Tutorial Slurm

#2 Data & Cluster

Example with Genouest

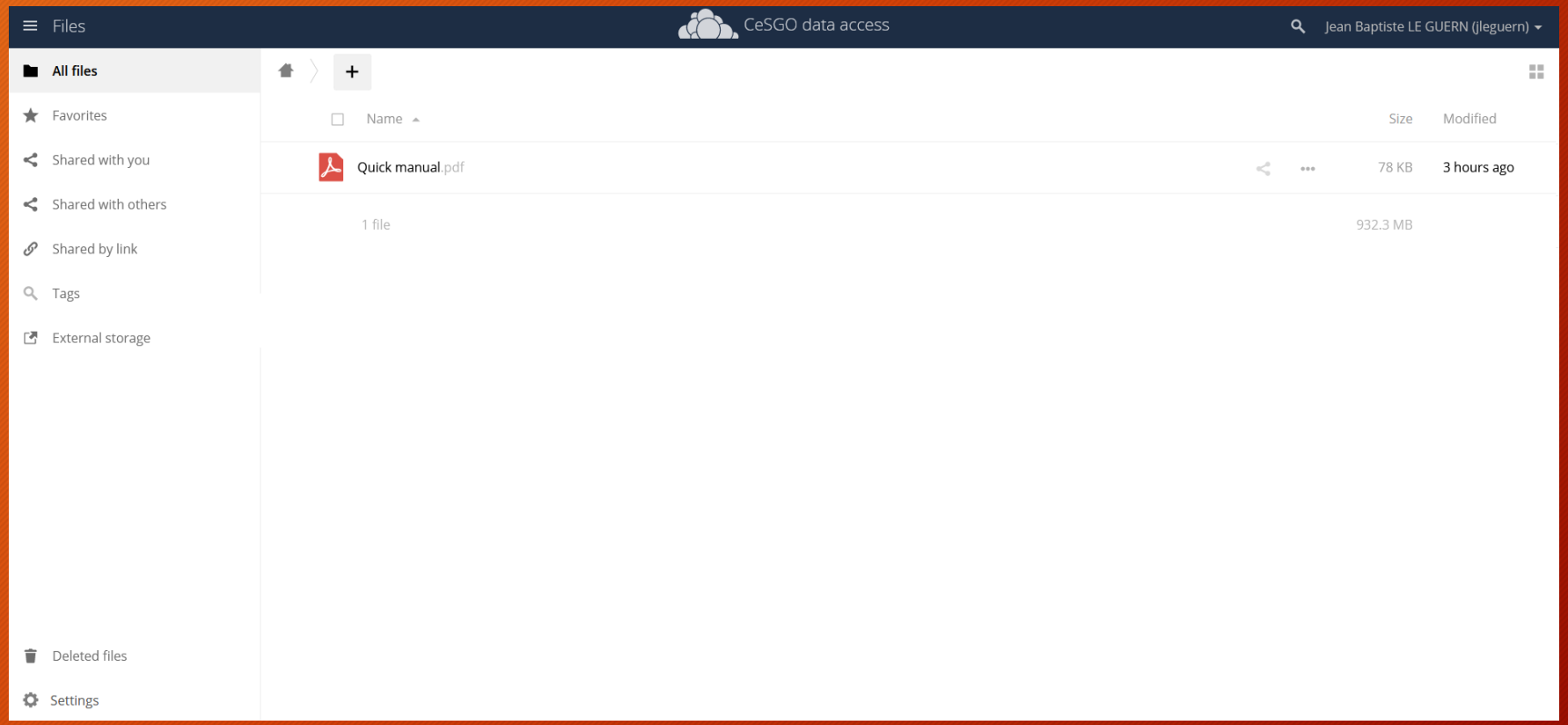
Slurm - Upload data

- This tutorial requires that you have an account on GenOuest and a SSH Access.

