

# Practical 1

## Download and install git:

<https://www.git-scm.com/downloads>

Not you may need to select only for this user (if you do not have admin rights).  
Ensure you select add to PATH option when installing

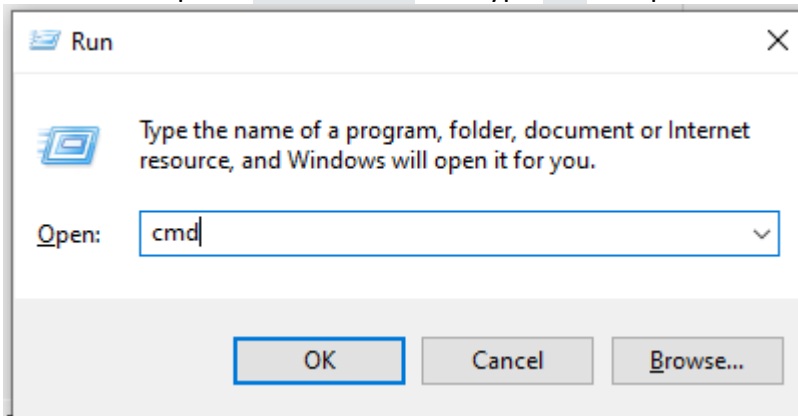
## Create a git repository:

Make a new folder where you want your git repository to be, name it something helpful like 'MAF-WORLD'

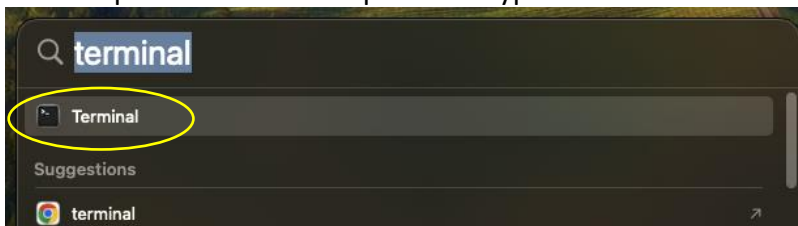
*NB: A git repository name can contain spaces, but it is unadvisable to do this as GitHub does not allow spaces. Instead use the - or \_ characters.*

Open a terminal / command prompt

- On Windows press Windows + R and type cmd and press ok



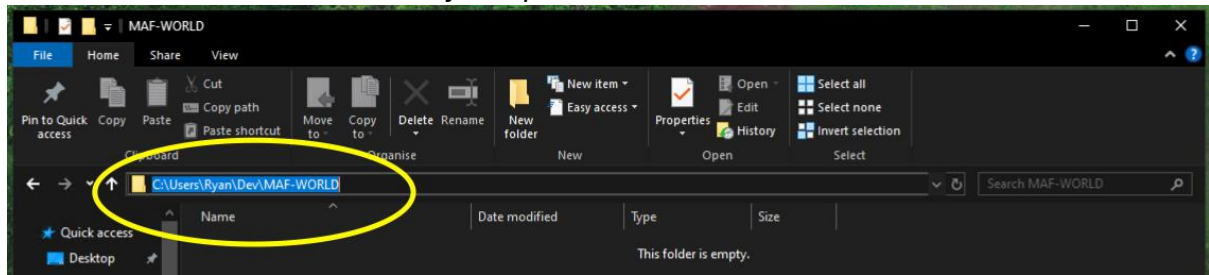
- On Mac press command + space and type terminal and click terminal



