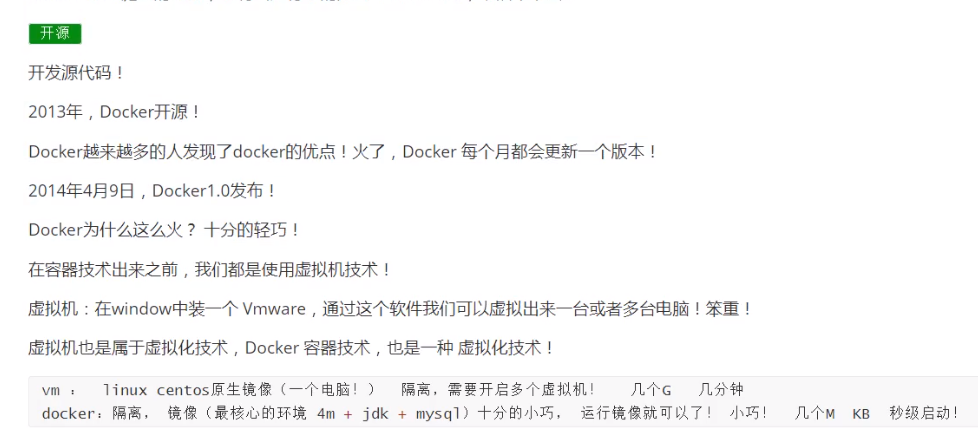
## 简介

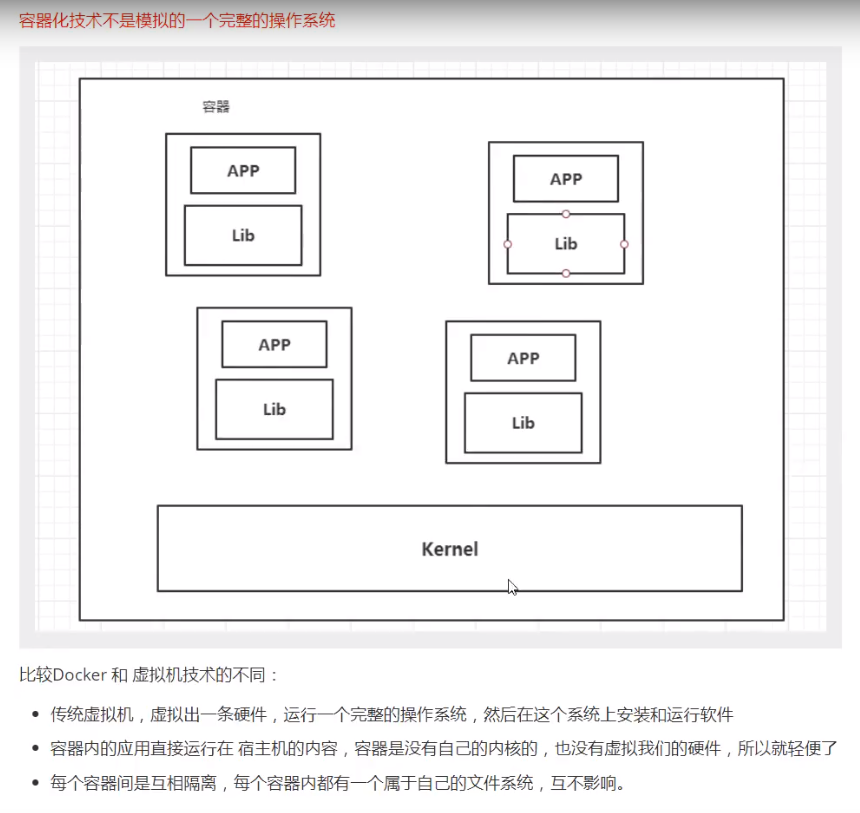
Docker官网 <https://www.docker.com/>

Docker文档 <https://docs.docker.com/get-docker/>

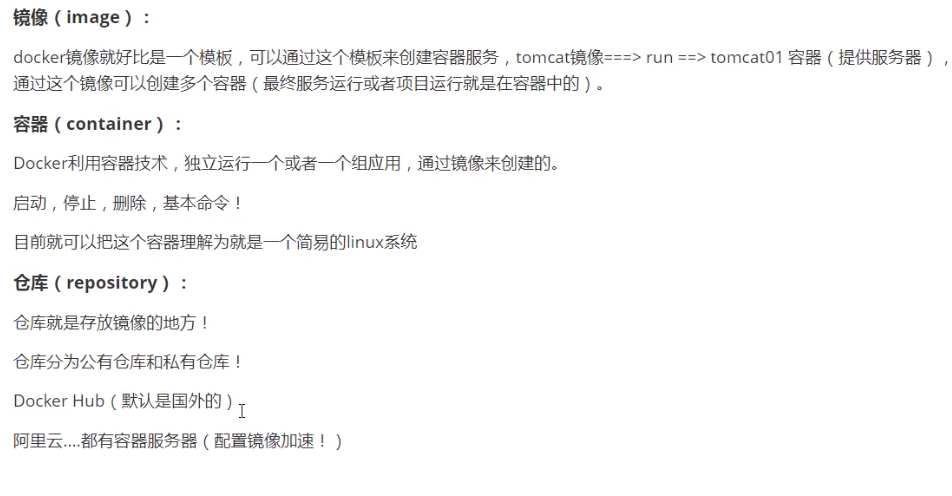
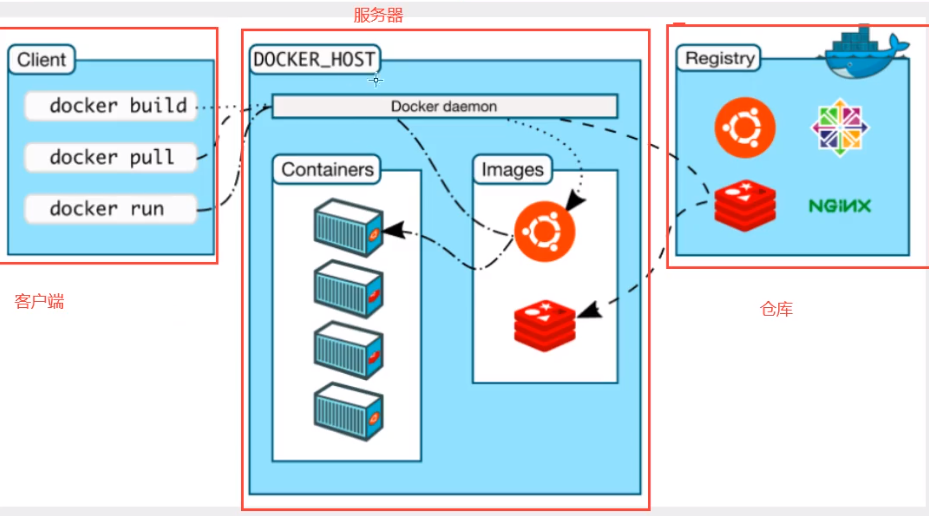
Docker发布地址 <https://hub.docker.com/> 类似github







Docker架构图



## 安装



1.卸载旧版本yum remove docker \

docker-client \

docker-client-latest \

docker-common \

docker-latest \

docker-latest-logrotate \

docker-logrotate \

docker-engine

2.  [设置Docker的存储库](https://docs.docker.com/engine/install/centos/#install-using-the-repository)并从中进行安装 yum install -y yum-utils

3. 设置存储库 ，使用阿里云的镜像，国外镜像太慢

yum-config-manager \

--add-repo \ <http://mirrors.aliyun.com/docker-ce/linux/centos/docker-ce.repo>

yum makecache fast //更新yum 或者 yum update

4. **安装DOCKER引擎** ce是社区版本

yum install docker-ce docker-ce-cli containerd.io

[**安装docker遇到：package docker-ce-3:19.03.8-3.el7.x86\_64 requires containerd.io >= 1.2.2-3, but none of the providers can be installed**](https://www.cnblogs.com/suanmiaoup/p/12772140.html)

