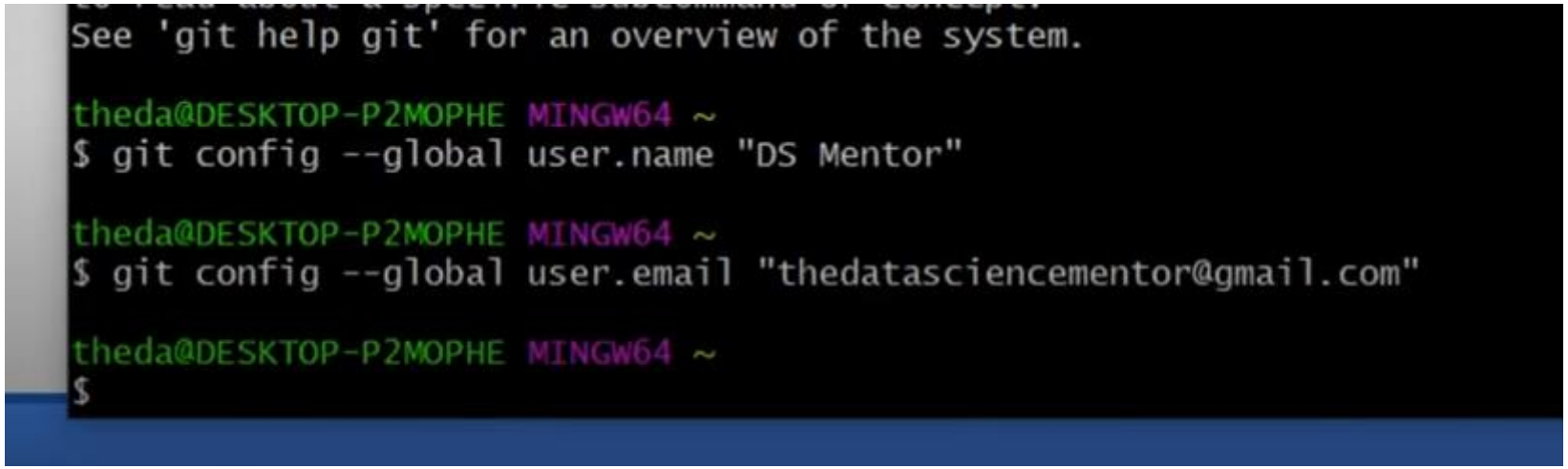
Configuring Git/Github

Installation

- You should already have completed the steps to install Git using chocolatey.
- You should also already have an online GitHub account.