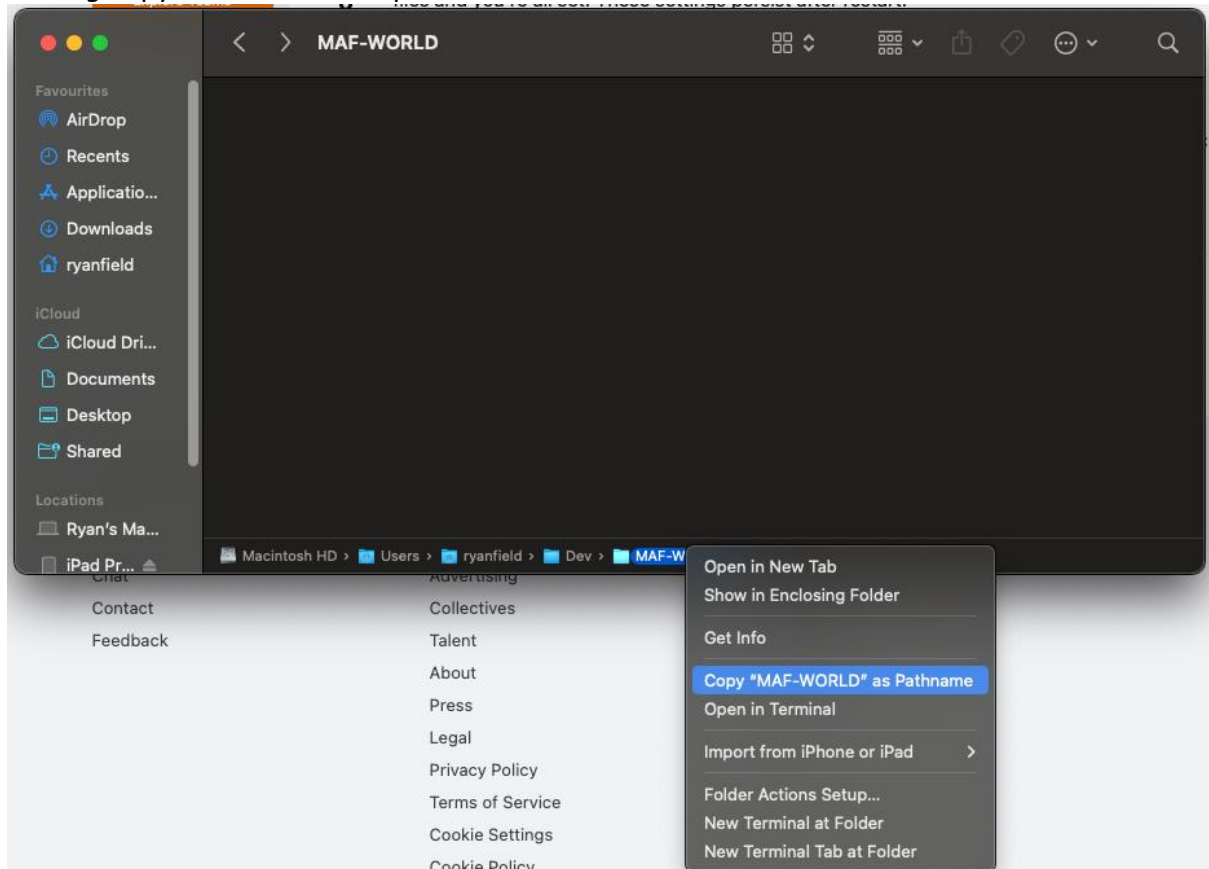
In the terminal / command prompt window change into the newly created folder

```
cd C:\Users\Ryan\Dev\MAF-WORLD
```

*NB: on windows this will be in the file explorer address bar:*



*NB: on mac you can copy the path name by pressing option + command + p to show the folder address at the bottom of the window and then right clicking the folder name and clicking copy "folder name as pathname"*

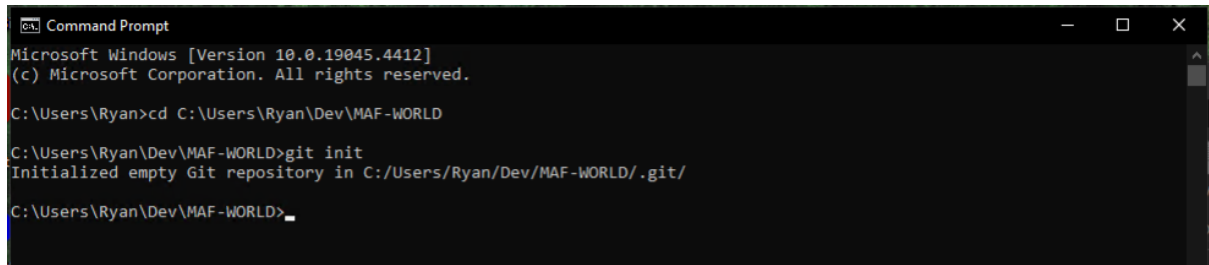


## Initialise the git repository

In the terminal / command prompt type:

```
git init
```

and press enter.



```
Command Prompt
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Ryan>cd C:\Users\Ryan\Dev\MAF-WORLD

C:\Users\Ryan\Dev\MAF-WORLD>git init
Initialized empty Git repository in C:/Users/Ryan/Dev/MAF-WORLD/.git/

C:\Users\Ryan\Dev\MAF-WORLD>
```