执行 yum install docker-ce docker-ce-cli containerd.io 提示：

错误：

问题: package docker-ce-3:19.03.8-3.el7.x86\_64 requires containerd.io >= 1.2.2-3, but none of the providers can be installed

解决方法：

进入阿里云镜像地址：<https://mirrors.aliyun.com/docker-ce/linux/centos/7/x86_64/edge/Packages/>找到你想要的或者最新的containerd.io包，拼接在阿里云地址后面，

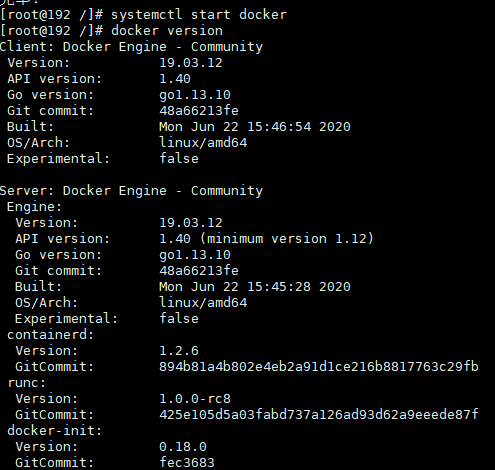
如下：

yum install -y https://mirrors.aliyun.com/docker-ce/linux/centos/7/x86\_64/edge/Packages/containerd.io-1.2.13-3.1.el7.x86\_64.rpm

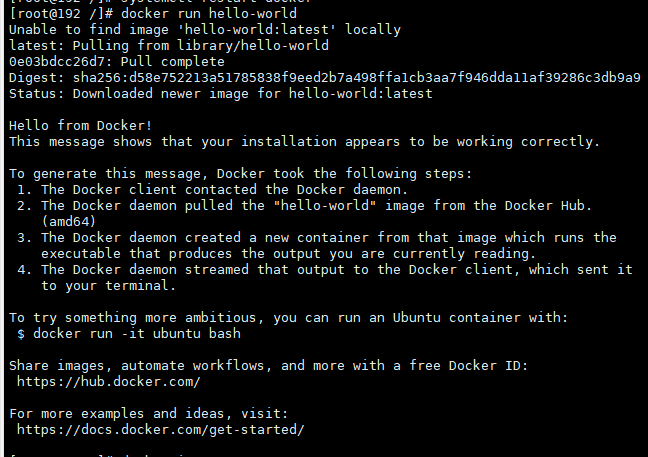
然后再执行 yum install docker-ce docker-ce-cli containerd.io 即可

5. 启动Docker systemctl start docker

6. docker version 查看是否安装成功



7. docker run hello-world



如果报错docker: Error response from daemon: Get https://registry-1.docker.io/v2/: dial tcp: lookup registry-1.docker.io on 192.168.23.2:53: read udp 192.168.23.128:50591->192.168.23.2:53: i/o timeout.

修改或新增 /etc/docker/daemon.json或者在文章后面配置自己的[配置阿里云镜像加速器](#配置阿里云镜像加速器)

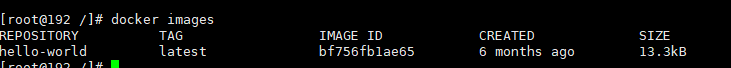
{

"registry-mirrors":["https://6kx4zyno.mirror.aliyuncs.com"]