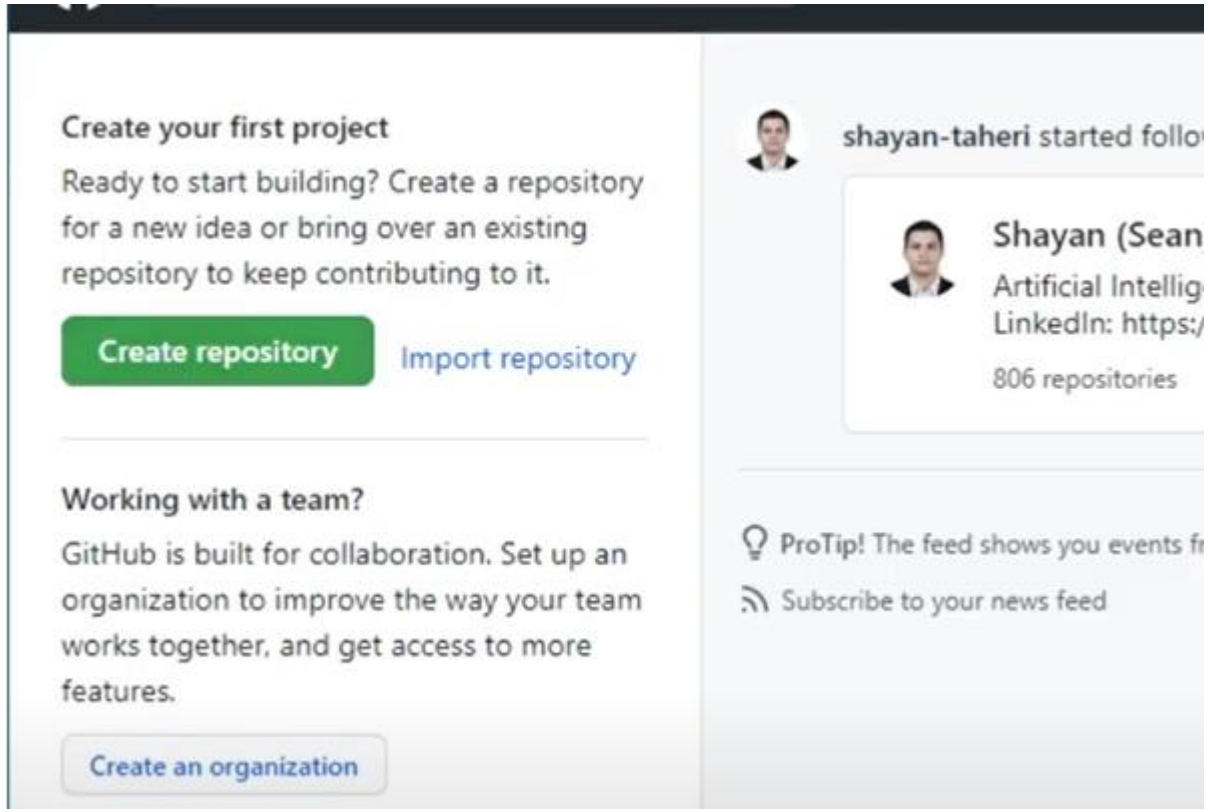
Using Git Bash to Configure your Profile

- On your machine, open the git bash app which will open a terminal
- You will need to configure your name and email. Use global to apply to all project folders:



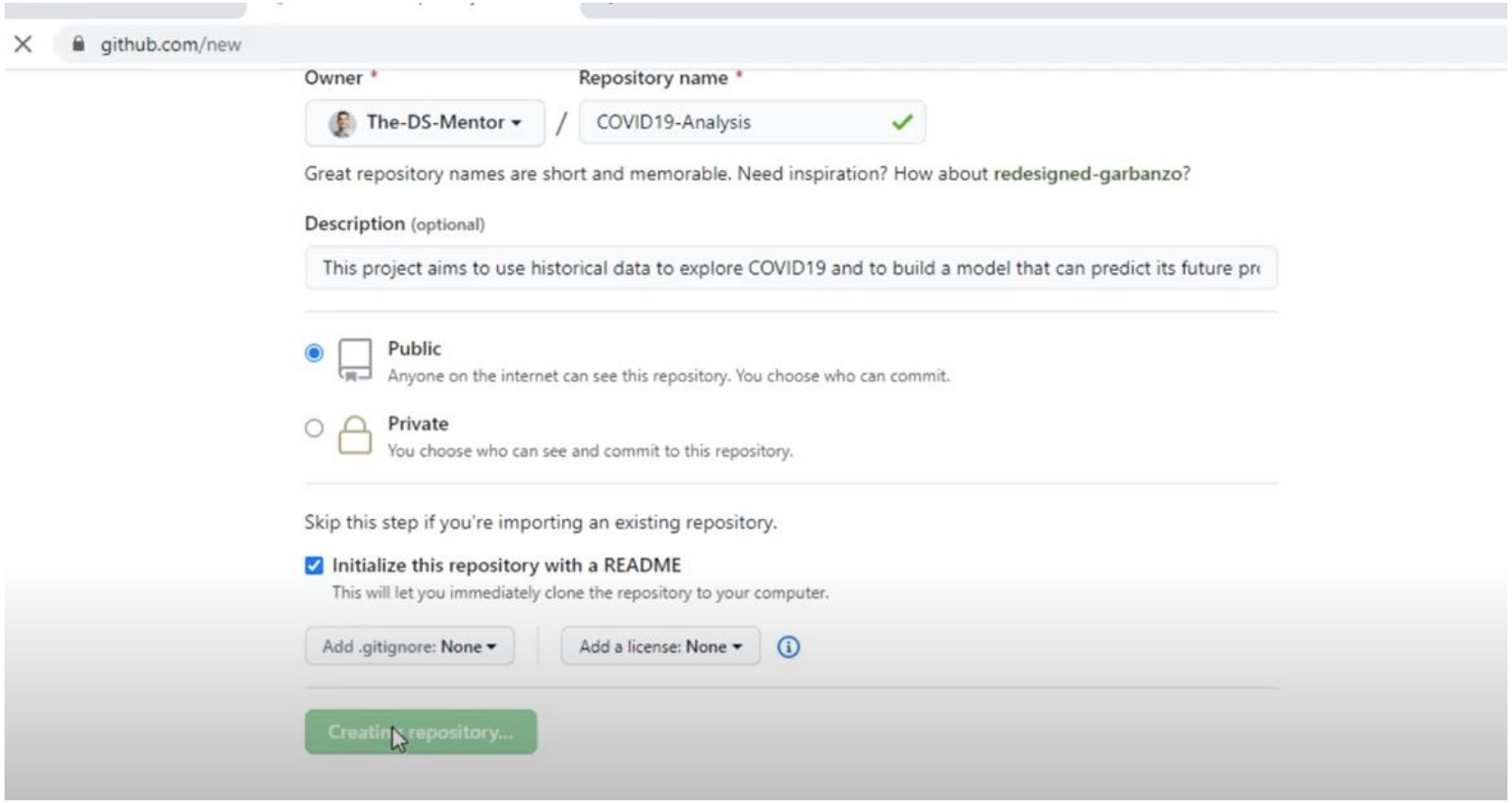
GitHub

- Open GitHub and create a new repository:

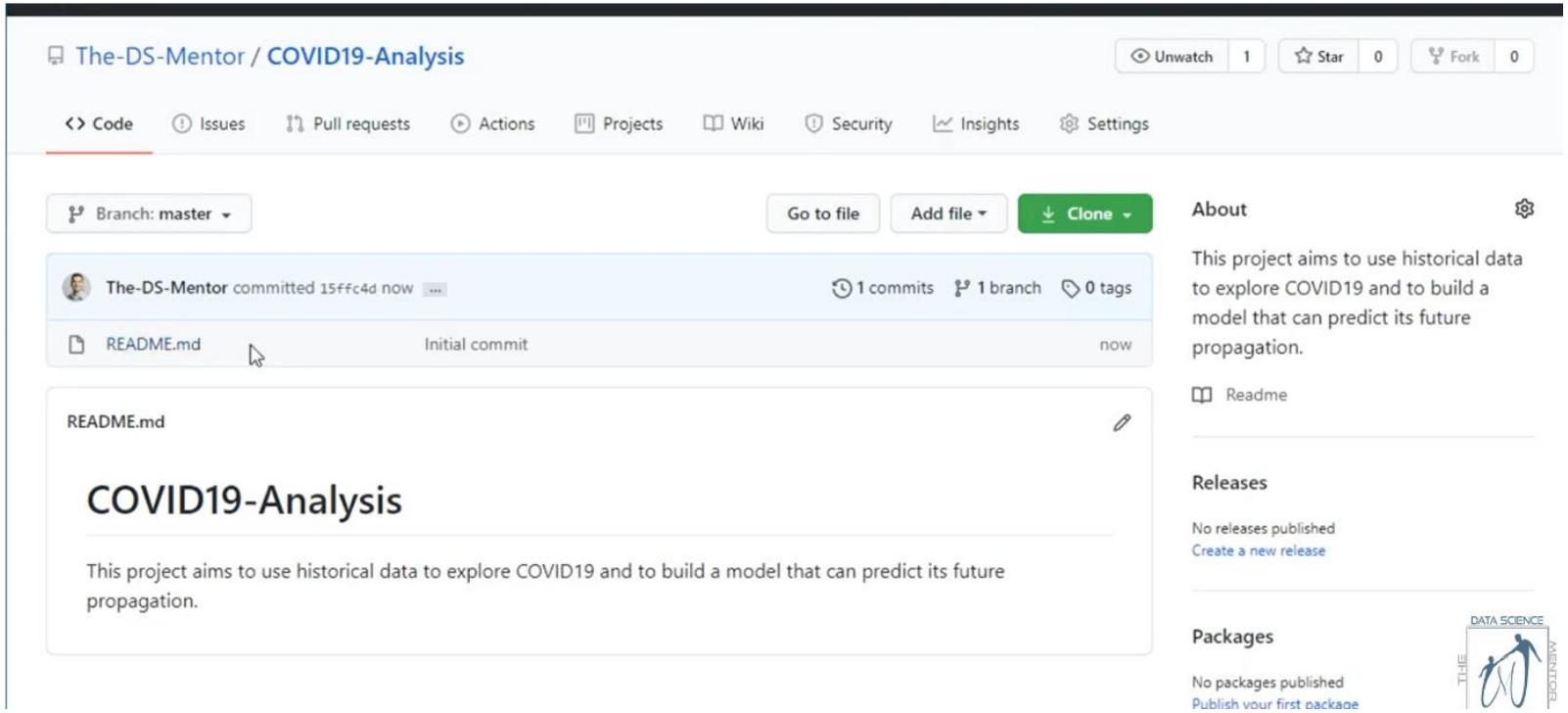


Complete the create a new repository form

1. Add a name
2. Add a brief description,
3. Leave as public and
4. Tick initialise with README
5. Click on Create



Created repository



Next we need to Clone with SSH

- Use SSH to bypass request for credentials (if using HTTP).
- We will need to generate SSH key before we can do this.

Generating an SSH Key

- Follow the instructions found here to do this:

- https://docs.github.com/en/authentication/connecting-to-github-with-ssh/generating-a-new-ssh-key-and-adding-it-to-the-ssh-agent

- You will be instructed to return to Gitbash on your terminal to complete the instructions. The instructions are summarised on the next slide.

Generating an SSH Key

1. Open Git Bash.
2. Paste the text below, substituting in your GitHub email address.

```
$ ssh-keygen -t ed25519 -C "your_email@example.com"
```

> **Note:** If you are using a legacy system that doesn't support the Ed25519 algorithm, use:
>
> ```
> $ ssh-keygen -t rsa -b 4096 -C "your_email@example.com"
> ```

This creates a new SSH key, using the provided email as a label.

```
> Generating public/private ALGORITHM key pair.
```