You should receive a message stating the repository has been initialised

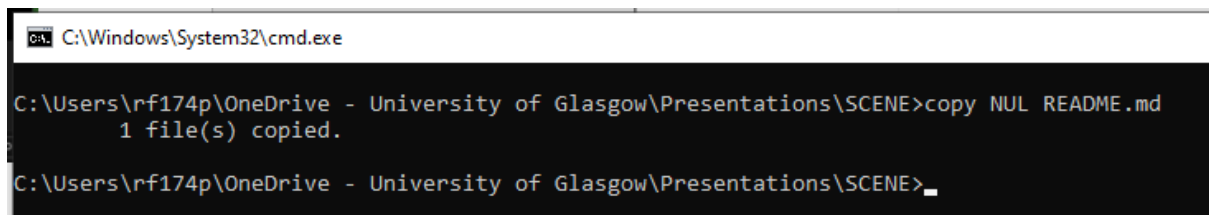
## Add a README.md file

Create a text file named README.md

On Windows you can do this by typing the following in the command prompt:

```
copy NUL README.md
```

and press enter.



```
C:\Windows\System32\cmd.exe

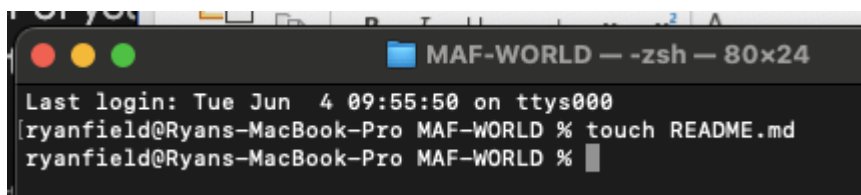
C:\Users\rf174p\OneDrive - University of Glasgow\Presentations\SCENE>copy NUL README.md
1 file(s) copied.

C:\Users\rf174p\OneDrive - University of Glasgow\Presentations\SCENE>
```

On Mac you can do this by typing the following in the terminal:

```
touch README.md
```

and press enter.



```
MAF-WORLD - zsh - 80x24

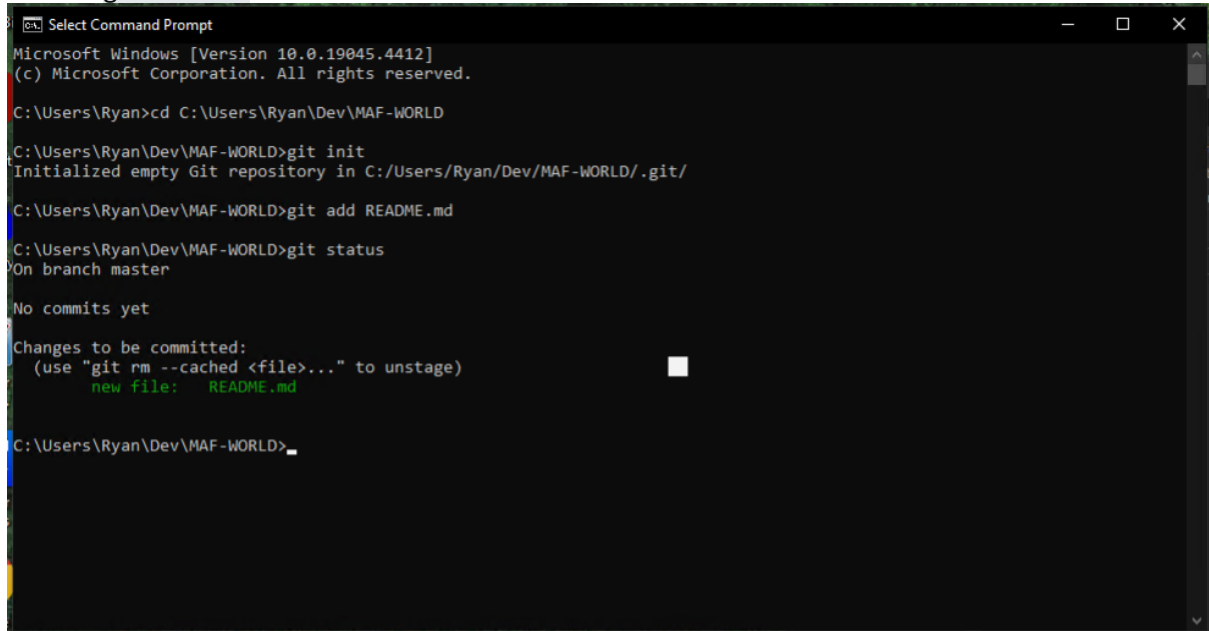
Last login: Tue Jun  4 09:55:50 on ttys000
ryanfield@Ryans-MacBook-Pro MAF-WORLD % touch README.md
ryanfield@Ryans-MacBook-Pro MAF-WORLD %
```

