```
[ceph: root@clienta /]# osdmaptool --print map.bin
osdmaptool: osdmap file 'map.bin'
epoch 480
fsid 11839bde-156b-11ec-bb71-52540000fa0c
created 2021-09-14T14:50:39.401260+0000
modified 2021-09-27T12:27:38.328351+0000
flags sortbitwise,recovery_deletes,purged_snapdirs,pglog_hardlimit
crush_version 69
full_ratio 0.97
backfillfull_ratio 0.9
nearfull_ratio 0.9
...output omitted...
```

5. Extract and decompile the current CRUSH map, then compile and import the CRUSH map. You will not change any map settings, but only observe the change in the epoch.

5.1. Use the `osdmaptool --export-crush` command to extract a binary copy of the CRUSH map and save it in the `crush.bin` file.

```
[ceph: root@clienta /]# osdmaptool --export-crush crush.bin map.bin
osdmaptool: osdmap file 'map.bin'
osdmaptool: exported crush map to crush.bin
```

5.2. Use the `crushtool` command to decompile the binary CRUSH map.

```
[ceph: root@clienta /]# crushtool -d crush.bin -o crush.txt
```

5.3. Use the `crushtool` command to compile the CRUSH map using the `crush.txt` file. Send the output to the `crushnew.bin` file.

```
[ceph: root@clienta /]# crushtool -c crush.txt -o crushnew.bin
```

5.4. Use the `osdmaptool --import-crush` command to import the new binary CRUSH map into a copy of the binary OSD map.

```
[ceph: root@clienta /]# cp map.bin mapnew.bin
[ceph: root@clienta /]# osdmaptool --import-crush crushnew.bin mapnew.bin
osdmaptool: osdmap file 'mapnew.bin'
osdmaptool: imported 1300 byte crush map from crushnew.bin
osdmaptool: writing epoch 482 to mapnew.bin
```

6. Use the `osdmaptool` command to test the impact of changes to the CRUSH map before applying them in production.

6.1. Run the `osdmaptool --test-map-pgs-dump` command to display the mapping between PGs and OSDs. The `osdmaptool` command output might be different in your lab environment.