

```
[ceph: root@clienta /]# ceph osd tree
```

ID	CLASS	WEIGHT	TYPE NAME	STATUS	REWEIGHT	PRI-AFF
-1		0.08817	root default			
-3		0.02939	host serverc			
0	hdd	0.00980	osd.0	up	1.00000	1.00000
1	hdd	0.00980	osd.1	up	1.00000	1.00000
2	hdd	0.00980	osd.2	up	1.00000	1.00000
-5		0.02939	host serverd			
3	hdd	0.00980	osd.3	up	1.00000	1.00000
4	hdd	0.00980	osd.4	up	1.00000	1.00000
5	hdd	0.00980	osd.5	up	1.00000	1.00000
-7		0.02939	host servere			
6	hdd	0.00980	osd.6	up	1.00000	1.00000
7	hdd	0.00980	osd.7	up	1.00000	1.00000
8	hdd	0.00980	osd.8	up	1.00000	1.00000

- 3. List all active disk devices in the cluster. Use `grep` or `awk` to filter available devices from the `ceph orch device ls` command.

3.1. List all in-use disk devices in the cluster.

```
[ceph: root@clienta /]# ceph device ls
```

WEAR	LIFE	EXPECTANCY	HOST:DEV	DAEMONS
11fa06d1-e33e-45d1-a			serverc.lab.example.com:vda	mon.serverc.lab.example.com
44b28a3a-a008-4f9f-8			servere.lab.example.com:vda	mon.servere
69a83d4c-b41a-45e8-a			serverd.lab.example.com:vdc	osd.4
6d0064d3-0c4e-4458-8			serverc.lab.example.com:vdd	osd.2
74995d99-2cae-4683-b			clienta.lab.example.com:vda	mon.clienta
7f14ca40-eaad-4bf6-a			servere.lab.example.com:vdb	osd.6
90b06797-6a94-4540-a			servere.lab.example.com:vdc	osd.7
97ed8eda-4ca4-4437-b			serverd.lab.example.com:vdb	osd.3
a916efa8-d749-408e-9			serverd.lab.example.com:vda	mon.serverd
b1b94eac-1975-41a2-9			serverd.lab.example.com:vdd	osd.5
ca916831-5492-4014-a			serverc.lab.example.com:vdb	osd.0
caee7c62-d12a-45c4-b			serverc.lab.example.com:vdc	osd.1
f91f6439-0eb9-4df0-a			servere.lab.example.com:vdd	osd.8

- 3.2. Use `grep` or `awk` to filter available devices from the `ceph orch device ls` command.

```
[ceph: root@clienta /]# ceph orch device ls | awk /server/ | grep Yes
```

HOST	DEV	CLASS	UUID	SIZE	HEALTH	AVAIL	USED	YES
serverc.lab.example.com	/dev/vde	hdd	c63...82a-b	10.7G	Unknown	N/A	N/A	Yes
serverc.lab.example.com	/dev/vdf	hdd	6f2...b8e-9	10.7G	Unknown	N/A	N/A	Yes
serverd.lab.example.com	/dev/vde	hdd	f84...6f0-8	10.7G	Unknown	N/A	N/A	Yes
serverd.lab.example.com	/dev/vdf	hdd	297...63c-9	10.7G	Unknown	N/A	N/A	Yes
servere.lab.example.com	/dev/vde	hdd	2aa...c03-b	10.7G	Unknown	N/A	N/A	Yes
servere.lab.example.com	/dev/vdf	hdd	41c...794-b	10.7G	Unknown	N/A	N/A	Yes

- 4. Create two OSD daemons by using the disk devices `/dev/vde` and `/dev/vdf` on `serverc.lab.example.com`. Record the ID assigned to each OSD. Verify that the daemons are running correctly. View the cluster storage size and the new OSD tree.