## Tell git to track the README.md file

In the command prompt / terminal type the following command:

```
git add README.md
```

```
git status
```



```
Select Command Prompt
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Ryan>cd C:\Users\Ryan\Dev\MAF-WORLD
C:\Users\Ryan\Dev\MAF-WORLD>git init
Initialized empty Git repository in C:/Users/Ryan/Dev/MAF-WORLD/.git/
C:\Users\Ryan\Dev\MAF-WORLD>git add README.md
C:\Users\Ryan\Dev\MAF-WORLD>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md

C:\Users\Ryan\Dev\MAF-WORLD>
```

You should see README.md under Changes to be committed

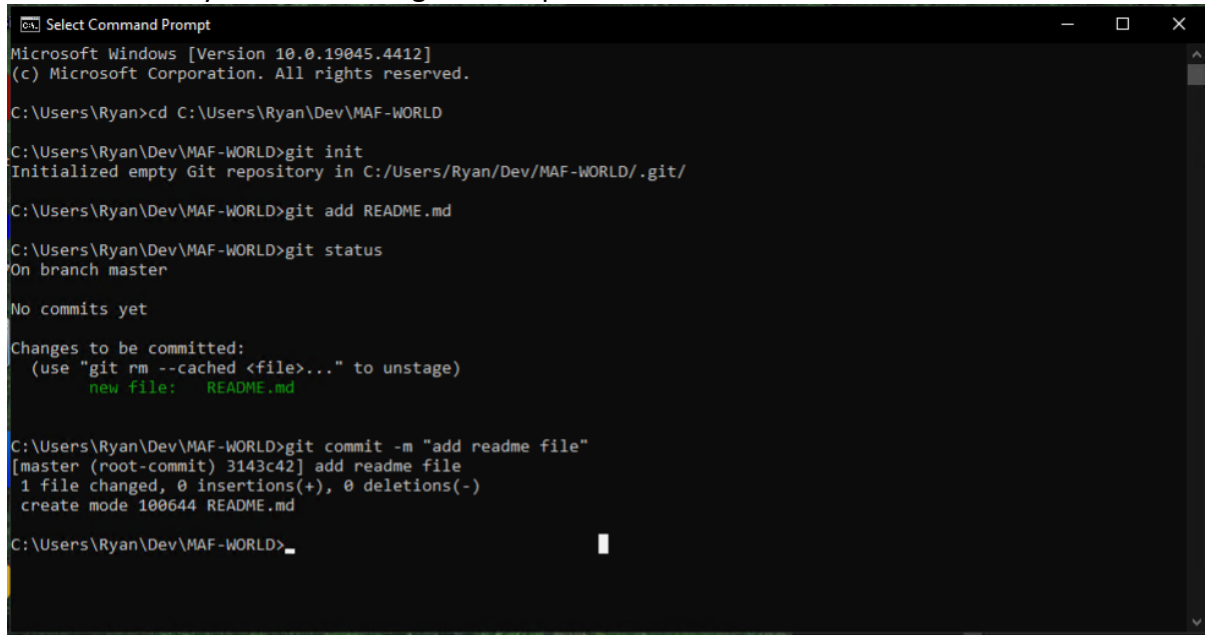
## Commit the file:

In the terminal type the following command:

```
git commit -m "add readme file"
```

and press enter.

You can add any commit message in the quotes.



```
Microsoft Windows [Version 10.0.19045.4412]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Ryan>cd C:\Users\Ryan\Dev\MAF-WORLD

C:\Users\Ryan\Dev\MAF-WORLD>git init
Initialized empty Git repository in C:/Users/Ryan/Dev/MAF-WORLD/.git/

C:\Users\Ryan\Dev\MAF-WORLD>git add README.md

C:\Users\Ryan\Dev\MAF-WORLD>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
    new file:   README.md

C:\Users\Ryan\Dev\MAF-WORLD>git commit -m "add readme file"
[master (root-commit) 3143c42] add readme file
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md

C:\Users\Ryan\Dev\MAF-WORLD>
```

