

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.

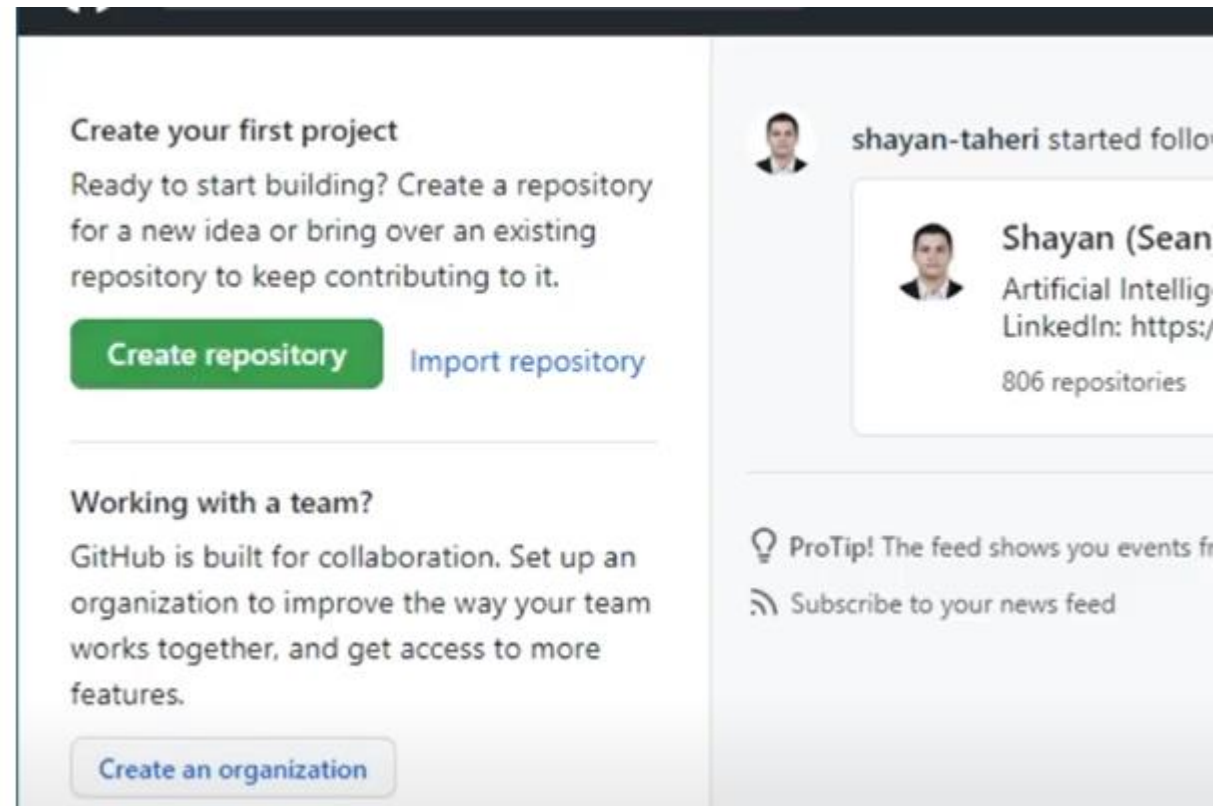
Using Git Bash to Configure your Profile

- 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:

```
See 'git help git' for an overview of the system.  
  
theda@DESKTOP-P2MOPHE MINGW64 ~  
$ git config --global user.name "DS Mentor"  
  
theda@DESKTOP-P2MOPHE MINGW64 ~  
$ git config --global user.email "thedatasciencementor@gmail.com"  
  
theda@DESKTOP-P2MOPHE MINGW64 ~  
$
```

