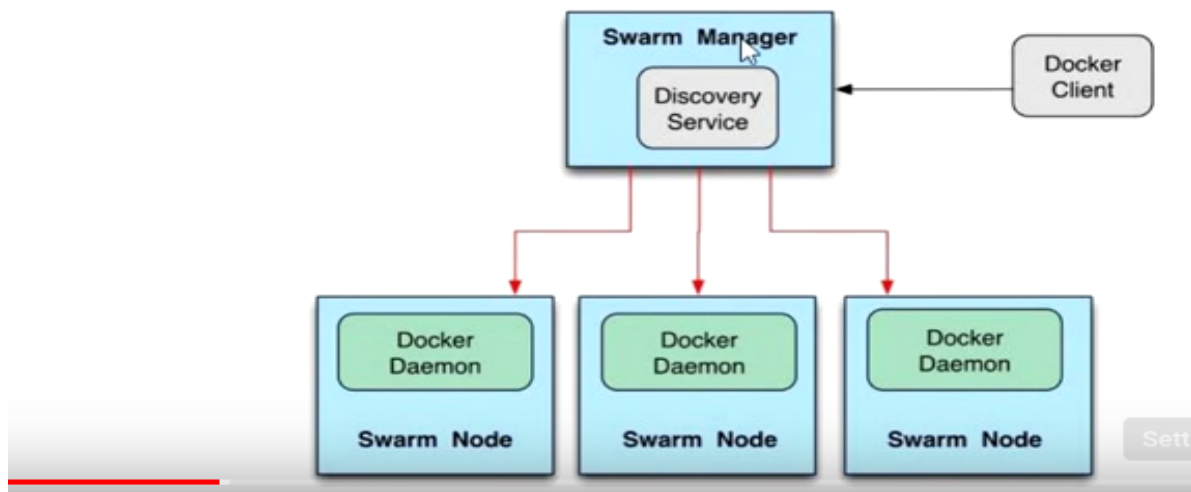**Docker swarm - introduction**

Docker Swarm Architecture

- Container orchestrating tool , means we can handle **multiple containers** running in **multiple host machines**.
- Each machine is a node in docker swarm.
- We have 'm' number of docker daemon in 'n' number of host machines also known as **worker nodes** .
- We have one node identified as a **manager node**.
- Containers usually run in worker nodes .
- **Services are controlled in manager nodes.**

SWARM INITIALISATION

- **sudo docker swarm init –advertise-addr 192.168.1.11**
- Ip address is selected so that other machines can access it .

(copy the join commands)

Docker swarm - introduction

Docker Swarm Architecture
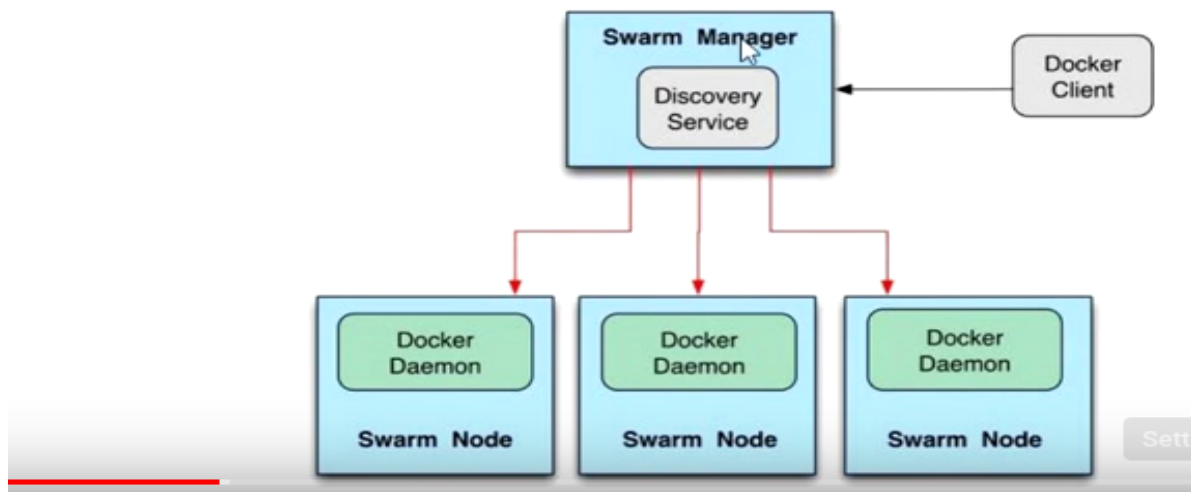
- Use the join command in worker machines to join the swarm. After successful joins use the below command on manager node to see available nodes in swarm

SWARM NODE

- **docker node demote <node name>** Demotes an existing manager so that it is no longer a manager.
- **docker node inspect <node name>** returns information about nodes in json format.
- **docker node ls** lists all nodes under manager.
- **docker node promote <node name>** promotes a node to a manager node.
- **docker node ps <node name>** lists all running process in a node
- **docker node rm <node name>**

DOCKER SERVICES

- **sudo docker service create –replicas 2 -p 80:80 –name web1 httpd**
- httpd is the image name.
- It runs the image service in two nodes in swarm.
- **sudo docker service create –mode global -p 80:81 –name web1 httpd**
- It runs the image service in all nodes in swarm.

Docker swarm - introduction

Docker Swarm Architecture