- If not, follow the previous tutorial
  « Tutorial Slurm – #1 SSH Access »

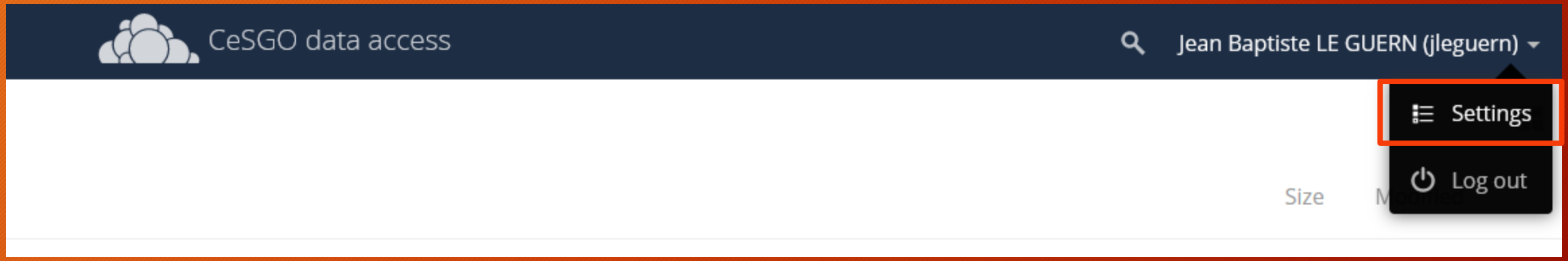
Slurm - Upload data

- Go on https://data-access.cesgo.org
- Use your login from your GenOuest account
- And you should see something like this :



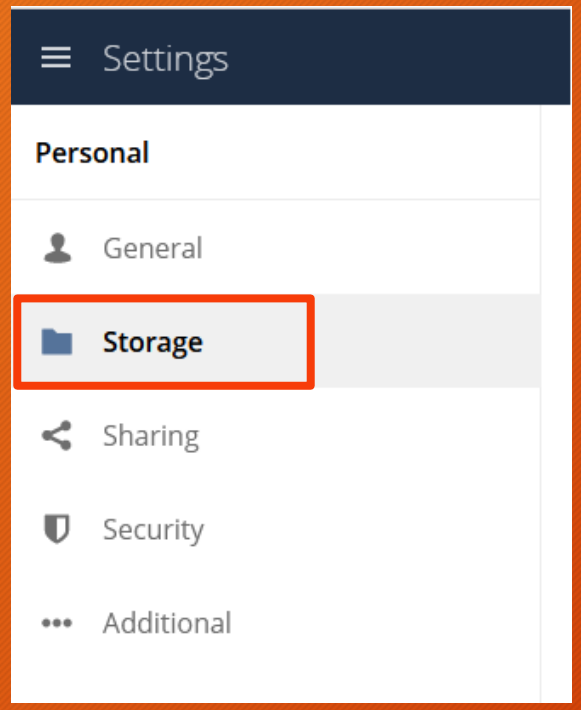
Slurm - Upload data

- Click on your user_name at the top right of the page and click on ”Settings”