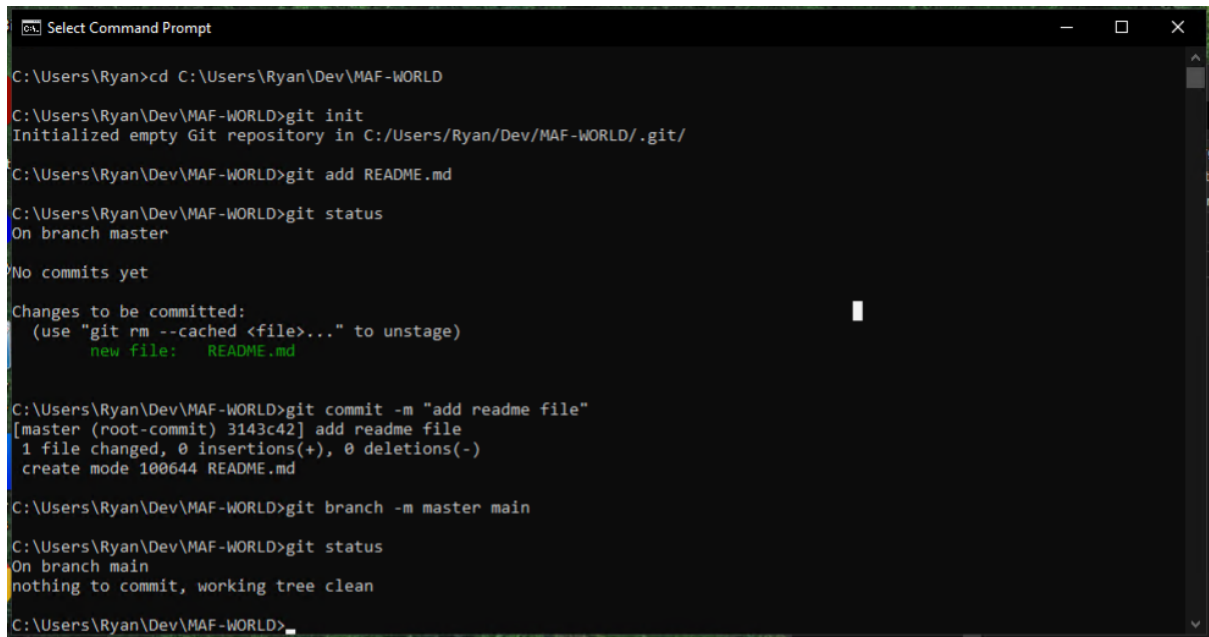
## Rename the master branch to main

GitHub changed the name of the primary branch from master to main, however git still uses the name master, therefore it is recommended to change the primary branch to main:

In the terminal / command prompt type:

```
git branch -m master main
git status
```

and press enter.



```

C:\Users\Ryan>cd C:\Users\Ryan\Dev\MAF-WORLD

C:\Users\Ryan\Dev\MAF-WORLD>git init
Initialized empty Git repository in C:/Users/Ryan/Dev/MAF-WORLD/.git/

C:\Users\Ryan\Dev\MAF-WORLD>git add README.md

C:\Users\Ryan\Dev\MAF-WORLD>git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md

C:\Users\Ryan\Dev\MAF-WORLD>git commit -m "add readme file"
[master (root-commit) 3143c42] add readme file
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 README.md

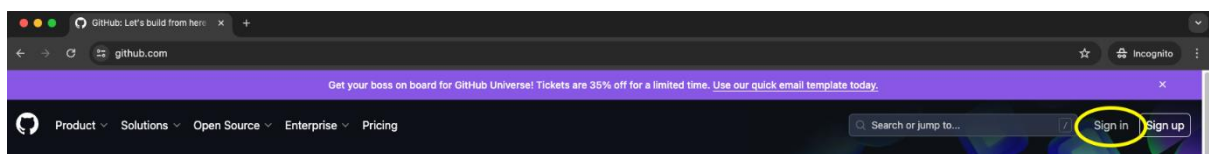
C:\Users\Ryan\Dev\MAF-WORLD>git branch -m master main

C:\Users\Ryan\Dev\MAF-WORLD>git status
On branch main
nothing to commit, working tree clean

C:\Users\Ryan\Dev\MAF-WORLD>
```

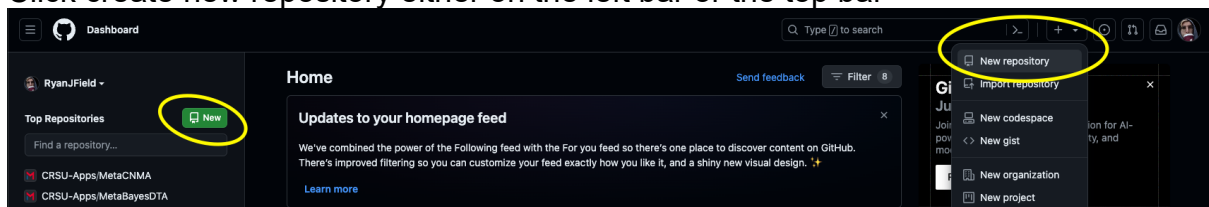
You should see `On branch main nothing to commit`

## Setup a remote repository (on GitHub)



Login at <https://www.github.com/>

Click create new repository either on the left bar or the top bar



# Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository](#).