}

sudo systemctl restart docker //重启docker服务：

8. 查看镜像

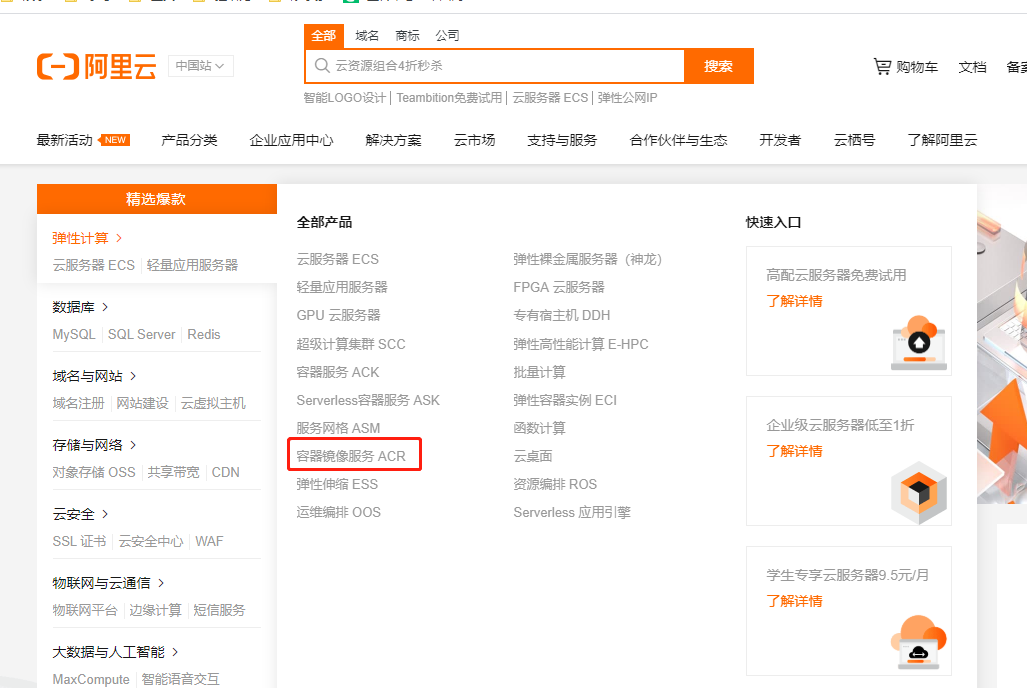


卸载docker

yum remove docker-ce docker-ce-cli containerd.io //卸载Docker Engine，CLI和Containerd软件包：

rm -rf /var/lib/docker //主机上的映像，容器，卷或自定义配置文件不会自动删除。要删除所有图像，容器和卷，必须手动删除所有已编辑的配置文件。

### 配置阿里云镜像加速器：



sudo mkdir -p /etc/docker

sudo tee /etc/docker/daemon.json <<-'EOF'

{

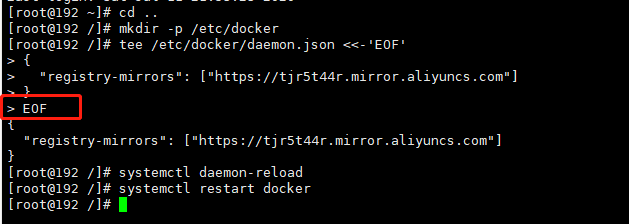
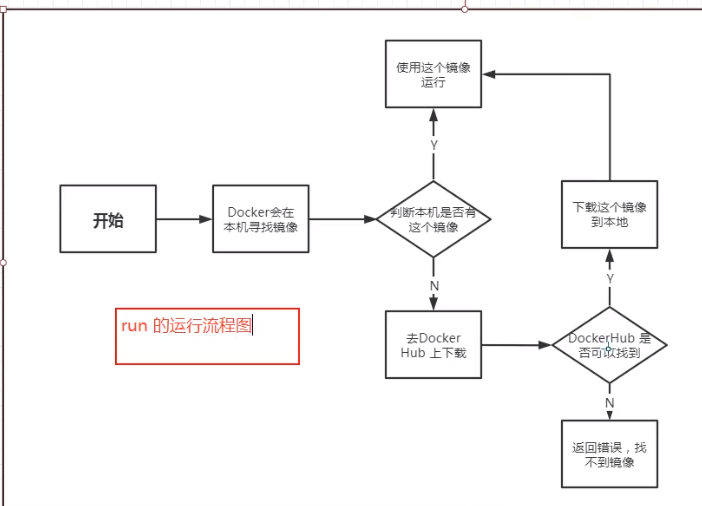
"registry-mirrors": ["https://tjr5t44r.mirror.aliyuncs.com"]