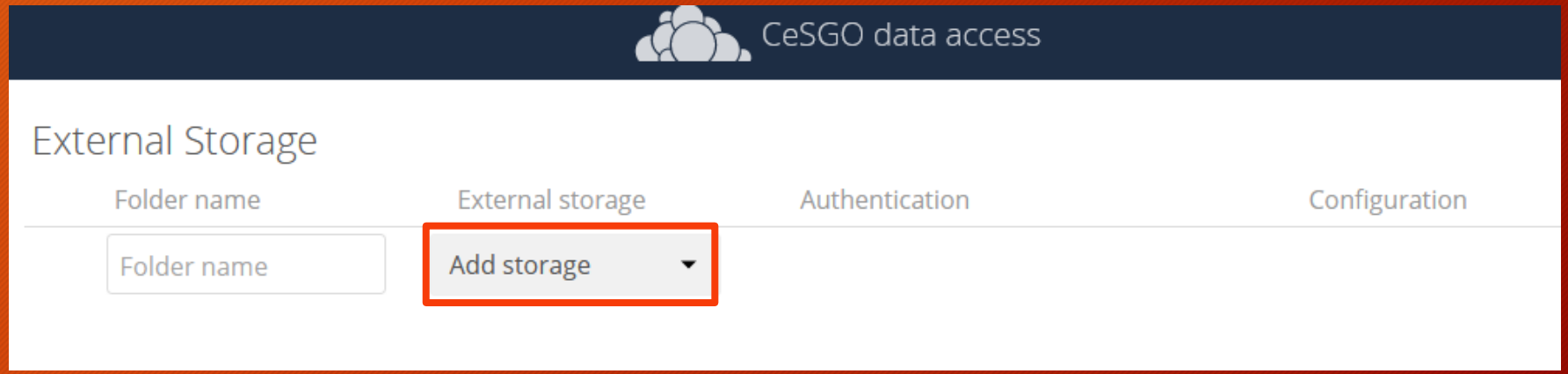


Slurm - Upload data

- On this new page, look for ”Storage” on the left



- Then, click on ”Add storage” and choose ”SFTP” *



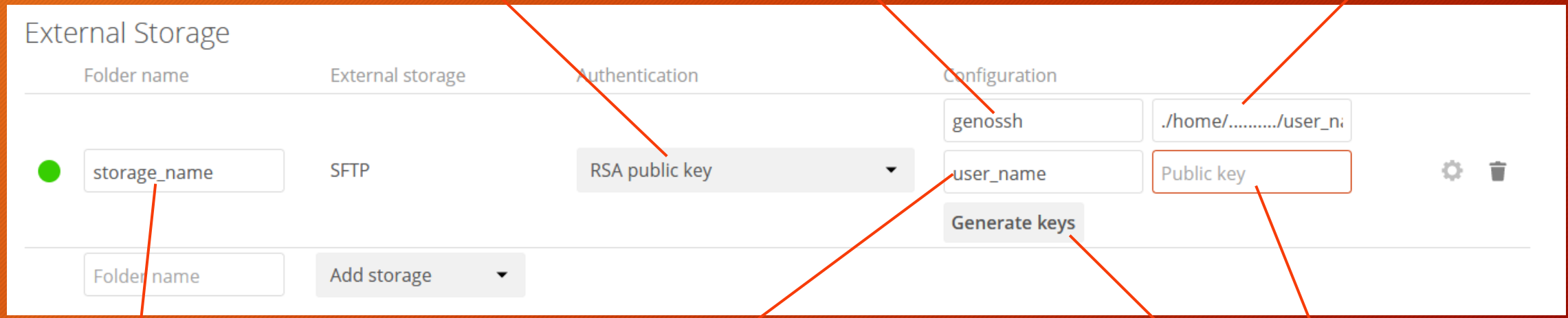
- ** : We made this choice for the purpose of the tutorial, for more informations please refer to the CeSGO documentation*

Slurm - Upload data

Choose « RSA pubic key »

Fill in with « genossh »

Path of your folder on genossh, like « ./home/genouest/group/user_name »
Or « ./groups/my_group »
(you can find this in your GenOuest account)



