Docker

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| Docker Compose | Docker Swarm |
| Compose: is used to control multiple containers on a single system. Much like the Dockerfile we looked at to build an image, there is a text file that describes the application: which images to use, how many instances, the network connections, etc. But Compose only runs on a single system so while it is useful, we are going to skip Compose[1](https://training.play-with-docker.com/ops-s1-swarm-intro/#fn-compose) and go straight to Docker Swarm Mode. | Swarm:  tells Docker that you will be running many Docker engines and you want to coordinate operations across all of them. Swarm mode combines the ability to not only define the application architecture, like Compose, but to define and maintain high availability levels, scaling, load balancing, and more. With all this functionality, Swarm mode is used more often in production environments than it’s more simplistic cousin, Compose. |
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# Application example

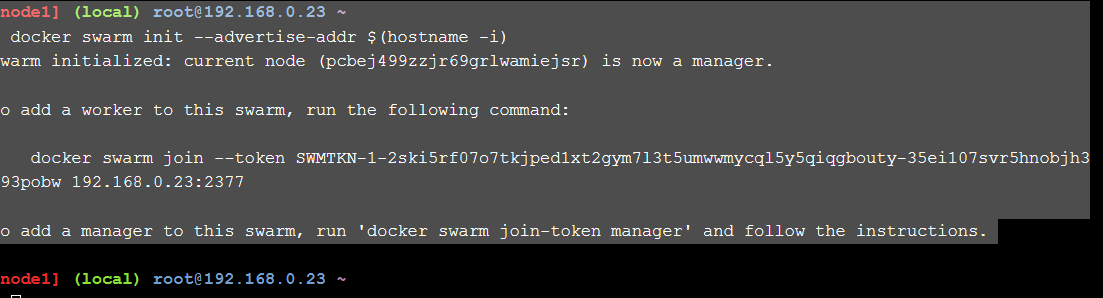
Voting application

## Initialize Your Swarm

Most production swarms have at least three manager nodes in them and many worker nodes. Three managers is the minimum to have a true high-availability cluster with quorum. Note that manager nodes can run your container tasks the same as a worker node, but this functionality can also be separated so that managers only perform the management tasks.

Command to initialize Docker Swarm Mode:

$docker swarm init –advertise-addr ${hostname –i)



Swarm manger is created and is listening on the IP address returned by the (hostname –i) command.