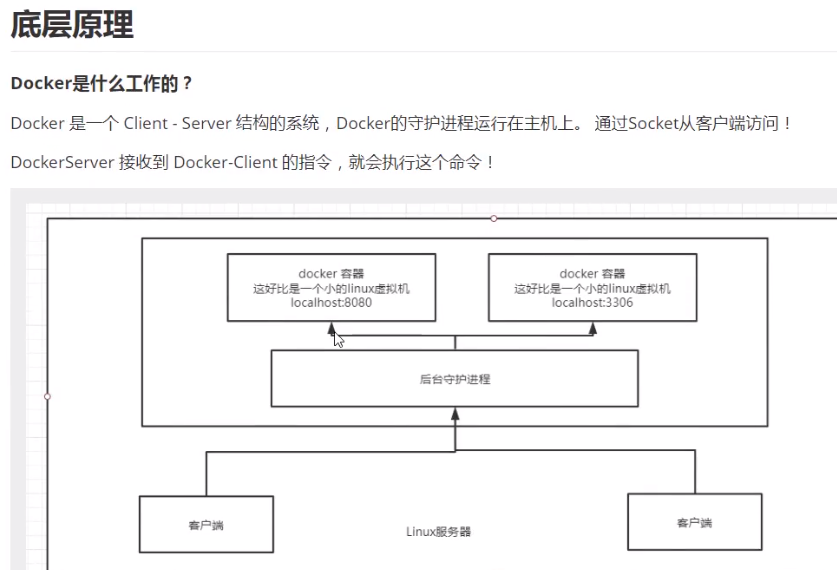
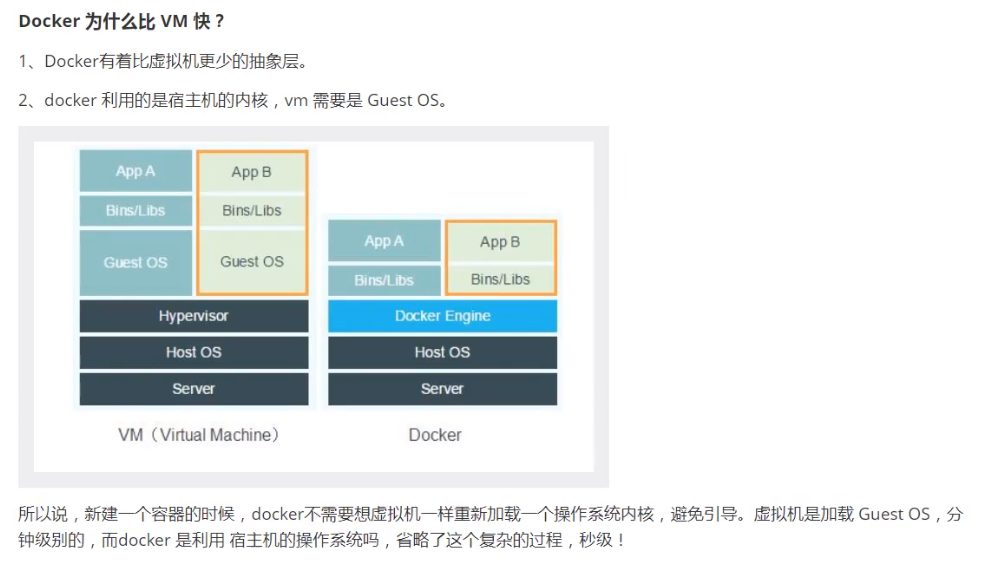
}