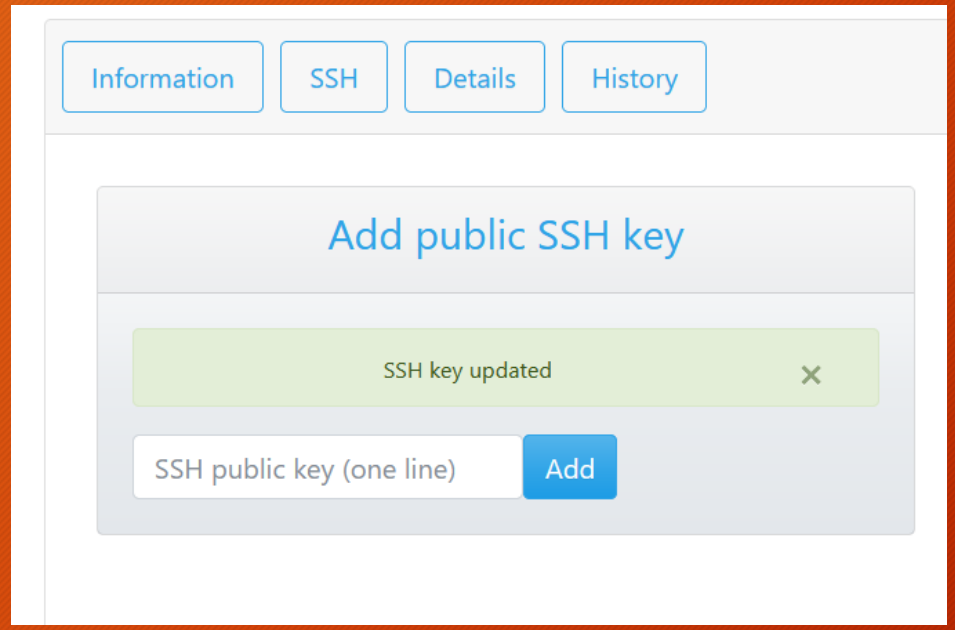
(optionnal) Give a name to your folder

Fill in with your GenOuest login

Click on « Generate keys »
And a new key should appear in « Public key ».
Copy the key, you'll need it right after.

Slurm - Upload data

- Go in your GenOuest account (https://my.genouest.org/manager2/user)
- Paste your new key and ”Add” it.

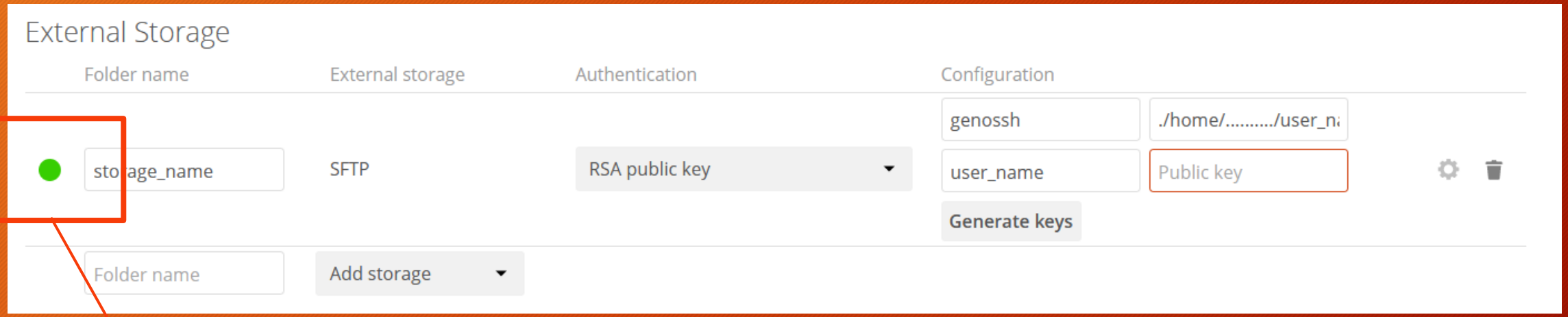


- If you don’t remember this part, check again the previous tutorial

”Tutorial GenOuest – SSH Access”

