

# How to run Jupyter (Data Science) on the Coding Institute Server

1. ssh into the server
2. make a `jupyter_data` directory in your home directory

```
$ cd ~  
$ mkdir jupyter_data
```

3. give the `jupyter_data` directory full permissions (This allows the Jupyter docker container to read and write in that directory)

```
$chmod 777 jupyter_data/
```

4. Pull the "jupyter datascience image"

```
$ docker pull jupyter/datascience-notebook
```

5. Run the "jupyter/datascience-notebook" sharing to the correct port and adding your users volume

```
docker run -d -p <YOUR_PORT>:8888 \  
-v /home/<YOUR USERNAME>/jupyter_data:/home/jovyan \  
--name jupyter_<YOUR USERNAME> \  
-u $(id -u <YOUR USERNAME>):$(id -g <YOUR USERNAME>) \  
jupyter/datascience-notebook:latest
```

Example for user "jeaimehp"

```
jeaimehp@jp-codinginstitute: ~  
jeaimehp@jp-codinginstitute:~$ docker run -d -p 8005:8888 \  
> -v /home/jeaimehp/jupyter_data:/home/jovyan \  
> --name jupyter_jeaimehp \  
> -u $(id -u jeaimehp):$(id -g jeaimehp) \  
> jupyter/datascience-notebook:latest  
b0bb77c892d5df868aef06c334ae746e6fc945872ef42a2341d59c9ca35ed2ca  
jeaimehp@jp-codinginstitute:~$
```

6. Check to make sure your docker instance started using `docker ps`

```
jeaimehp@jp-codinginstitute: ~  
jeaimehp@jp-codinginstitute:~$ docker ps  
CONTAINER ID   IMAGE                                COMMAND                                CREATED  
STATUS        PORTS                                NAMES  
b0bb77c892d5   jupyter/datascience-notebook:latest "tini -g -- start-no.."              About a minute ago  
Up About a minute (healthy)  0.0.0.0:8005->8888/tcp, [::]:8005->8888/tcp  jupyter_jeaimehp  
af739f5bfd73   nginx                                "/docker-entrypoint..."           46 hours ago  
Up 2 hours      0.0.0.0:8080->80/tcp, [::]:8080->80/tcp      test-webserver  
jeaimehp@jp-codinginstitute:~$
```

7. Get the token from `docker logs jupyter_<YOUR_USERNAME>` for your jupyter instance. I will be next to the line with " `http://127.0.0.1:8888/lab?token=` "

**Example:**

```
jeaimehp@jp-codinginstitute: ~
[I 2025-06-18 17:57:11.058 LabApp] JupyterLab extension loaded from /opt/conda/lib/python3.11/site-packages/jupyterlab
[I 2025-06-18 17:57:11.058 LabApp] JupyterLab application directory is /opt/conda/share/jupyter/lab
[I 2025-06-18 17:57:11.058 LabApp] Extension Manager is 'pypi'.
[I 2025-06-18 17:57:11.061 ServerApp] jupyterlab | extension was successfully loaded.
[I 2025-06-18 17:57:11.065 ServerApp] jupyterlab_git | extension was successfully loaded.
[I 2025-06-18 17:57:11.068 ServerApp] nbclassic | extension was successfully loaded.
[I 2025-06-18 17:57:11.123 ServerApp] nbdime | extension was successfully loaded.
[I 2025-06-18 17:57:11.127 ServerApp] notebook | extension was successfully loaded.
[I 2025-06-18 17:57:11.127 ServerApp] Serving notebooks from local directory: /home/jovyan
[I 2025-06-18 17:57:11.127 ServerApp] Jupyter Server 2.8.0 is running at:
[I 2025-06-18 17:57:11.127 ServerApp] http://03fe8120f48a:8888/lab?token=62cf9afc4ceb093e9633182d0b34837567376e14178be4a2
[I 2025-06-18 17:57:11.127 ServerApp] http://127.0.0.1:8888/lab?token=62cf9afc4ceb093e9633182d0b34837567376e14178be4a2
[I 2025-06-18 17:57:11.127 ServerApp] Use Control-C to stop this server and shut down all kernels (twice to skip confirmation).
[C 2025-06-18 17:57:11.130 ServerApp]

To access the server, open this file in a browser:
file:///home/jovyan/.local/share/jupyter/runtime/jpserver-7-open.html
Or copy and paste one of these URLs:
http://03fe8120f48a:8888/lab?token=62cf9afc4ceb093e9633182d0b34837567376e14178be4a2
http://127.0.0.1:8888/lab?token=62cf9afc4ceb093e9633182d0b34837567376e14178be4a2
[I 2025-06-18 17:57:12.261 ServerApp] Skipped non-installed server(s): bash-language-server, dock
erfile-language-server-nodejs, javascript-typescript-langserver, jedi-language-server, julia-lang
uage-server, pyright, python-language-server, python-lsp-server, r-languageserver, sql-language-s
erver, texlab, typescript-language-server, unified-language-server, vscode-css-languageserver-bin
, vscode-html-languageserver-bin, vscode-json-languageserver-bin, yaml-language-server
jeaimehp@jp-codinginstitute: ~$
```

8. In a web browser go to the <SERVER\_IP>:<YOUR\_PORT>
9. In the "Setup a Password" section, paste in *your token* and then create a password and click "Login in and set new password"

Example:



Password or token:

### Token authentication is enabled

If no password has been configured, you need to open the server with its login token in the URL, or paste it above. This requirement will be lifted if you [enable a password](#).

The command:

```
jupyter server list
```

will show you the URLs of running servers with their tokens, which you can copy and paste into your browser. For example:

```
Currently running servers:  
http://localhost:8888/?token=c8de56fa... :: /Users/you/notebooks
```

or you can paste just the token value into the password field on this page.

See [the documentation on how to enable a password](#) in place of token authentication, if you would like to avoid dealing with random tokens.

Cookies are required for authenticated access to the Jupyter server.

### Setup a Password

You can also setup a password by entering your token and a new password on the fields below:

Token

New Password

10. Any notebooks or saved files will be in your `/home/<YOUR USERNAME>/jupyter_data` directory

```
jeaimehp@jp-codinginstitute: ~/jupyter_data
jeaimehp@jp-codinginstitute:~$ pwd
/home/jeaimehp
jeaimehp@jp-codinginstitute:~$ ls
ATX_Traffic_Notebook-matplot.ipynb  jupyter_data  sgx3_flask_demo
atxtraffic.csv                      sgx3-project  snap
jeaimehp@jp-codinginstitute:~$ cd jupyter_data/
jeaimehp@jp-codinginstitute:~/jupyter_data$ ls
Untitled.ipynb
jeaimehp@jp-codinginstitute:~/jupyter_data$
```