EOF

sudo systemctl daemon-reload

sudo systemctl restart docker

## 常用命令

### 镜像命令

<https://docs.docker.com/reference/>

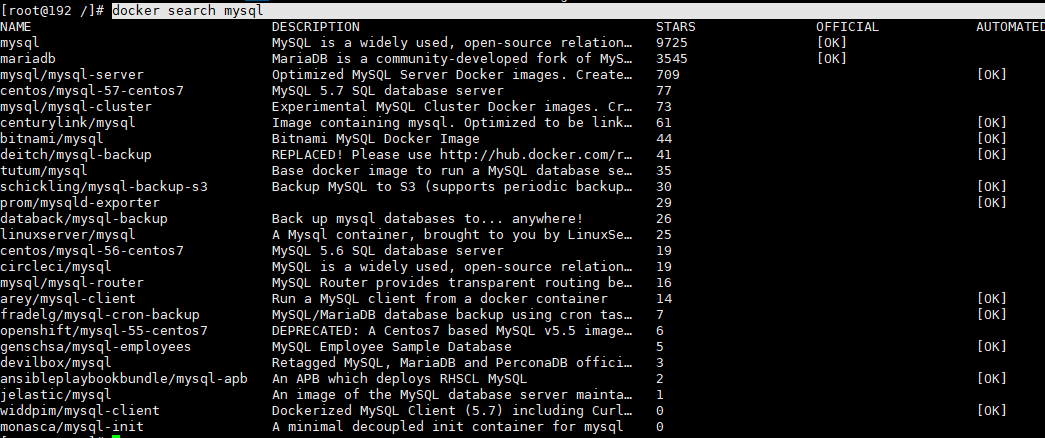
docker version 版本信息

docker info 系统信息,包括镜像和容器

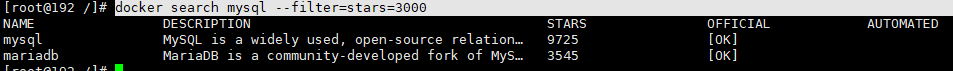
docker –help 帮助命令



docker search mysql



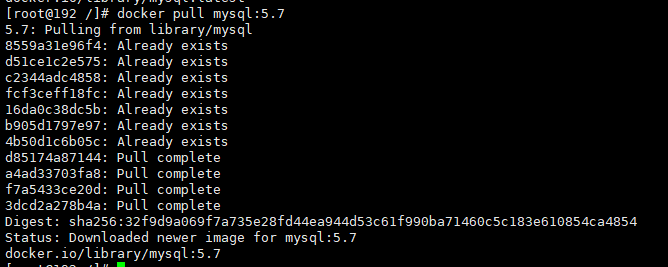
docker search mysql --filter=stars=3000 过滤stars超过3000的数据



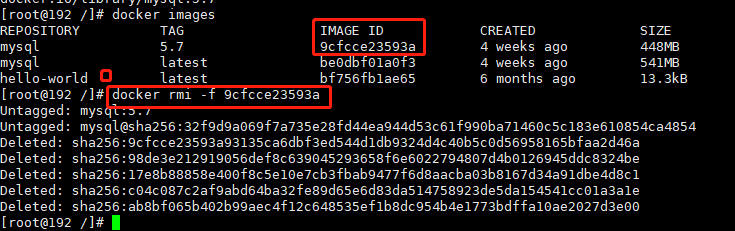
docker pull mysql [tag 参数执行版本号，不写下载最新] 下载mysql



docker pull mysql:5.7 下载指定版本号的mysql



docker rmi -f 9cfcce23593a 根据IMAGE ID 删除mysql容器(如果写多个容器id，就删除多个)

