Step1: Uploaded objects (images) into the container. Each object is a minimum of 30 MB size.
We can see the list of containers using the command “swift list”

[root@controller-1 ~]# **swift list**
Test Container
example
ind_east
ind_west
rahult-project
real_objects

We can see the list of objects uploaded in the particular container.

[root@controller-1 ~]# **swift list real_objects**
PP_F1_0003.JPG
PP_F1_0004.JPG
PP_F1_0005.JPG
PP_F1_0006.JPG
PP_F1_0007.JPG
PP_F1_0008.JPG
PP_F1_0009.JPG

Note: “real_objects” is the name of the container

Step2: Creating meta-latitude and meta-longitude for each object at once using the following python script.

```
import subprocess

lat = 0.0
lon = 0.0
for i in range(3, 9):
    headers = ['-H', 'X-Object-Meta-Latitude:' + str(lat), '-H', 'X-Object-Meta-Longitude:' + str(lon)]
    object_name = 'PP_F1_000{}.JPG'.format(i)
    subprocess.call(['swift', 'post'] + headers + ['real_objects', object_name])
    lon += 0.20
    lat += 0.20
```

Step3: Cross Checking the metadata created for one of the objects.

[root@controller-1 ~]# **swift stat real_objects PP_F1_0005.JPG**

```
          Account: AUTH_4cdeeac2b04448e4906e78e319be3cb1
        Container: real_objects
           Object: PP_F1_0005.JPG
     Content Type: image/jpeg
   Content Length: 30715014
    Last Modified: Tue, 27 Jun 2023 05:10:13 GMT
             ETag: 270e797eb52014481364f27053d1e738
    Meta Latitude: 0.4
   Meta Longitude: 0.4
    Accept-Ranges: bytes
      X-Timestamp: 1687842612.08024
       X-Trans-Id: tx1dce3709b65f4c6db4f8e-00649a87d0
X-Openstack-Request-Id: tx1dce3709b65f4c6db4f8e-00649a87d0
```

Step4: Filtering the objects based on meta latitude less than 0.6 using the python script attached below.

[root@controller-1 ~]# **python python_script_new.py http://192.168.2.101:5000/v3 admin RegionOne admin 42babbbd207f4b3d real_objects x-object-meta-latitude:0.0-0.6**

PP_F1_0003.JPG image/jpeg
PP_F1_0004.JPG image/jpeg
PP_F1_0005.JPG image/jpeg
PP_F1_0006.JPG image/jpeg

Filtering objects based on meta longitude less than 0.4 using the python script.

[root@controller-1 ~]# **python python_script_new.py http://192.168.2.101:5000/v3 admin RegionOne admin 42babbbd207f4b3d real_objects x-object-meta-longitude:0.0-0.4**

PP_F1_0003.JPG image/jpeg
PP_F1_0004.JPG image/jpeg
PP_F1_0005.JPG image/jpeg

Python script:
https://docs.google.com/document/d/1rRP5I_rwEvH6QYa4EUmNUvRUQZQM_Moh4tx1-USgf8I/edit?usp=sharing