Required fields are marked with an asterisk (\*).

## Repository template

No template ▾

Start your repository with a template repository's contents.

Owner \*

 RyanJField ▾

Repository name \*

MAF-WORLD 

 MAF-WORLD is available.

Great repository names are short and memorable. Need inspiration? How about [curly-doodle](#) ?

Description (optional)



Public

Anyone on the internet can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.

Initialize this repository with:



Add a README file

This is where you can write a long description for your project. [Learn more about READMEs](#).

Add .gitignore

.gitignore template: None ▾

Choose which files not to track from a list of templates. [Learn more about ignoring files](#).

Choose a license

License: None ▾

A license tells others what they can and can't do with your code. [Learn more about licenses](#).



You are creating a public repository in your personal account.

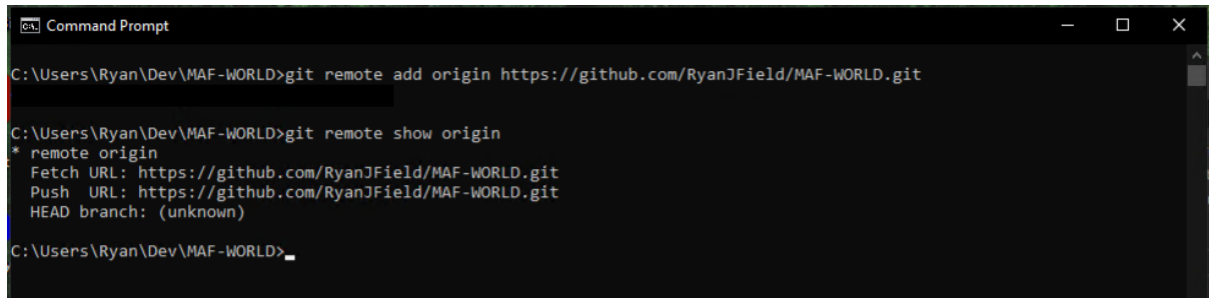
Create repository

Enter a name for the repository, E.G, the same as the folder name earlier in the tutorial. Then click create repository  
Link the remote repository to the local git repository.

In the terminal / command prompt type:

```
git remote add origin https://github.com/<github-username>/<repository-name>.git  
git remote show origin
```

and press enter.

A screenshot of a Windows Command Prompt window titled "Command Prompt". The window shows the following commands and output:  
C:\Users\Ryan\Dev\MAF-WORLD>git remote add origin https://github.com/RyanJField/MAF-WORLD.git  
C:\Users\Ryan\Dev\MAF-WORLD>git remote show origin  
\* remote origin  
Fetch URL: https://github.com/RyanJField/MAF-WORLD.git  
Push URL: https://github.com/RyanJField/MAF-WORLD.git  
HEAD branch: (unknown)  
C:\Users\Ryan\Dev\MAF-WORLD>  
The window has a standard Windows title bar with minimize, maximize, and close buttons.

Replacing `<github-username>` with your username and `<repository-name>` with the repository name you choose when you created the repository e.g.  
`https://github.com/RyanJField/MAF-WORLD.git`

## Setup git config name and email address

In the terminal / command prompt type:

```
git config --global user.email <github-username>@users.noreply.github.com  
git config --global user.name "Your Name"
```

and press enter.

For the email address replace `<github-username>` with your GitHub username e.g.  
`RyanJField@users.noreply.github.com` and `Your Name` with your name.



