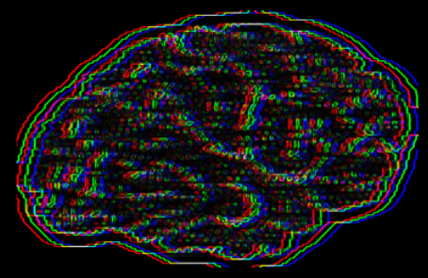

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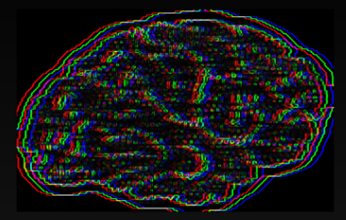
Using S3 storage

Fundamentals

INFN Perugia - Diego Ciangottini

Few notes before starting



Tools overview

- You will use during all the hands-on sessions a remote python environment
- The interface is a de facto standard nowadays: JupyterLab
  - It is a common solution to offer the user an interactive experience while working on remote resource
- Let’s take a look briefly to the main features together now
- https://sosc.131.154.96.42.myip.cloud.infn.it/hub

JupyterLab tour...

And btw, what you'll be using under the hood is this docker image:
ghcr.io/sosc-school/sosc22-jupyterlab:latest
created via:
https://github.com/SOSC-School/SOSC22-livesessions/blob/main/jupyterlab/Dockerfile

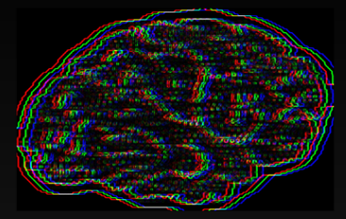
You can try if you feel nerd enough, to follow the today tutorial locally via docker.

DO NOT USE LOCALLY RUNNING CONTAINER FOR TUE AND THU WORKFLOW HANDS ON

They are using a cluster of machine setup, that you won't be able to access from your machine.

Let’s give a stab to S3 storage now

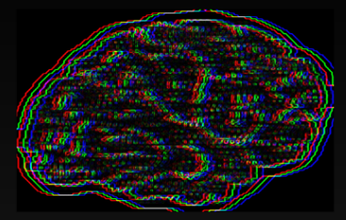
Objects come in buckets



How can I explore data

- Buckets are the building blocks of a S3 object store
- They are “standalone” collection of objects that can have different set of permissions and quota
- Every object inside a bucket is identified by a key (also called “name”)
- So in order to access a file in an object storage you’ll need:
  - The server URL
  - The bucket name
  - The object key

S3 storage web interface

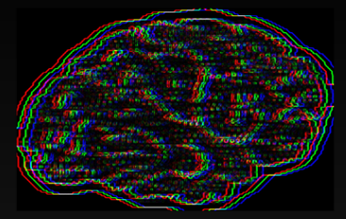


Main features

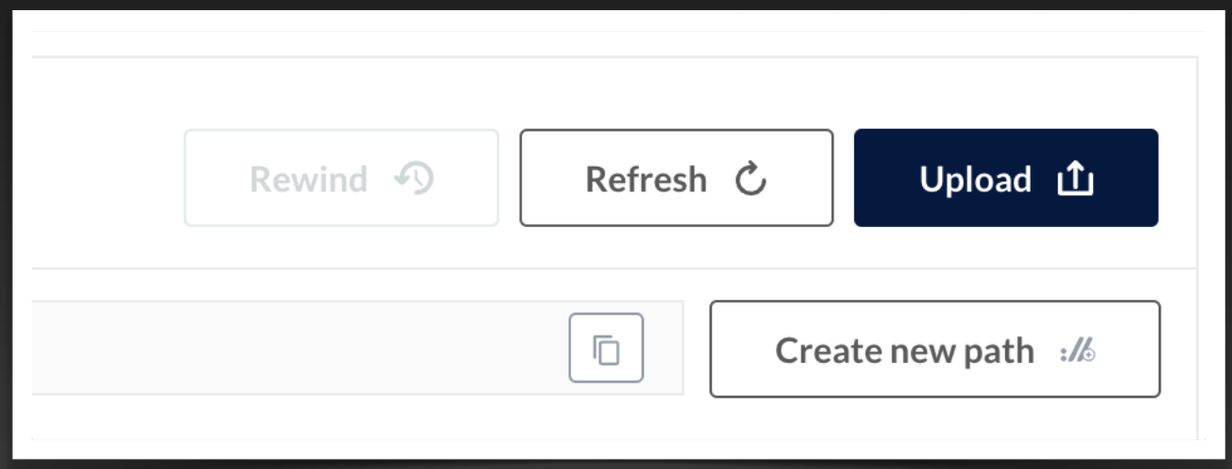
- https://console.131.154.96.42.myip.cloud.infn.it/
- Now you need to download the hands-on notebook from the school GitHub repository
  - https://github.com/SOSC-School/SOSC22-livesessions
- From there you can get your credentials and login
- **Let’s play a bit with this interface now**

