

## 5. Distribute Your App Across a Swarm Cluster.

```
root@ip-172-31-17-73:~# apt install docker.io
Reading package lists... Done
Building dependency tree
Reading state information... Done
docker.io is already the newest version (18.09.7-0ubuntu1~18.04.3).
The following packages were automatically installed and are no longer required:
  apache2-bin apache2-data libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.2-0
Use 'apt autoremove' to remove them.
0 upgraded, 0 newly installed, 0 to remove and 9 not upgraded.
root@ip-172-31-17-73:~# docker version
Client:
 Version:           18.09.7
 API version:       1.39
 Go version:        go1.10.1
 Git commit:        2d0083d
 Built:             Wed Jul  3 12:13:59 2019
 OS/Arch:           linux/amd64
 Experimental:      false

Server:
 Engine:
  Version:          18.09.7
  API version:      1.39 (minimum version 1.12)
  Go version:       go1.10.1
  Git commit:       2d0083d
  Built:            Mon Jul  1 19:31:12 2019
  OS/Arch:          linux/amd64
  Experimental:     false
root@ip-172-31-17-73:~#
```

```
root@ip-172-31-17-73:~# ping dockerworker1
PING dockerworker1 (172.31.86.69) 56(84) bytes of data.
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=1 ttl=64 time=0.637 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=2 ttl=64 time=0.727 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=3 ttl=64 time=0.673 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=4 ttl=64 time=5.00 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=5 ttl=64 time=0.674 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=6 ttl=64 time=0.647 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=7 ttl=64 time=0.751 ms
64 bytes from dockerworker1 (172.31.86.69): icmp_seq=8 ttl=64 time=0.663 ms
^C
--- dockerworker1 ping statistics ---
8 packets transmitted, 8 received, 0% packet loss, time 7136ms
rtt min/avg/max/mdev = 0.637/1.222/5.005/1.430 ms
root@ip-172-31-17-73:~#
```

```
root@ip-172-31-86-69:~# ping dockermanager
PING dockermanager (172.31.17.73) 56(84) bytes of data.
64 bytes from dockermanager (172.31.17.73): icmp_seq=1 ttl=64 time=0.669 ms
64 bytes from dockermanager (172.31.17.73): icmp_seq=2 ttl=64 time=0.693 ms
64 bytes from dockermanager (172.31.17.73): icmp_seq=3 ttl=64 time=0.693 ms
64 bytes from dockermanager (172.31.17.73): icmp_seq=4 ttl=64 time=0.713 ms
64 bytes from dockermanager (172.31.17.73): icmp_seq=5 ttl=64 time=0.697 ms
^C
--- dockermanager ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4100ms
rtt min/avg/max/mdev = 0.669/0.693/0.713/0.014 ms
root@ip-172-31-86-69:~#
```

```
root@ip-172-31-17-73:~# docker swarm init --advertise-addr 172.31.17.73
Swarm initialized: current node (ba8j0ti2lols6f8pbxfyqy5lc) is now a manager.

To add a worker to this swarm, run the following command:

    docker swarm join --token SWMTKN-1-2o9yesj2p0jk6swory232wthdrec38yeglr037ryoxe6duuy4n-ant4lo3e6xkdociyk9ut5ky4j 172.31.17.73:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.

root@ip-172-31-17-73:~#
```

```
root@ip-172-31-86-69:~# docker swarm join --token SWMTKN-1-2o9yesj2p0jk6swory232wthdrec38yeglr037ryoxe6duuy4n-ant4lo3e6xkdociyk9ut5ky4j 172.31.17.73:2377
This node joined a swarm as a worker.
root@ip-172-31-86-69:~#

root@ip-172-31-17-73:~# docker node ls
ID                                HOSTNAME                STATUS    AVAILABILITY    MANAGER STATUS    ENGINE VERSION
ba8j0ti2lols6f8pbxfyqy5lc *      ip-172-31-17-73         Ready     Active           Leader             18.09.7
sk9btki9xk5gr39jj5j7kdztz       ip-172-31-86-69         Ready     Active
root@ip-172-31-17-73:~#
```