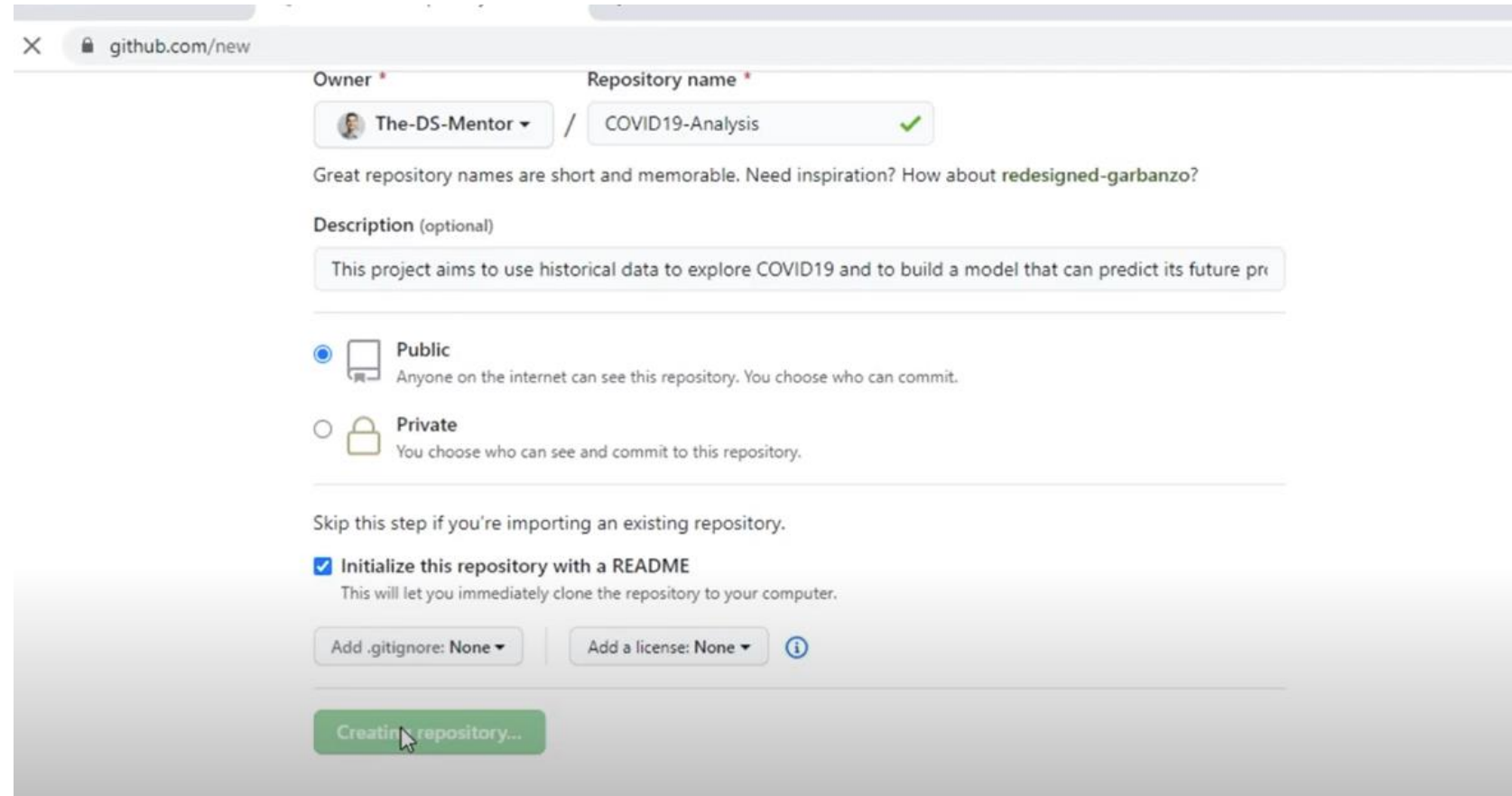
GitHub

- 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



The screenshot shows the GitHub 'Create a new repository' form. The browser address bar displays 'github.com/new'. The form fields are as follows:

- Owner:** A dropdown menu showing 'The-DS-Mentor' with a profile icon.
- Repository name:** A text input field containing 'COVID19-Analysis', which is marked with a green checkmark.
- Description (optional):** A text area containing the text: 'This project aims to use historical data to explore COVID19 and to build a model that can predict its future pri'.
- Visibility:** Two radio buttons are present. The 'Public' option is selected, with the description 'Anyone on the internet can see this repository. You choose who can commit.' The 'Private' option is unselected, with the description 'You choose who can see and commit to this repository.'
- Initialize with README:** A checkbox is checked, with the text 'Initialize this repository with a README' and a subtext 'This will let you immediately clone the repository to your computer.'
- Additional options:** Two dropdown menus are shown: 'Add .gitignore: None' and 'Add a license: None', followed by an information icon.
- Create button:** A green button at the bottom labeled 'Creating repository...' with a mouse cursor hovering over it.

Created repository

The screenshot displays a GitHub repository page for 'The-DS-Mentor / COVID19-Analysis'. At the top, the repository name is shown with navigation links for 'Code', 'Issues', 'Pull requests', 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. On the right, there are buttons for 'Unwatch', 'Star' (0), and 'Fork' (0). Below the navigation bar, a 'Branch: master' dropdown is visible, along with 'Go to file', 'Add file', and a green 'Clone' button. A commit summary shows 'The-DS-Mentor committed 15ffc4d now' with '1 commits', '1 branch', and '0 tags'. A file list shows 'README.md' as an 'Initial commit' made 'now'. The main content area displays the 'README.md' file, which has the title 'COVID19-Analysis' and the text: 'This project aims to use historical data to explore COVID19 and to build a model that can predict its future propagation.' The right sidebar contains sections for 'About' (describing the project's goal), 'Releases' (stating 'No releases published' with a link to 'Create a new release'), and 'Packages' (stating 'No packages published' with a link to 'Publish your first package'). A logo for 'THE DATA SCIENCE MENTOR' is located in the bottom right corner.

The-DS-Mentor / COVID19-Analysis

Unwatch 1 Star 0 Fork 0

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

Branch: master

Go to file Add file Clone

The-DS-Mentor committed 15ffc4d now 1 commits 1 branch 0 tags

README.md Initial commit now

README.md

COVID19-Analysis

This project aims to use historical data to explore COVID19 and to build a model that can predict its future propagation.

About

This project aims to use historical data to explore COVID19 and to build a model that can predict its future propagation.