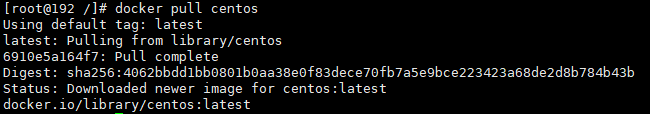


docker rmi -f $(docker images -aq) 删除全部镜像【删库跑路】

### 容器命令

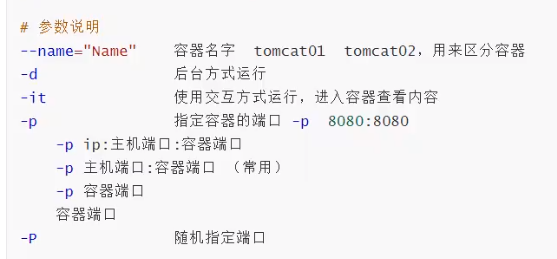
先下载镜像才能使用容器，下载一个centos

docker pull centos



新建容器并启动

docker run [可选参数] imagesid



启动并进入容器(/bin/bash),查看容器，内部就一个不完善的centos系统

[root@192 /]# docker run -it centos /bin/bash

[root@12109d8a8ebe /]# ls

bin dev etc home lib lib64 lost+found media mnt opt proc root run sbin srv sys tmp usr var

退出

[root@12109d8a8ebe /]# exit

退出但不停止容器 Ctrl+P+Q

查看正在运行的docker

[root@192 /]# docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

查看所有运行的docker包括已经删除的和停止的，-n=5(只列出最近创建的5个)

[root@192 /]# docker ps –a -n=5

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

12109d8a8ebe centos "/bin/bash" 5 minutes ago Exited (0) 2 minutes ago wizardly\_hugle

042d17b373b9 bf756fb1ae65 "/hello" 5 hours ago Exited (0) 5 hours ago admiring\_sammet

02673bacc2b2 bf756fb1ae65 "/hello" 15 hours ago Exited (0) 15 hours ago boring\_euclid

只显示编号 -q

[root@192 /]# docker ps -aq

12109d8a8ebe

042d17b373b9

02673bacc2b2

删除指定的容器，正在运行的无法删除，需要使用 rm –f参数

docker rm 12109d8a8ebe

删除全部容器两种方式

docker rm -f $(docker ps -aq)

docker ps –f –a –q|xargs docker rm

启动，停止，重启，杀死容器

docker start 容器id

docker restart 容器id

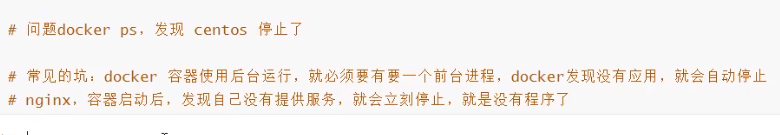
docker stop 容器id

docker kill 容器id

### 常用其他命令

后台启动容器

docker run -d centos



显示容器的日志 --tail 10(显示10条，不写显示全部)

docker logs -tf --tail 10 1ca3c4e9bc45(容器id)