Slurm - Upload data

- Come back on the previous page ”Settings” on the CeSGO website

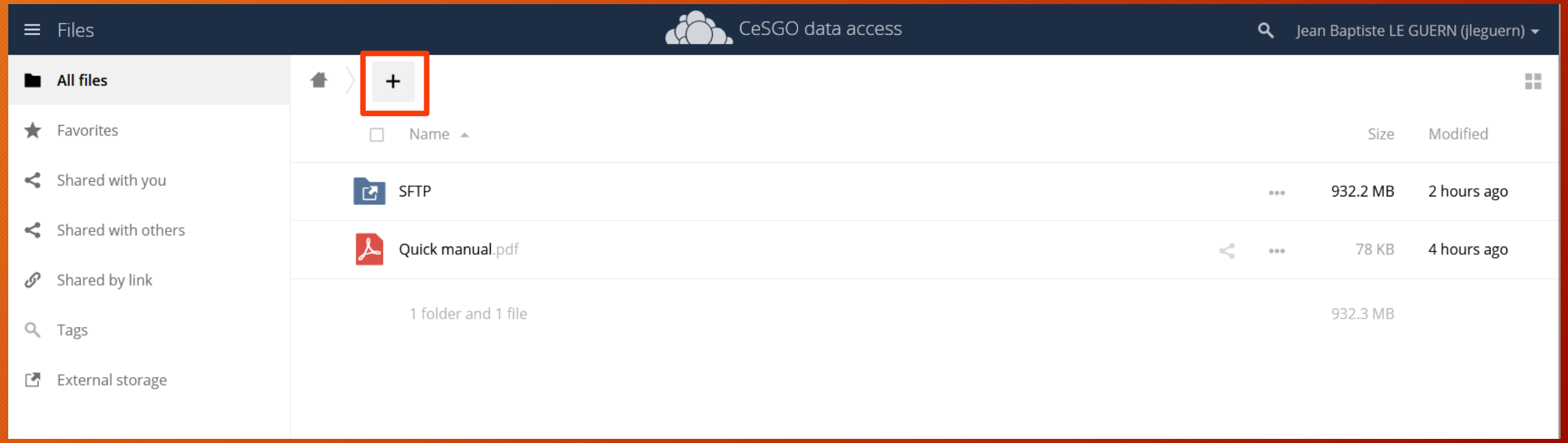


- If you see this rectangle, something went wrong. Check every field and that you have the same key there and in your GenOuest account. Else, check the CeSGO documentation.

- If you see this like in the image above, congrats, you can continue to the final step.

