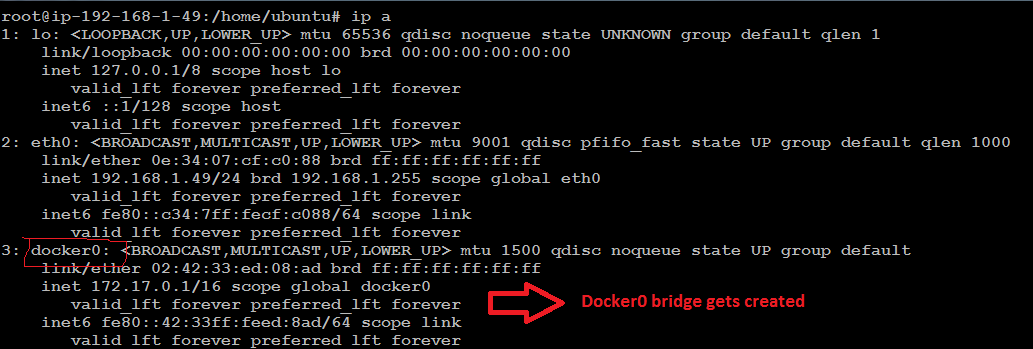
**Step 1 : Check the docker0 bridge**

ip a



**Step 2 : Run a new container**

docker run -itd –name new-container ubuntu:14.04 /bin/bash

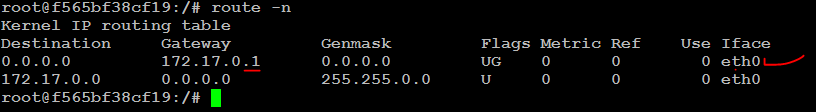


**Step 3 : Login to the container**

docker exec -it new-container /bin/bash

**Step 4 : Verify the route for the container**

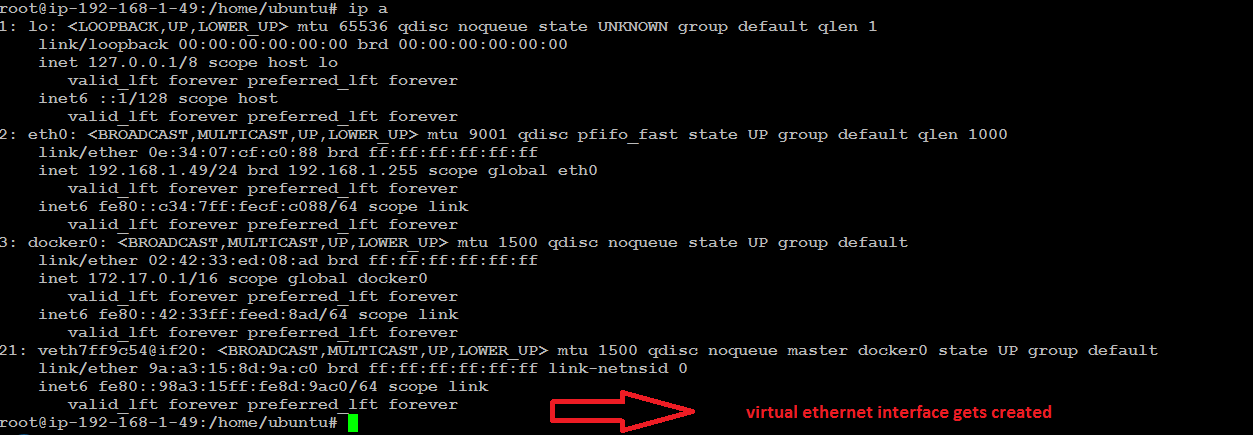
root@f565bf38cf19:/# route –n



root@f565bf38cf19:/# exit

**Step 5 : Verify the interfaces**

ip a



**Step 6 :** Running a container with desired hostname and container name

docker run -itd --name anil -h web ubuntu:14.04 /bin/bash

docker exec -it anil /bin/bash

hostname

Note : Once you launch new container a virtual Ethernet port on docker0 switch gets created