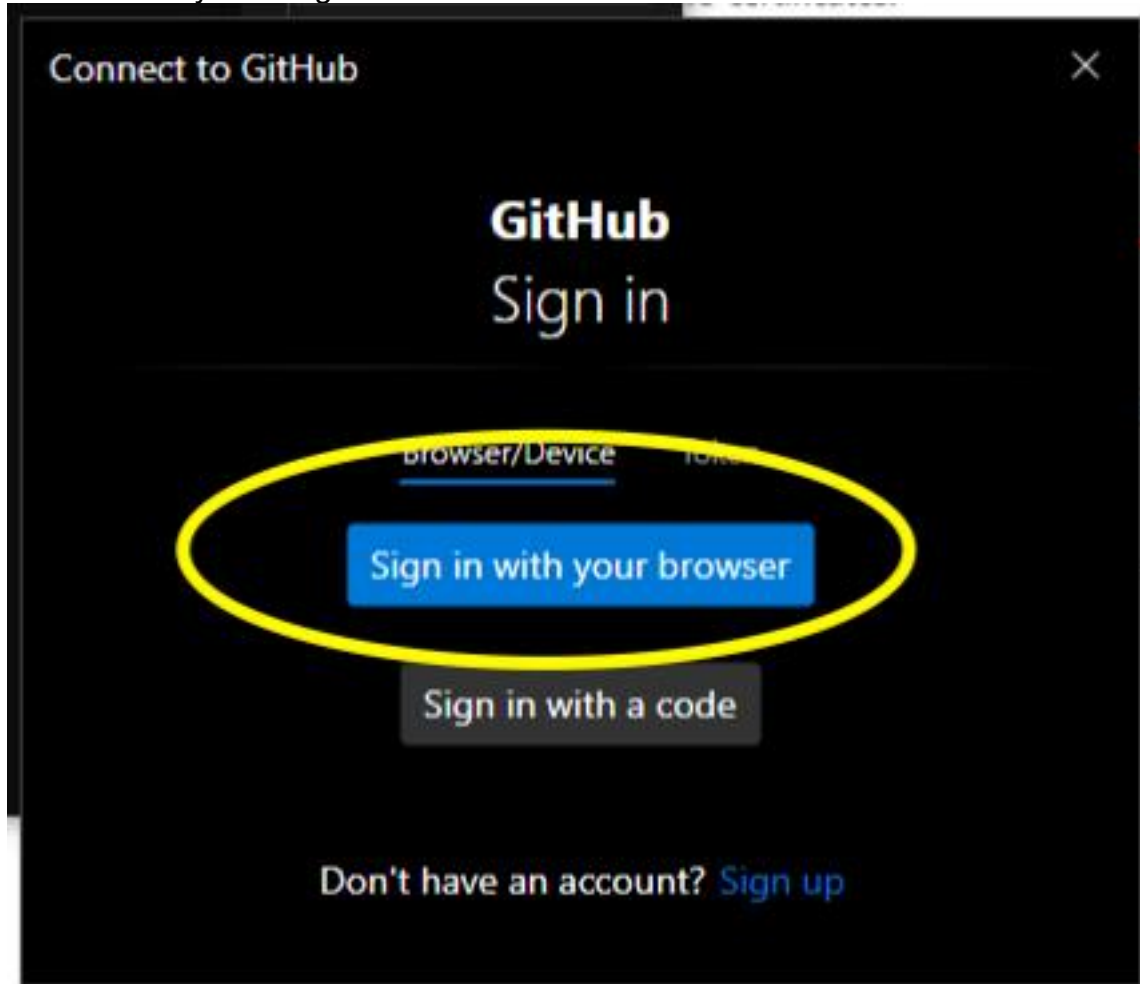
## Push your local repository to the remote repository

In the terminal / command prompt type:

```
git push --set-upstream origin main
```

and press enter.

it should ask you to login to GitHub:



Click Sign in with your browser

Your code should now be on GitHub!

## Try adding your own files

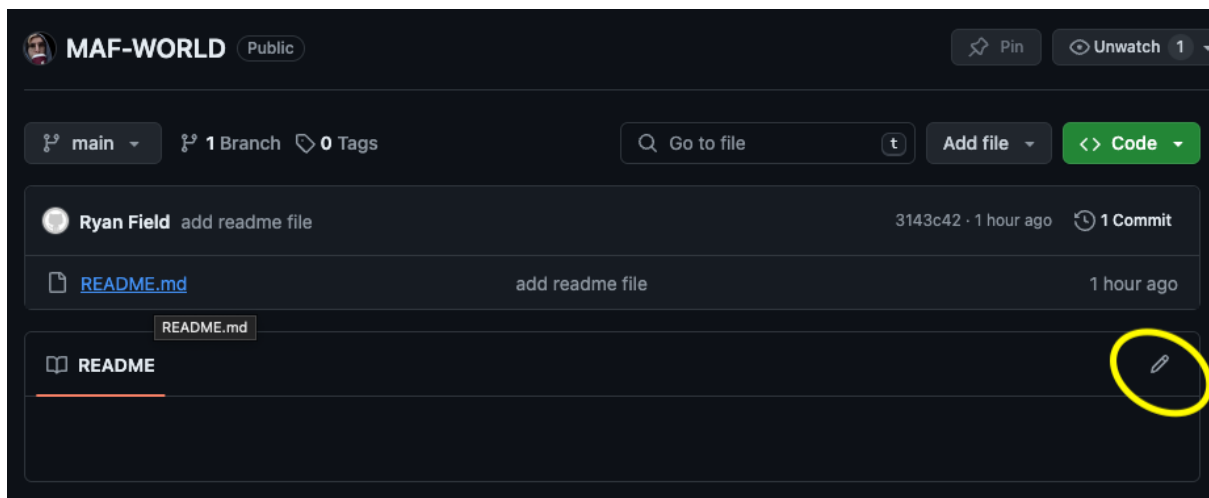
Create some files and stage them with `git add`

