□□□□□□□□ Docker

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- Tips and Trick
- □□□□□□ Docker □□ Load Balance □□□□□□□□□□□□□□□□□□□□□□ □□□□□□ Nginx Container

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1. □□□□□□□□□□□□□□□□□□□□□□□□□□ Docker

```
sudo service docker stop
```

2. □□□□□□□□□ daemon.json □□□□□□□□□□ /etc/docker

```
sudo nano /etc/docker/daemon.json
```

□□□□□□□□□□□□□□□ supnet □□□□□□□□□□□□□□□

```
{
  "default-address-pools" : [
    {
      "base" : "172.240.0.0/16",
      "size" : 24
    }
  ]
}
```

3. □□□□□□□□□□□□ docker daemon

```
sudo dockerd
```

4. □□□□□□□□□□□□□□□□

```
sudo reboot
```

□□□□□□□ subnet □□□□□□□□□□ sudo netstat -rn □□□□□□□ subnet □□□□□□□□□□□□□□ 172.17.0.0 □□□□□□ 172.240.0.0

```
uappdev@uapp:~$
uappdev@uapp:~$ sudo netstat -rn
Kernel IP routing table
Destination     Gateway         Genmask         Flags   MSS Window  irtt Iface
0.0.0.0         172.16.33.1     0.0.0.0         UG        0 0          0 ens18
172.16.33.0     0.0.0.0         255.255.255.0   U         0 0          0 ens18
172.18.0.0      0.0.0.0         255.255.0.0     U         0 0          0 br-8ee57afde46e
172.19.0.0      0.0.0.0         255.255.0.0     U         0 0          0 br-7efa10d7fa1f
172.26.0.0      0.0.0.0         255.255.0.0     U         0 0          0 br-69b550551a39
172.240.0.0     0.0.0.0         255.255.255.0   U         0 0          0 docker0
192.168.0.0     0.0.0.0         255.255.240.0   U         0 0          0 br-a1137dad0179
192.168.48.0    0.0.0.0         255.255.240.0   U         0 0          0 br-9600f9870cdb
192.168.144.0   0.0.0.0         255.255.240.0   U         0 0          0 br-178b19214119
uappdev@uapp:~$
```

Tips and Trick

□□□□□□□ container □□□□□□□□□□ sudo □□□

```
apt-get install sudo
```

□□□□□□□□□□□□ container □□□□□ user root

```
sudo docker exec -it --user root container_name /bin/bash
```

□□□□□ Docker □□ Load Balanc Nginx Container

□□□□□□□□□ Nginx

□□□□□□ default-ssl.conf □□□□□□□□□□ upstream □□□□□□□□□□□ Load balance □□□□□

```
upstream my_app {
    server app_php:80;

    keepalive 32;
}

server {
    listen 443;
    server_name yourdomain;

    location / {
        proxy_pass http://my_app/;

        proxy_http_version 1.1;
        proxy_set_header Connection "";

        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For
            $proxy_add_x_forwarded_for;
        proxy_set_header X-Forwarded-Proto $scheme;

        proxy_read_timeout 300s;
        proxy_send_timeout 300s;

        index index.php index.html index.htm;
    }
```

```
}
```

□□□□□□□□□□□□□□□□□ Docker compose

□□□□□□□□□□ docker-compose.yml □□□□□□□□□

```
services:
    app_php:
        build:
            context: php74
        image: app
        restart: always
        expose:
            - "80"
            - "443"

    nginx:
        image: nginx:1.17
        container_name: ngx
        restart: always
        ports:
            - 80:80
            - 443:443
        depends_on:
            - app_php
```

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```
version: '3'
networks:
  mynetwork:
    external: true
    name: test_mynetwork
services:
    app_php:
        build:
            context: php74
        image: app
        restart: always
```

```
        expose:
            - "80"
            - "443"
        networks:
            - mynetwork

    nginx:
        image: nginx:1.17
        container_name: ngx
        restart: always
        ports:
            - 80:80
            - 443:443
        depends_on:
            - app_php
```

□□□ Docker container □□□□□□□□□□□□□□□

□□□ docker compose □□□□□□□□□ container □□

```
sudo docker compose up -d --scale app_php=3
```

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□□□□□□□□□□□□□□□□□□□□□□ container □□□□□ Docker compose □□□□□□□□□

```
services:
    app_php:
        build:
            context: php74
        image: app
        restart: always
        deploy:
            replicas: 3
        expose:
            - "80"
            - "443"

    nginx:
        image: nginx:1.17
```

```
        container_name: ngx
        restart: always
        ports:
            - 80:80
            - 443:443
        depends_on:
            - app_php
```

□□□□□□□□□□□□□□ Load Balance

□□□□□□□□□ php □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□

```
header('Content-Type: application/json');
header('Cache-Control: no-store');

echo json_encode([
    'container' => gethostname(),
    'server_time' => date('Y-m-d H:i:s'),
    'server_ip' => $_SERVER['SERVER_ADDR'] ?? '',
]);
```

□□□□□□□□ Load balance □□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□□ Nginx □□□□□□□□□□

```
docker exec ngx nginx -t
docker exec ngx nginx -s reload
```