git init

Initialises repository (repo) in working directory, defaults as master, can be renamed to main or anything else with commands like git branch –m

Format /$ git init/

```
C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (GitProjec
tOne)
$ git init
Initialized empty Git repository in C:/Users/C00297034/Desktop/GitProjectOne/.gi
t/

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (master)
$ git branch -m main

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ |
```

git add

Adds specified files to the repository from folder, until this is performed. Status will show them as red or unstaged, / $ git add . / adds all files to local repo.

/$ git add/

git status

Checks current status of repository and all files in it, and whether they are staged unstaged, and all changes yet to be committed.

/$ git status/

```
C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git add .

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Name with spaces.txt
        new file:   TheCoolerName.txt
        new file:   randomName.txt


C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ |
```

Name	Date modified	Type	Size
.git	20/10/2023 09:55	File folder	
Name with spaces	20/10/2023 09:54	Text Document	0 KB
TheCoolerName	20/10/2023 09:54	Text Document	0 KB
randomName	20/10/2023 09:54	Text Document	0 KB

git commit

Lets you commit all changes to main (master). This creates a new node which can be configured and worked on with other commands.

Format: /$ git commit –m [nodeName]/

```
C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git commit -m firstCommit
[main (root-commit) d23d4da] firstCommit
 Committer: (Student  C00297034) Cialan Patterson <C00297034@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

 3 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 Name with spaces.txt
 create mode 100644 TheCoolerName.txt
 create mode 100644 randomName.txt

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$
```

git branch

Creates a new branch on main or current branch, this branch will not be immediately switched to, instead needing the command /$ git switch [branchName] / or similar with checkout to be activated, /$ git switch –c [newBranchName]/ can also be used if you haven't already created a branch.

Format: /$ git branch {branchName/ or /$ git branch –a/ to view all branches in local dir

```
C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git branch superCoolBranch

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git branch -a
* main
  superCoolBranch
```

```
C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git branch lameBranch

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git branch -a
  lameBranch
* main
  superCoolBranch

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git branch -d lameBranch
Deleted branch lameBranch (was d23d4da).

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git branch -a
* main
  superCoolBranch

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$
```

```
C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git switch superCoolBranch
Switched to branch 'superCoolBranch'

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (superCoolBranch)
$ git switch main
Switched to branch 'main'

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (main)
$ git switch -c sadBranch
Switched to a new branch 'sadBranch'

C00297034@CD-A307-20 MINGW64 /c/Users/C00297034/Desktop/GitProjectOne (sadBranch)
$
```

git merge

Allows you to merge divergent branches to main, recommended to use git config first to specify how branches should deal with repeat files

Format: /$ git merge [HEAD]/ from main

```
pattersoncialan@penguin:~/GitProjectOne$ git switch main
Switched to branch 'main'
pattersoncialan@penguin:~/GitProjectOne$ git merge superCoolBranch
Updating d23d4da..0d6cb77
Fast-forward
 ThisFileIsOnSUPERCOOLBRANCH.txt | 0
 file.txt                        | 0
 2 files changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 ThisFileIsOnSUPERCOOLBRANCH.txt
 create mode 100644 file.txt
pattersoncialan@penguin:~/GitProjectOne$
```

git log

Displays commit history

Format: /$ git log/

```
pattersoncialan@penguin:~/GitProjectOne$ git log
commit ed3fd8bd15b82b3d681058d5671a5e36ea40a068 (HEAD -> main)
Author: pattersoncialan <c00297034@setu.ie>
Date:    Sun Oct 22 20:43:08 2023 +0100

    nodeLikeFiveOrSomething

commit 0d6cb77ddec9899c4effceaa73b286c2243049eb (superCoolBranch)
Author: pattersoncialan <c00297034@setu.ie>
Date:    Sun Oct 22 20:35:30 2023 +0100

    newNode

commit 777ab9b16de1cc606dbd9c71854a3d75d21bc2a7
Author: (Student  C00297034) Cialan Patterson <C00297034@setu.ie>
Date:    Fri Oct 20 10:40:10 2023 +0100

    woah

commit d23d4dae6d1b71406b545f310be057e89c398276
Author: (Student  C00297034) Cialan Patterson <C00297034@setu.ie>
Date:    Fri Oct 20 10:06:03 2023 +0100

    firstCommit
pattersoncialan@penguin:~/GitProjectOne$
```

git stash

Returns to previous commit, without discarding changes, stashed working trees may be called   upon again using /$ git stash pop/ or other similar commands

Format /$ git stash/

```
pattersoncialan@penguin:~/GitProjectOne$ git status
On branch main
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        new file:   thisWillBeStashed.txt

pattersoncialan@penguin:~/GitProjectOne$ git stash
Saved working directory and index state WIP on main: b17fd8a fileIsNoMore
pattersoncialan@penguin:~/GitProjectOne$ git status
On branch main
nothing to commit, working tree clean
pattersoncialan@penguin:~/GitProjectOne$
```

git push

Pushes commits on branch to remote directory

Format: /$ git push –u [remote] main/

git rm

Removes a file or a directory with /$ git rm –r [directoryName]/

Format /$ git rm [fileName]/

Files

ThisFileIsOnSUP...

bleep.txt

TheCoolerName...

randomName.txt

Name with spac...