Releases

No releases published
[Create a new release](#)

Packages

No packages published
[Publish your first package](#)

THE DATA SCIENCE MENTOR

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.
```

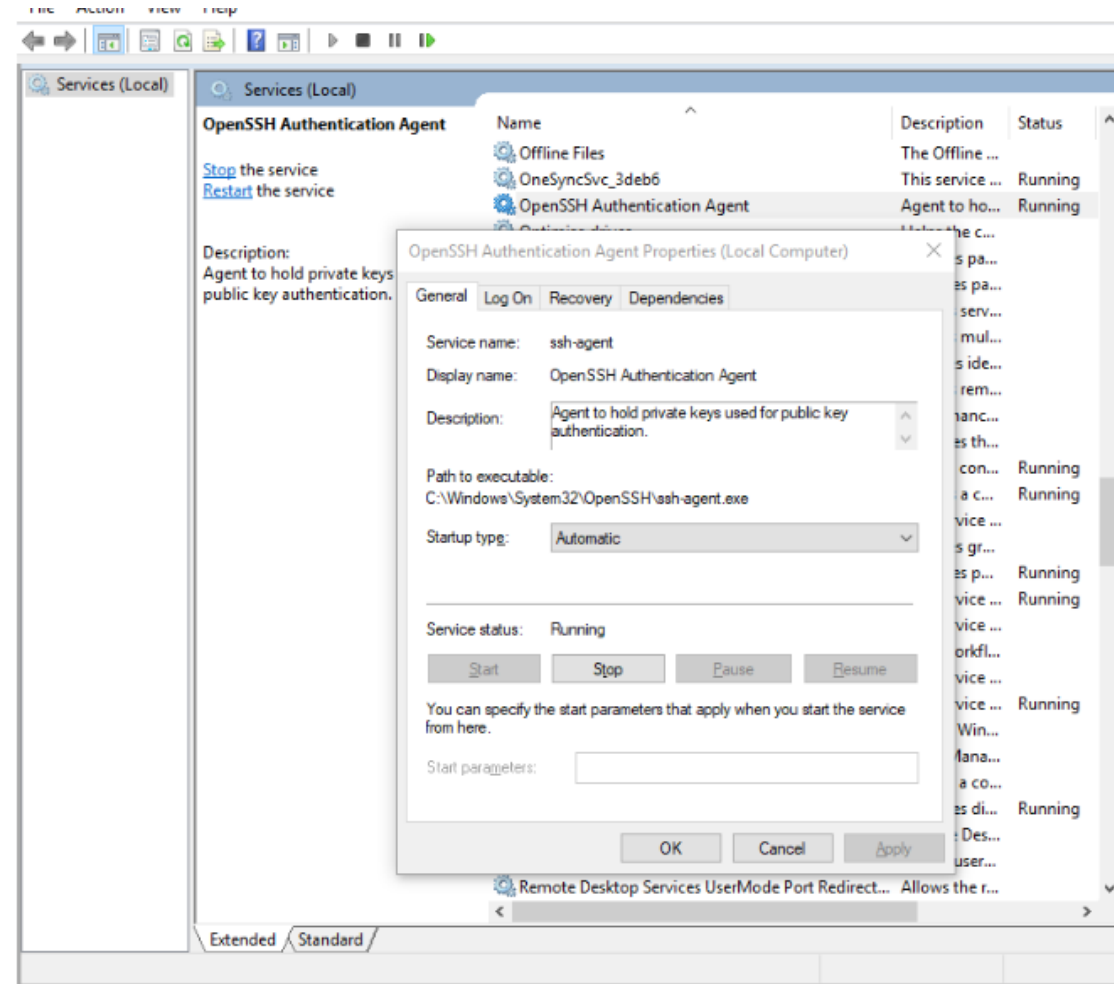
- 3 At the prompt, type a secure passphrase. For more information, see ["Working with SSH key passphrases."](#)

```
> 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 SSH
- 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.



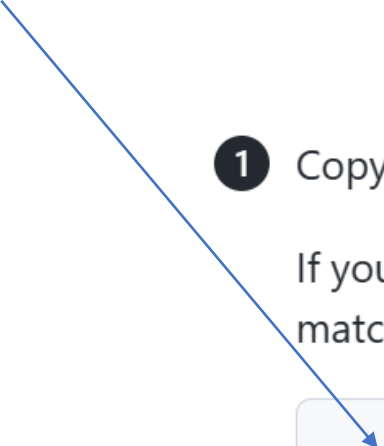
```
$ ssh-add ~/.ssh/id_ed25519
```

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**

```
theda@DESKTOP-P2MOPHE MINGW64 ~/Desktop/projects
$ git clone git@github.com:The-DS-Mentor/COVID19-Analysis.git
Cloning into 'COVID19-Analysis'...
The authenticity of host 'github.com (140.82.114.4)' can't be established.
RSA key fingerprint is SHA256:nThbg6kXUpJWGl7E1IGOCspRomTxdCARLviKw6E5SY8.
Are you sure you want to continue connecting (yes/no/[fingerprint])? |
```

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.