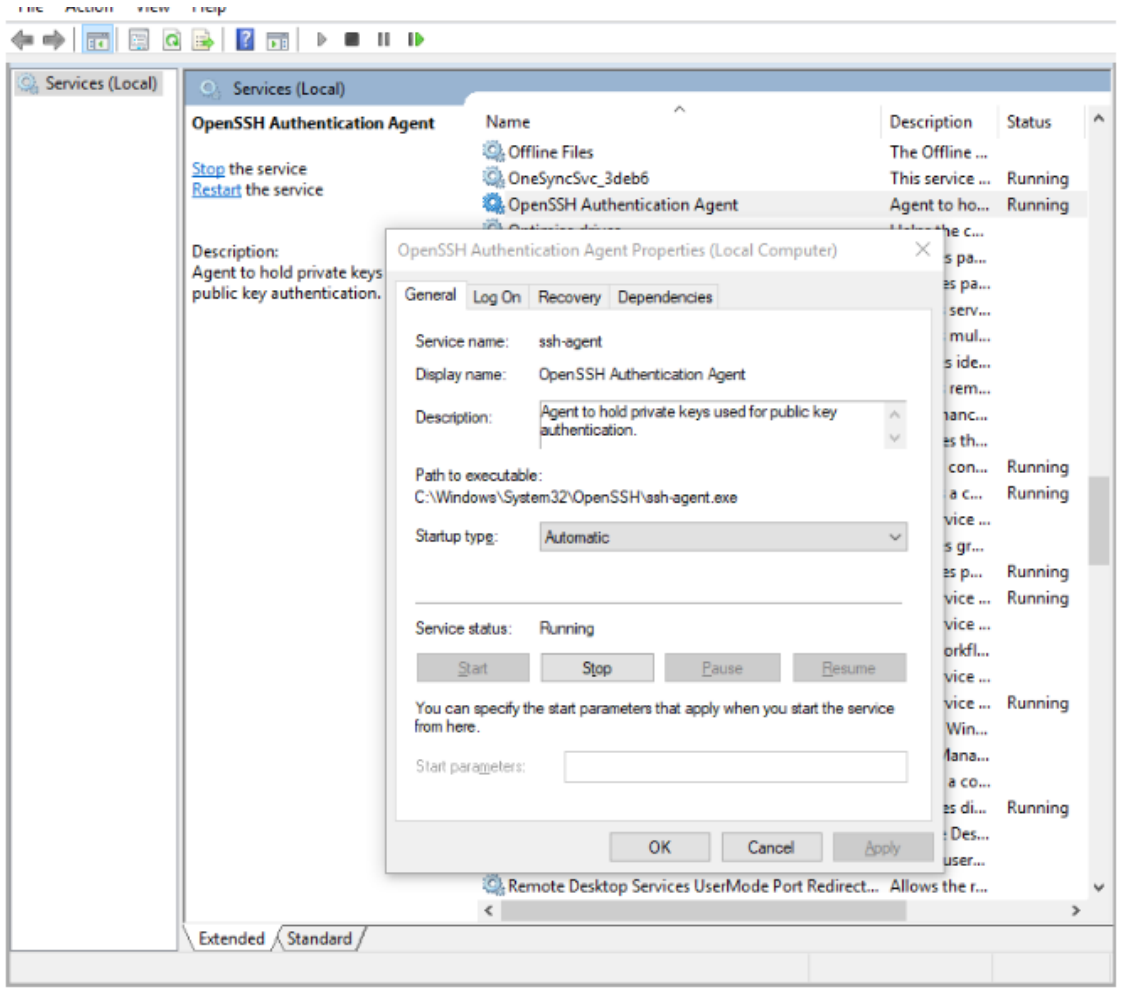
3. At the prompt, type a secure passphrase. For more information, see "Working with SSH key passphrases."

```
> Enter passphrase (empty for no passphrase): [Type a passphrase]
> Enter same passphrase again: [Type passphrase again]
```

Leave empty (press enter twice)

Add SSH key to agent

- Go to Start search for Services app
- Scroll down to Open SHH
- Click on startup-type-change to Automatic
- Click on Start service