exit

**Step 7 : Run a new container with port mapping**

docker run -d --name d1 -p 5001:80 anilbidari/python:v1

docker run -d –name d2 -p 5002:80 anilbidari/python:v2

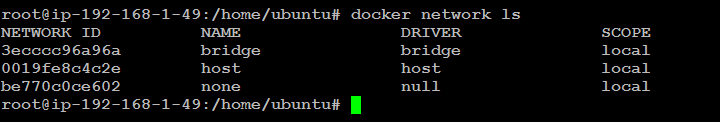
**Step 8 : verify the port mapping**

docker port d1



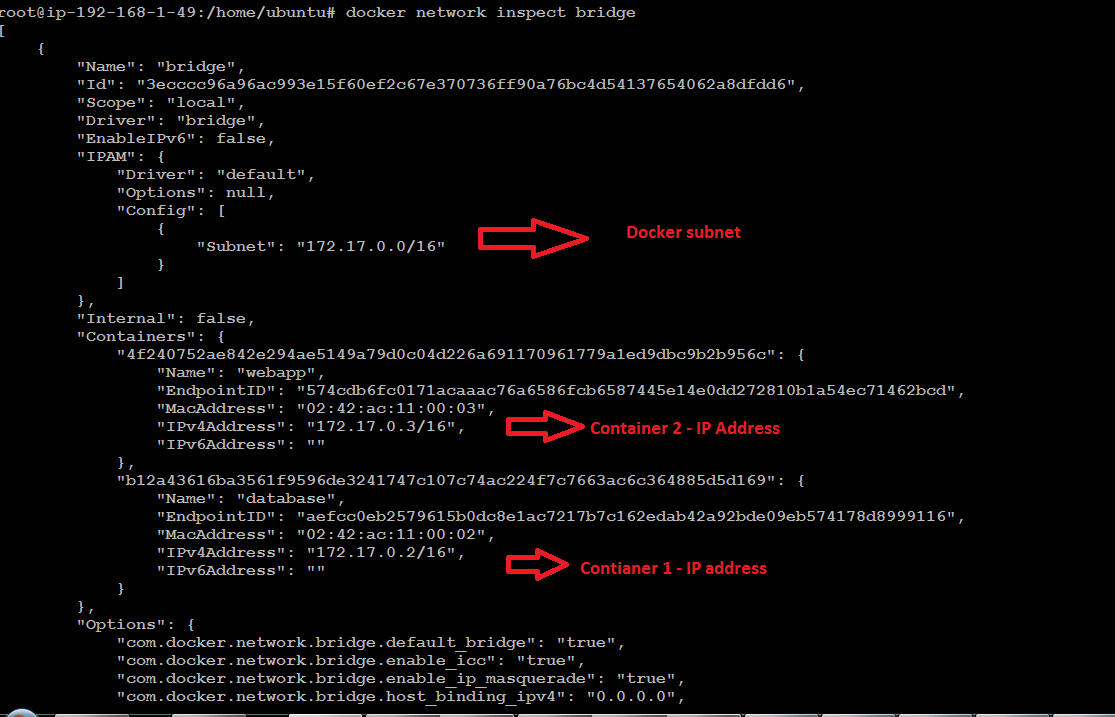
**Step 9 : List the docker networks**

docker network ls



**Step 10 : Inspect details about your bridge docker0**

docker network inspect bridge

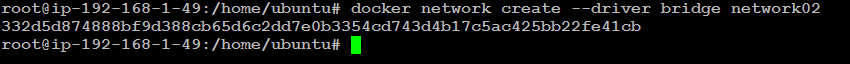


The Engine automatically creates a Subnet and Gateway to the network. The docker run command automatically adds new containers to this network.