Uploading my “object”

a.k.a. store files on my storage

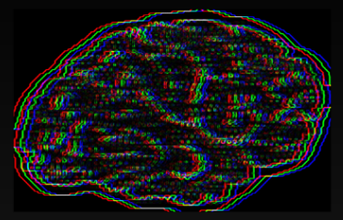


- Choose your bucket
  - In this case your username
- Locate/create a local data to upload
- Go ahead with either webUI or any S3 client

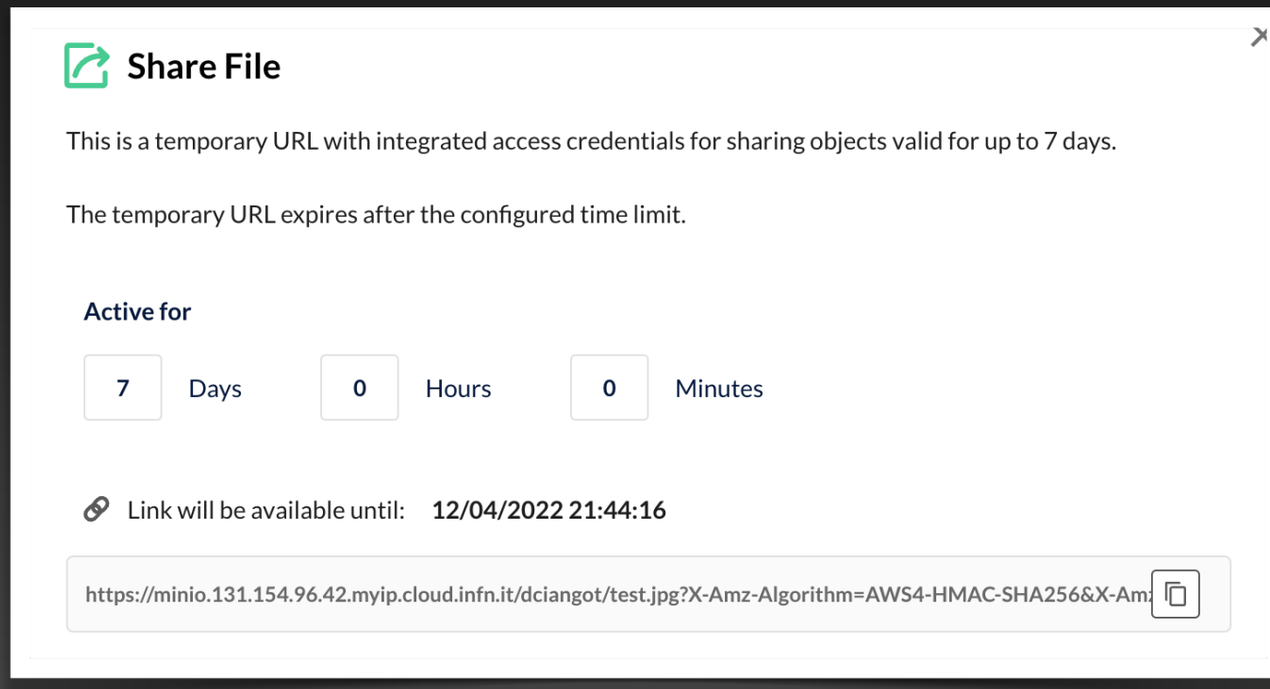


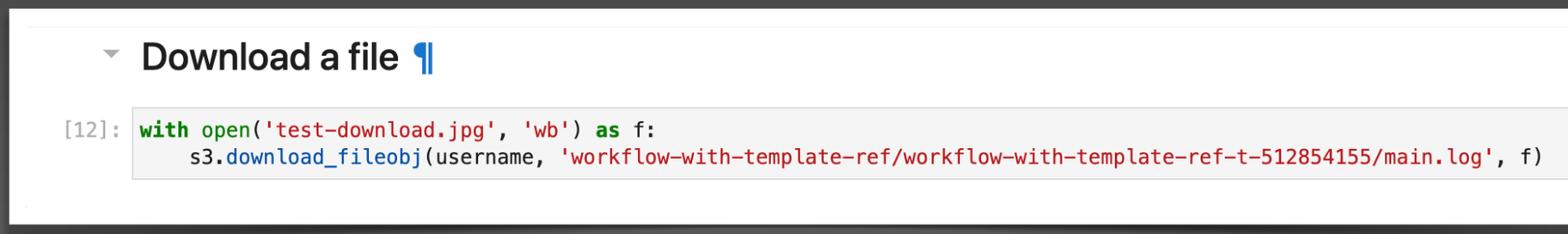
How can read my data?

Most common patterns

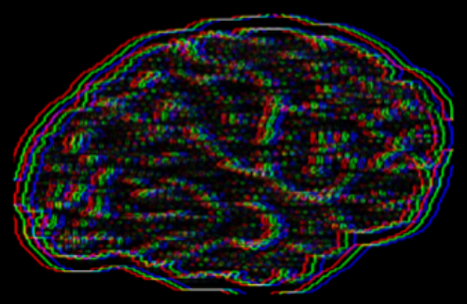


- You are now good to go
- You can share your file via a temporary pre-signed URL
- Also downloading it via the CLI or on of the many existing S3 python clients





Time to take a look...



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