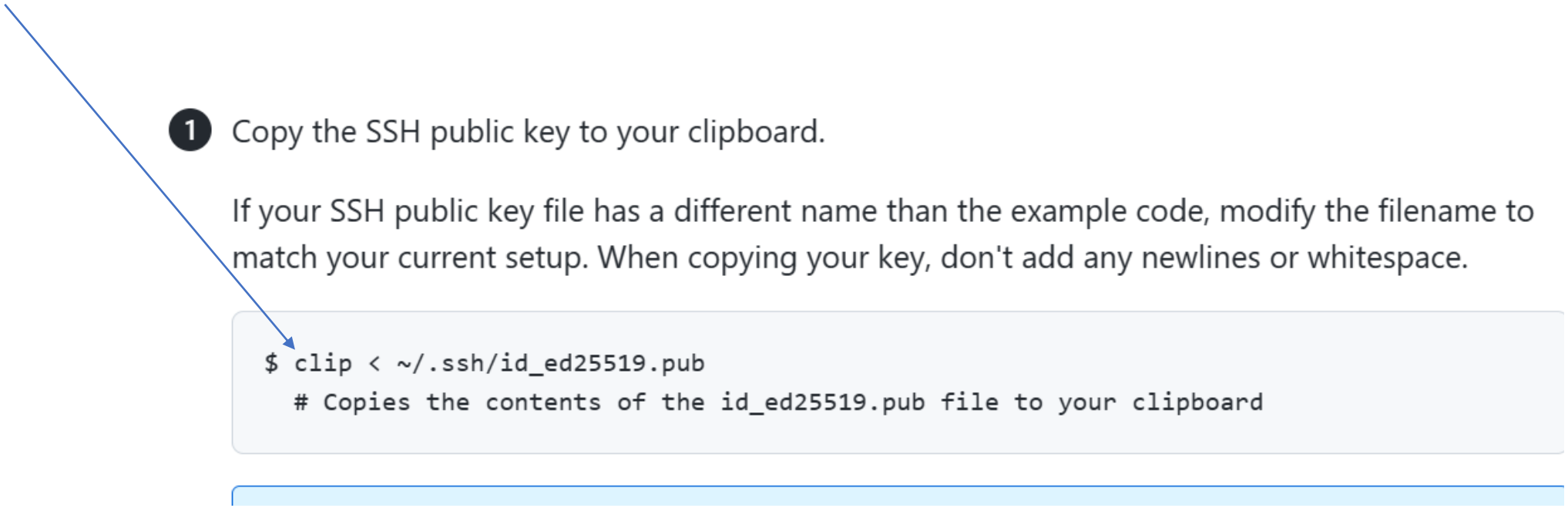
Add SSH key to agent

2. Add your SSH private key to the ssh-agent. If you created your key with a different name, or if you are adding an existing key that has a different name, replace *id_ed25519* in the command with the name of your private key file.

```
$ ssh-add ~/.ssh/id_ed25519
```

Add SSH key to your GitHub Account

- Detailed instructions here:
- On Gitbash copy and paste the code show here



1. Copy the SSH public key to your clipboard.

   If your SSH public key file has a different name than the example code, modify the filename to match your current setup. When copying your key, don't add any newlines or whitespace.

```
$ clip < ~/.ssh/id_ed25519.pub
  # Copies the contents of the id_ed25519.pub file to your clipboard
```

Add SSH key to your GitHub Account

Following instructions from Step 2 onwards to complete final link from your machine to your GitHub account.

- Add SSH key to your GitHub Account: Adding a new SSH key to your GitHub account - GitHub Docs

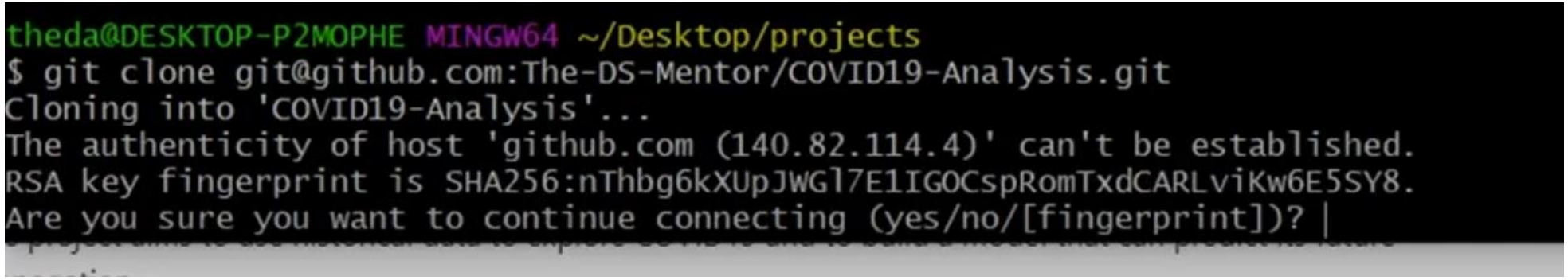
Clone a Repository

Stay on GitHub and navigate back to the newly created repository.

1. Your profile picture
2. Select Your repositories
3. Choose the previously created repo
4. Click on code, and use the SSH option

Clone a Repository

1. Switch back to your laptop.
2. **Create** a new folder for the repository
3. **Right click** on the created folder and choose *Gitbash here* to open the terminal
4. Type in to Gitbash: **git clone then paste the copied SSH link from GitHub on to the same line.** See below,
5. Then confirm that you want to continue with **Yes**



VS Code

- Navigate to the cloned folder and open in Vscode.
- On the bottom left hand corner you should see the following.
- If you hover your mouse over the branch icon you will see project (git) in brackets.