c00296706@setu.ie>
Date: Mon Oct 23 21:46:18 2023 +0100

    test update

Git_Report.docx => GitReport.docx | Bin 185619 -> 200797 bytes
GitReport.pdf    | Bin 0 -> 198373 bytes
script.txt       | 28 ++++++
~$t_Report.docx  | Bin 162 -> 0 bytes
~WRL0003.tmp     | Bin 12236 -> 0 bytes
5 files changed, 28 insertions(+)

commit b2f13f0ebe085b839cabb6fd9dc2245ee72335d5 (first_branch)
Author: (Student C00296706) Riona Kelly <C00296706@setu.ie>
Date: Fri Oct 20 12:36:44 2023 +0100

    remote added

Git_Report.docx | Bin 76012 -> 185619 bytes
script.txt      | 23 ++++++-----
2 files changed, 18 insertions(+), 5 deletions(-)

commit d016d61f732547d82faefa28c3f1666767aa7354
Author: (Student C00296706) Riona Kelly <C00296706@setu.ie>
Date: Fri Oct 20 12:15:38 2023 +0100

    init, add, status, commit written

Git_Report.docx | Bin 0 -> 76012 bytes
script.txt      | 14 ++++++
~$t_Report.docx | Bin 0 -> 162 bytes
~WRL0003.tmp    | Bin 0 -> 12236 bytes
4 files changed, 14 insertions(+)
```

git log -n will only display the last (n) commits

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git log -1
commit e58080200f4820cf8085b827e77fea64dc4b2c29 (HEAD -> master)
Author: RionaKelly <c00296706@setu.ie>
Date: Mon Oct 23 23:05:33 2023 +0100

    IT WORKSgit status!
```

Stash

git stash makes a local copy of the current working directory

git stash list lists all the previously pushed stashes

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git stash
Saved working directory and index state WIP on master: d5c20c6 log fixed

riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git stash list
stash@{0}: WIP on master: d5c20c6 log fixed
```

Remove/Rm

git rm deletes files

Here I delete my old pdf file so that it doesn't cause any problems since I'll have to make a new one later

```
riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

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

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

riona@DESKTOP-RIONA MINGW64 ~/OneDrive/Desktop/GitFolder (master)
$ git rm GitReport.pdf
rm 'GitReport.pdf'
```