

Docker Assignment 3

```
master@master-vm:~/Desktop$ docker swarm init --advertise-addr 192.168.219.134
Swarm initialized: current node (k2x4tl4ddcc892yoswrdopld0) is now a manager.

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

    docker swarm join --token SWMTKN-1-2aodz27wuz2p7gpztam2kyapjc13cpa86ygjhnt5ut3ggy9njs-9aulrzp1j1uwwg3uyypbyldegv 192.168.219.134:2377

To add a manager to this swarm, run 'docker swarm join-token manager' and follow the instructions.
master@master-vm:~/Desktop$ docker node ls
ID                HOSTNAME        STATUS      AVAILABILITY   MANAGER STATUS   ENGINE VERSION
k2x4tl4ddcc892yoswrdopld0 *  master-vm      Ready       Active          Leader            28.0.1
xwa7szpwn8reafs7wuyxgeu7m  node1-vm       Ready       Active          -                 26.1.3
frl9qf1hfr52ohge3f5gqhge2  node2-vm       Ready       Active          -                 26.1.3
master@master-vm:~/Desktop$ ls
-V
master@master-vm:~/Desktop$ mkdir docker_swarm
master@master-vm:~/Desktop$ cd docker_swarm/
master@master-vm:~/Desktop/docker_swarm$ touch docker-compose.yml
master@master-vm:~/Desktop/docker_swarm$ ls
docker-compose.yml
master@master-vm:~/Desktop/docker_swarm$ nano docker-compose.yml
```

```
GNU nano 6.2
Version: '3.8'

services:
  nginx:
    image: nginx:latest
    ports:
      - "80:80"
    deploy:
      replicas: 5
      restart_policy:
        condition: on-failure
    networks:
      - my_network

  redis:
    image: redis:alpine
    deploy:
      replicas: 4
      restart_policy:
        condition: on-failure
    networks:
      - my_network

  postgres:
    image: postgres:13
    environment:
      POSTGRES_USER: admin
      POSTGRES_PASSWORD: password
    volumes:
      - postgres_data:/var/lib/postgresql/data
    deploy:
      replicas: 1
      restart_policy:
        condition: on-failure
    networks:
      - my_network

networks:
  my_network:
    driver: bridge # Specify the network driver (optional,

volumes:
  postgres_data:
```

```

master@master-vm:~/Desktop/docker_swarm$ docker stack deploy -c docker-compose.yml newstack
Since --detach=false was not specified, tasks will be created in the background.
In a future release, --detach=false will become the default.
Creating service newstack_redis
Creating service newstack_postgres
Creating service newstack_nginx
master@master-vm:~/Desktop/docker_swarm$ docker service ls
ID                NAME                MODE                REPLICAS            IMAGE                PORTS
yahuvl08ldo3     newstack_nginx      replicated          5/5                 nginx:latest        *:80->80/tcp
owkv3ugfe8fb     newstack_postgres   replicated          1/1                 postgres:13
art2ztjlfedc     newstack_redis      replicated          4/4                 redis:alpine
master@master-vm:~/Desktop/docker_swarm$ docker ps
CONTAINER ID        IMAGE                COMMAND              CREATED             STATUS              PORTS
08ba24363220       nginx:latest        "/docker-entrypoint..." 23 seconds ago     Up 22 seconds      80/tcp
bc279b482ea5       redis:alpine        "docker-entrypoint.s..." 35 seconds ago     Up 34 seconds      6379/tcp
8b61fb97eece       redis:alpine        "docker-entrypoint.s..." 35 seconds ago     Up 34 seconds      6379/tcp
1e958db3f8a6       portainer/portainer-ce "/portainer"          6 days ago         Up 2 hours         8000/tcp, 9443/tcp, 0.0.0.0:9000->9000/tcp, [::]:9000->9000/tcp
master@master-vm:~/Desktop/docker_swarm$

```

Node 1

```

node1@node1-vm:~/Desktop$ docker swarm join --token SWMTKN-1-2aodz27wuz2p7gpztam2kyapjc13cpa86yggjht5ut3gyy9njs-9aulrzp1j1uwwg3uyphy
idegv 192.168.219.134:2377
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdo
cker.sock/v1.45/swarm/join": dial unix /var/run/docker.sock: connect: permission denied
node1@node1-vm:~/Desktop$ sudo chmod 666 /var/run/docker.sock
node1@node1-vm:~/Desktop$ docker swarm join --token SWMTKN-1-2aodz27wuz2p7gpztam2kyapjc13cpa86yggjht5ut3gyy9njs-9aulrzp1j1uwwg3uyphy
idegv 192.168.219.134:2377
This node joined a swarm as a worker.

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```

node1@node1-vm:~/Desktop$ docker pull nginx:latest
latest: Pulling from library/nginx
7cf63256a31a: Already exists
bf9acace214a: Pull complete
513c3649bb14: Pull complete
d014f92d532d: Pull complete
9dd21ad5a4a6: Pull complete
943ea0f0c2e4: Pull complete
103f50cb3e9f: Pull complete
Digest: sha256:9d6b58feebd2dbd3c56ab585333d627cc6e281011cfd6050fa4bcf2072c9496
Status: Downloaded newer image for nginx:latest
docker.io/library/nginx:latest
node1@node1-vm:~/Desktop$ docker pull redis:apline
Error response from daemon: manifest for redis:apline not found: manifest unknown: manifest unknown
node1@node1-vm:~/Desktop$ docker pull redis:alpine
alpine: Pulling from library/redis
f18232174bc9: Pull complete
16cd0457255f: Pull complete
fa05f5234346: Pull complete
4d03bd351ab9: Pull complete
4738865c5f32: Pull complete
927ba88b2847: Pull complete
4f4fb700ef54: Pull complete
4c7f0522bc7d: Pull complete
Digest: sha256:02419de7eddf55aa5bcf49efb74e88fa8d931b4d77c07eff8a6b2144472b6952
Status: Downloaded newer image for redis:alpine
docker.io/library/redis:alpine

