

- 5. Your application evolves over time and now the `client.docget` user also needs write access to the `docs` namespace within the `replpool1` pool. This user also needs to store documents in the `docarchive` pool.

Confirm that the `client.docget` user cannot store objects yet in the `docs` namespace within the `replpool1` pool:

```
[ceph: root@clienta /]# rados --id docget -p replpool1 -N docs put \
mywritetest /etc/hosts
error putting mypool/mywritetest: (1) Operation not permitted
```

- 6. Grant the `client.docget` user `rw` capabilities on the `docs` namespace within the `replpool1` pool, and `rw` capabilities on the non-yet-created `docarchive` pool. Confirm that the `client.docget` user can now store objects in the `docs` namespace.

```
[ceph: root@clienta /]# ceph auth caps client.docget mon 'allow r' \
osd 'allow rw pool=replpool1 namespace=docs, allow rw pool=docarchive'
updated caps for client.docget
[ceph: root@clienta /]# rados --id docget -p replpool1 -N docs put \
mywritetest /etc/hosts
```

You must define the total user capabilities with the `ceph auth caps` command because it overwrites previous definitions. You can define capabilities on pools that do not exist yet, such as the `docarchive` pool.

- 7. Exit the `cephadm` shell and clean up by deleting the `client.docedit` and the `client.docget` users. Remove the associated key-ring files.

```
[ceph: root@clienta /]# exit
[root@clienta ~]$ rm /etc/ceph/ceph.client.docedit.keyring
[root@clienta ~]$ ssh serverd rm /etc/ceph/ceph.client.docedit.keyring
[root@clienta ~]$ cephadm shell -- ceph auth del client.docedit
updated
[root@clienta ~]$ rm /etc/ceph/ceph.client.docget.keyring
[root@clienta ~]$ ssh serverd rm /etc/ceph/ceph.client.docget.keyring
[root@clienta ~]$ cephadm shell -- ceph auth del client.docget
updated
```

- 8. Return to workstation as the student user.

```
[root@clienta ~]$ exit
[admin@clienta ~]$ exit
[student@workstation ~]$
```

Finish

On the workstation machine, use the `lab` command to complete this exercise. This is important to ensure that resources from previous exercises do not impact upcoming exercises.

```
[student@workstation ~]$ lab finish component-auth
```

This concludes the guided exercise.