Slurm - Upload data

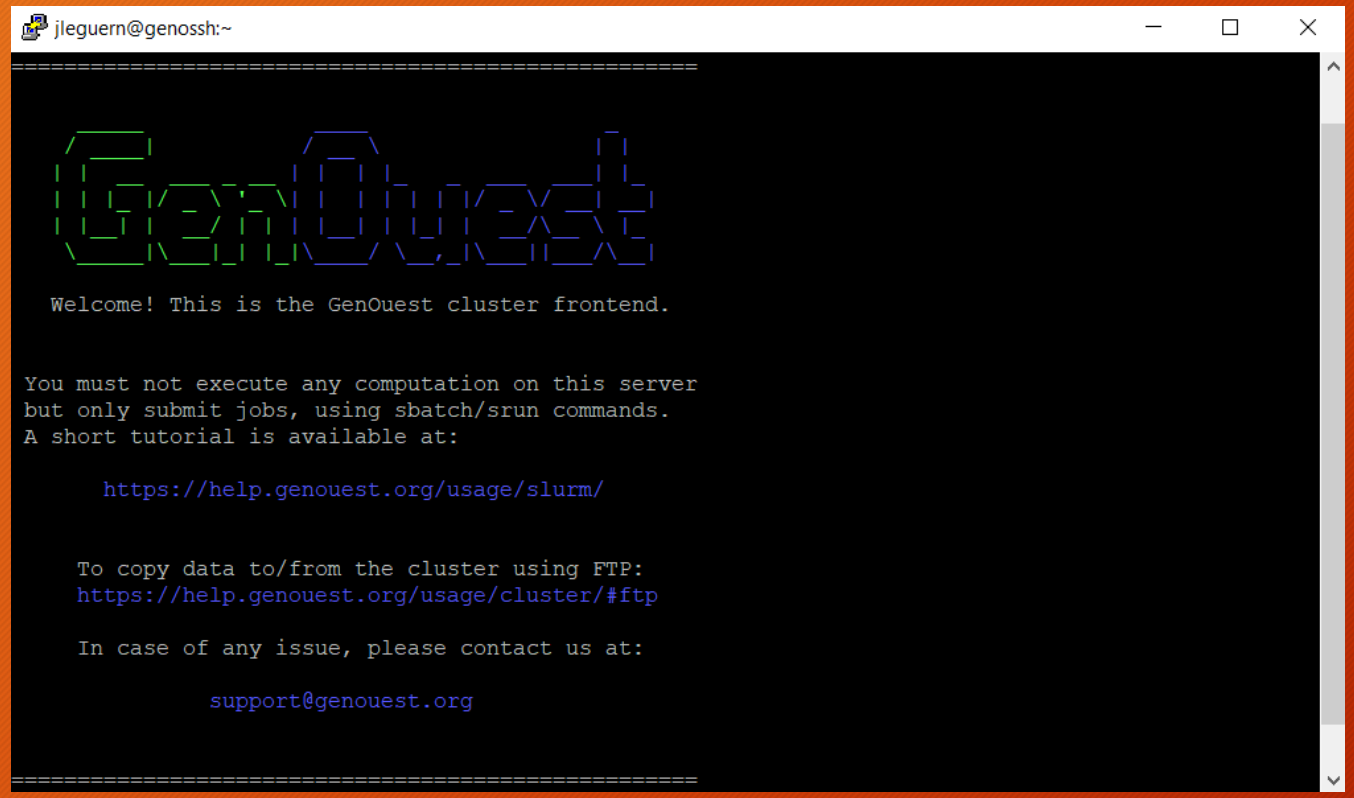
- Go bak on https://data-access.cesgo.org



- Refresh the website and you should see your new folder with the name you gave it earlier
- Double click on your folder and click on the ”+” button above, you can now add your local data.

Cluster (example with a Python script)

- Access to genossh.genouest.org like in the first tutorial



- Then, type these two lines :

(don't write user_name of course, but your GenOuest login)

```
srun --pty bash
squeue -u user_name
```

Cluster (example with a Python script)

- First line borrows a node to execute your future jobs

```
srun --pty bash
```

- Second one shows you informations about it

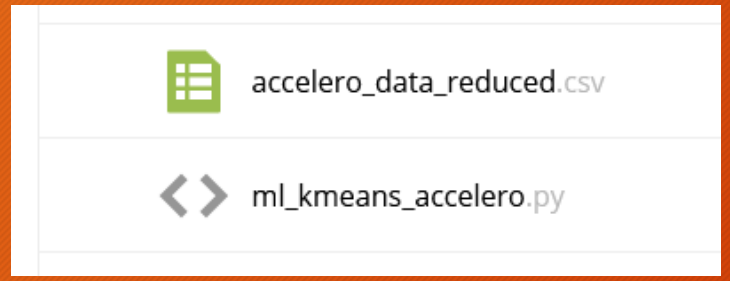
```
squeue -u user_name
```

- The name of your node should look like this (except you probably don’t have the n° 18)

```
cl1n018
```

Cluster (example with a Python script)

- On CeSGO Data Access, I uploaded in my storage some data and a Python script that does some Machine Learning on it



- But I still need to install some packages...
- In my case, i'll create a new environnement with Conda, but it's juste an example, feel free to experiment.

Cluster (example with a Python script)

- To activate conda

```
. /local/env/envconda.sh
```

- Create a conda environnement named ”my_env” with the package ”pandas” and ”scikit-learn” in it

```
conda create -p ~/my_env pandas scikit-learn
```

- Activate the environnement

```
To activate this environment, use

    $ conda activate /home/genouest/*****/*******/my_env
```

- I can now launch my Python script in this conda env

```
python3 ml kmeans accelero.py
```