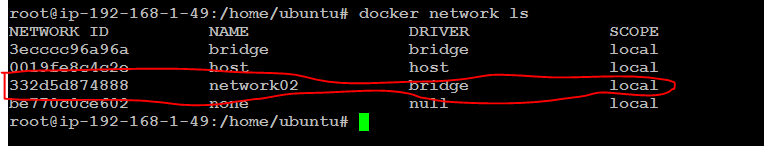
**Step 11 : Create a two network**

docker network create --driver bridge network01

docker network create --driver bridge network02



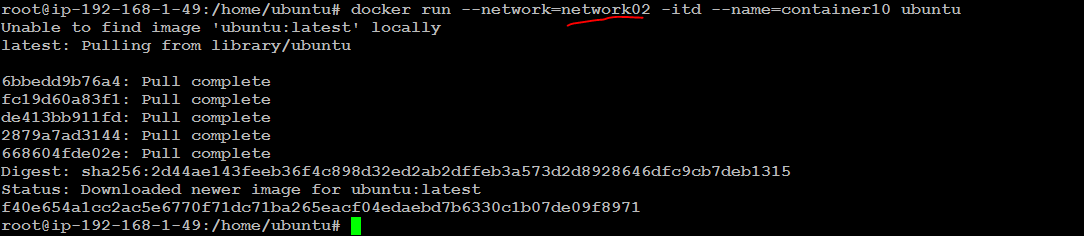
**Step 12 : List available networks and verify new network is created**



**Step 13 : Creating 2 new container in the new network created**

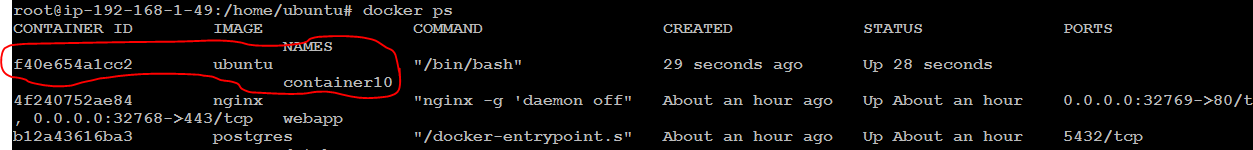
docker run --network=network01 -itd --name=container01 ubuntu:14.04

docker run --network=network02 -itd --name=container02 ubuntu:14.04



**Step 14 : List your running containers**

docker ps



**Step 15 : Inspect both networks**

docker network inspect network01

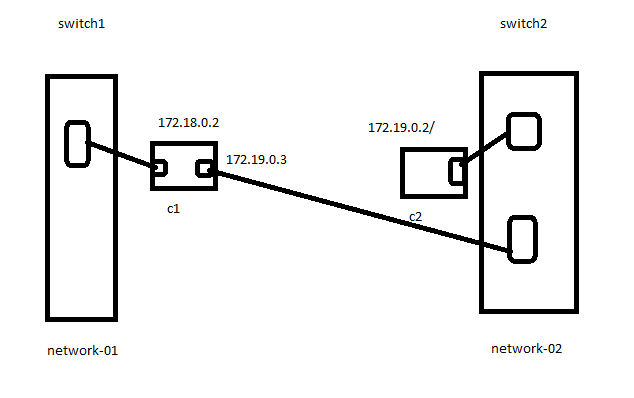
docker network inspect network02

****

docker exec -it container01 /bin/bash

root@760ea20aaaff:/# ping 172.19.0.2

root@760ea20aaaff:/# exit

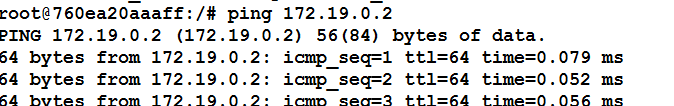


**Attach your container 01 to netowrk01**

docker network connect network02 container01

docker exec -it container01 /bin/bash

**root@8f6d85f7b54f:/# ping 172.19.0.2**



root@760ea20aaaff:/# exit

**Creating network with desired cidr**

docker network create --driver=bridge --subnet=10.0.1.0/24 --gateway=10.0.1.1 network03

docker network inspect network03

docker run --network=network03 --ip 10.0.1.4 -itd --name=container03 ubuntu:14.04

docker exec -it container03 /bin/bash