查看容器内部进程信息 PID当前进程id PPID 当前进程的父进程id

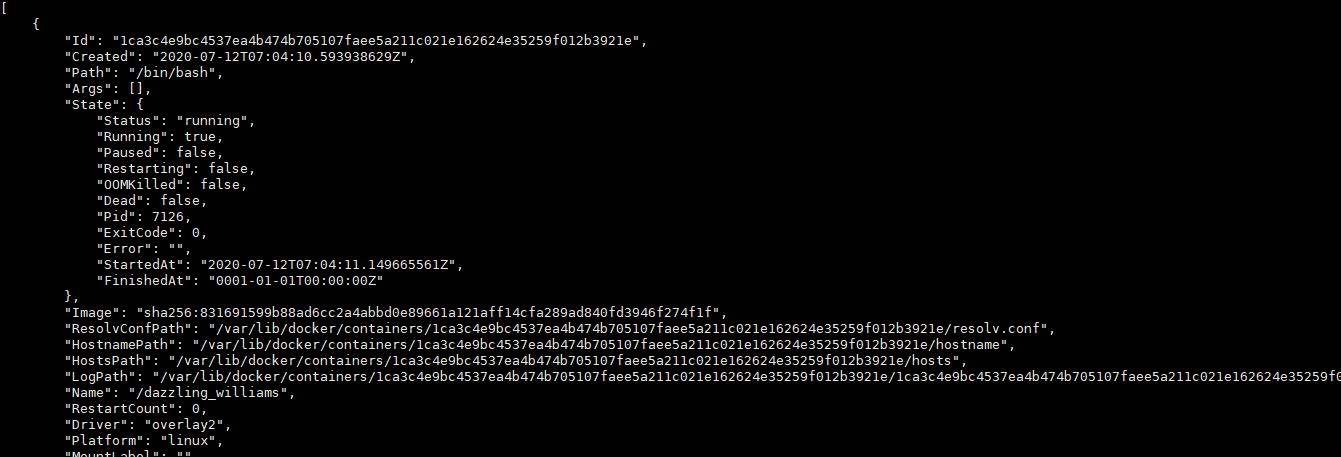
[root@192 /]# docker top 1ca3c4e9bc45

UID PID PPID C STIME TTY TIME CMD

root 7126 7110 0 03:04 pts/0 00:00:00 /bin/bash

查看容器信息

docker inspect 1ca3c4e9bc45



进入正在执行的容器

//容器通常都是后台运行的，需要进入容器，修改一些配置

方法1 docker exec 等于开启了一个新的终端(常用)

[root@192 /]# docker exec -it 1ca3c4e9bc45 /bin/bash

[root@1ca3c4e9bc45 /]# ls

bin dev etc home lib lib64 lost+found media mnt opt proc root run sbin srv sys tmp usr var

[root@1ca3c4e9bc45 /]# ps -ef

UID PID PPID C STIME TTY TIME CMD

root 1 0 0 07:04 pts/0 00:00:00 /bin/bash

root 14 0 0 11:10 pts/1 00:00:00 /bin/bash

root 28 14 0 11:12 pts/1 00:00:00 ps –ef

方法2 docker attach 进入正在执行的终端，不会启用新的进程

docker attach 1ca3c4e9bc45

容器内文件 test.java拷贝到主机 6f86e46bde1b容器id ，容器停止也可以拷贝

[root@192 home]# docker cp 6f86e46bde1b:/home/test.java /home

安装nginx ,先搜索，再下载nginx,然后运行测试 docker images, <http://192.168.23.128:3344/> 可以访问

-d 后台运行 --name 别名 -p 使用本机哪个端口号(宿主机端口) :80 容器端口号

[root@192 home]# docker run -d --name nginx01 -p 3344:80 nginx

13e199543b432aa8d2b7efaf85f43fbae5aa03757f52949b0b2ed86c6c069203

[root@192 home]# docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

13e199543b43 nginx "/docker-entrypoint.…" 5 seconds ago Up 3 seconds 0.0.0.0:3344->80/tcp nginx01

[root@192 home]# curl localhost:3344

<!DOCTYPE html>

<html>

<head>

<title>Welcome to nginx!</title>

<style>

body {

width: 35em;

margin: 0 auto;

font-family: Tahoma, Verdana, Arial, sans-serif;

}

</style>

</head>

<body>

<h1>Welcome to nginx!</h1>

<p>If you see this page, the nginx web server is successfully installed and

working. Further configuration is required.</p>

<p>For online documentation and support please refer to

<a href="http://nginx.org/">nginx.org</a>.<br/>

Commercial support is available at

<a href="http://nginx.com/">nginx.com</a>.</p>

<p><em>Thank you for using nginx.</em></p>

</body>

</html>

进入nginx 容器

[root@192 home]# docker ps

CONTAINER ID IMAGE COMMAND CREATED STATUS PORTS NAMES

13e199543b43 nginx "/docker-entrypoint.…" 7 minutes ago Up 7 minutes 0.0.0.0:3344->80/tcp nginx01

[root@192 home]# docker exec -it nginx01 /bin/bash #进入nginx 容器

root@13e199543b43:/# whereis nginx #查看nginx

nginx: /usr/sbin/nginx /usr/lib/nginx /etc/nginx /usr/share/nginx

root@13e199543b43:/# cd /etc/nginx

root@13e199543b43:/etc/nginx# ls

conf.d fastcgi\_params koi-utf koi-win mime.types modules nginx.conf scgi\_params uwsgi\_params win-utf

root@13e199543b43:/etc/nginx#