```

```

node1@node1-vm:~/Desktop$ docker pull postgres:13
13: Pulling from library/postgres
7cf63256a31a: Already exists
d1c43e9ce014: Pull complete
8a0f7e55dad9: Pull complete
0340d07b90bb: Pull complete
08ab1447992d: Pull complete
9aeadb38b854: Pull complete
671ab2865cd4: Pull complete
bad67c5d745a: Pull complete
6025eb076e22: Pull complete
8e1cb4da2a59: Pull complete
7c2895b4f604: Pull complete
499d1d4eb3d9: Pull complete
23a9a1509748: Pull complete
44b41f56969e: Pull complete
Digest: sha256:a4c9ad5add8a2e4c86e123bdfaf940d120c0541b782f317ab4e630ab3d391650
Status: Downloaded newer image for postgres:13
docker.io/library/postgres:13

```

```
node1@node1-vm: ~/Desktop$ docker ps
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CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
27c5d740c9a0	nginx:latest	"/docker-entrypoint..."	5 minutes ago	Up 5 minutes	80/tcp	newstack_nginx.5.u3ev0g20pi5wtpzt2v
921o7fy	nginx:latest	"/docker-entrypoint..."	5 minutes ago	Up 5 minutes	80/tcp	newstack_nginx.3.xr3xqei8n1ctggg8n
c7ee6cb51a91	nginx:latest	"/docker-entrypoint..."	5 minutes ago	Up 5 minutes	80/tcp	newstack_nginx.3.xr3xqei8n1ctggg8n
9w311xr	nginx:latest	"/docker-entrypoint..."	5 minutes ago	Up 5 minutes	80/tcp	newstack_nginx.3.xr3xqei8n1ctggg8n
bd033303b760	postgres:13	"docker-entrypoint.s..."	5 minutes ago	Up 5 minutes	5432/tcp	newstack_postgres.1.4f3mj5o149wje2w
rwvww8x8yc	redis:alpine	"docker-entrypoint.s..."	5 minutes ago	Up 5 minutes	6379/tcp	newstack_redis.1.lhamz9t4n09snewv2q
1ff7fab69476	redis:alpine	"docker-entrypoint.s..."	5 minutes ago	Up 5 minutes	6379/tcp	newstack_redis.1.lhamz9t4n09snewv2q
elqx5dw	redis:alpine	"docker-entrypoint.s..."	5 minutes ago	Up 5 minutes	6379/tcp	newstack_redis.1.lhamz9t4n09snewv2q

Node 2

```
node2@node2-vm: ~/Desktop$ docker swarm join --token SWMTKN-1-2aodz27wuz2p7gpztam2kyapjc13cpa86ygyjhnt5ut3gyy9njs-9aulrzp1jiuwwg3uyppy
ldgfv 192.168.219.134:2377
permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Post "http://%2Fvar%2Frun%2Fdo
cker.sock/v1.45/swarm/join": dial unix /var/run/docker.sock: connect: permission denied
node2@node2-vm: ~/Desktop$ sudo chmod 666 /var/run/docker.sock
node2@node2-vm: ~/Desktop$ docker swarm join --token SWMTKN-1-2aodz27wuz2p7gpztam2kyapjc13cpa86ygyjhnt5ut3gyy9njs-9aulrzp1jiuwwg3uyppy
ldgfv 192.168.219.134:2377
This node joined a swarm as a worker.
```

```
node2@node2-vm: ~/Desktop$ docker ps
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
01f9b0fd2aa7	nginx:latest	"/docker-entrypoint..."	8 minutes ago	Up 8 minutes	80/tcp	newstack_nginx.4.4ryjkw4ygbhicfo3ry
6rt3zyp	nginx:latest	"/docker-entrypoint..."	8 minutes ago	Up 8 minutes	80/tcp	newstack_nginx.2.m546hhs1eytqsc7s6l
dfc99467ff3c	nginx:latest	"/docker-entrypoint..."	8 minutes ago	Up 8 minutes	80/tcp	newstack_nginx.2.m546hhs1eytqsc7s6l
a7d0z3k	nginx:latest	"/docker-entrypoint..."	8 minutes ago	Up 8 minutes	80/tcp	newstack_nginx.2.m546hhs1eytqsc7s6l
3443d5c36f64	redis:alpine	"docker-entrypoint.s..."	8 minutes ago	Up 8 minutes	6379/tcp	newstack_redis.2.szp9bhzu3aggiwae5y
pq3itpc	redis:alpine	"docker-entrypoint.s..."	8 minutes ago	Up 8 minutes	6379/tcp	newstack_redis.2.szp9bhzu3aggiwae5y

```
node2@node2-vm: ~/Desktop$
```