Hint you can use `git add *` to stage (add) all files

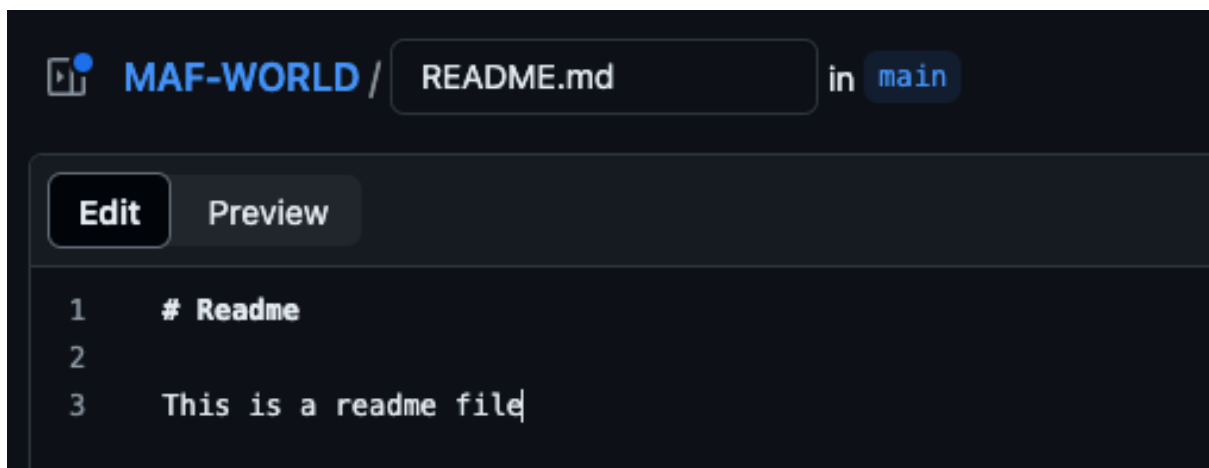
Then commit your changes using `git commit -m "commit message"`

Then push your changes using `git push`

## Edit the README.md file on GitHub

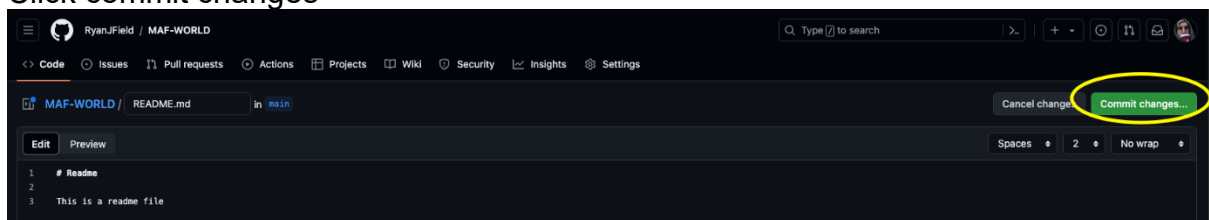


On the GitHub repository page click the edit button on the readme.



Add some text to the file it's a markdown file so you can add a title using #  
You can preview the changes using the Preview

## Click commit changes



**Commit changes** [X]

**Commit message**

Update README.md

**Extended description**

Add an optional extended description..

☒ Commit directly to the main branch

☐ Create a new branch for this commit and start a pull request

[Learn more about pull requests](#)

Cancel Commit changes

Change the commit message (if required) and click commit changes.

### Pull the changes locally

In the terminal / command prompt type:

```
git pull
```

and press enter.

Your changes should now be on your local machine.