安装并配置Docker（基于Ubuntu）

> docker-compose关于配置镜像、容器的文件在：https://github.com/Java567/docker-compose

一、安装Docker

```
curl -fsSL get.docker.com -o get-docker.sh

sudo sh get-docker.sh --mirror AzureChinaCloud
```

```
root@iZbp1f81s5q44yy42hji1bZ:~# sudo sh get-docker.sh --mirror AzureChinaCloud
# Executing docker install script, commit: 3d8fe77c2c46c5b7571f94b42793905e5b3e42e4
+ sh -c apt-get update -qq >/dev/null
+ sh -c DEBIAN_FRONTEND=noninteractive apt-get install -y -qq apt-transport-https ca-certificates c
ull
+ sh -c curl -fsSL "https://mirror.azure.cn/docker-ce/linux/ubuntu/gpg" | apt-key add -qq - >/dev/n
Warning: apt-key output should not be parsed (stdout is not a terminal)
+ sh -c echo "deb [arch=amd64] https://mirror.azure.cn/docker-ce/linux/ubuntu bionic stable" > /etc
s.list.d/docker.list
+ sh -c apt-get update -qq >/dev/null
+ [ -n  ]
+ sh -c apt-get install -y -qq --no-install-recommends docker-ce >/dev/null
+ sh -c docker version
Client: Docker Engine - Community
 Version:           20.10.5
 API version:       1.41
 Go version:        go1.13.15
 Git commit:        55c4c88
 Built:             Tue Mar  2 20:18:05 2021
 OS/Arch:           linux/amd64
 Context:           default
 Experimental:      true

Server: Docker Engine - Community
```

二、验证Docker是否安装成功

```
docekr version
```

```
root@iZbp1f81s5q44yy42hji1bZ:~# docker version
Client: Docker Engine - Community
 Version:           20.10.5
 API version:       1.41
 Go version:        go1.13.15
 Git commit:        55c4c88
 Built:             Tue Mar  2 20:18:05 2021
 OS/Arch:           linux/amd64
 Context:           default
 Experimental:      true

Server: Docker Engine - Community
 Engine:
  Version:          20.10.5
  API version:      1.41 (minimum version 1.12)
  Go version:       go1.13.15
  Git commit:       363e9a8
  Built:            Tue Mar  2 20:16:00 2021
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.4.4
  GitCommit:        05f951a3781f4f2c1911b05e61c160e9c30eaa8e
 runc:
  Version:          1.0.0-rc93
  GitCommit:        12644e614e25b05da6fd08a38ffa0cfe1903fdec
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
```

三、配置Docker加速器

3.1 创建daemon.json文件

```
cd /etc/docker
ll
```

```
root@iZbp1f81s5q44yy42hji1bZ:~# cd /etc/docker
root@iZbp1f81s5q44yy42hji1bZ:/etc/docker# ll
total 12
drwxr-xr-x  2 root root 4096 Apr  3 15:25 ./
drwxr-xr-x 89 root root 4096 Apr  3 15:25 ../
-rw-------  1 root root  244 Apr  3 15:25 key.json
```

```
vim daemon.json
```

```json
1  {
2    "registry-mirrors": [
3      "https://registry.docker-cn.com"
4    ]
5  }
```

3.2 重启服务

```
sudo systemctl daemon-reload
sudo systemctl restart docker
```

四、安装配置docker-compose

4.1 ftp文件传输docker-compose （在/usr/loca/bin目录下）

4.2 改变权限 使其可用

```
chmod +x docker-compose
```

4.3 验证是否成功

```
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/bin# ll
total 11976
drwxr-xr-x  2 root root     4096 Apr  3 18:10 ./
drwxr-xr-x 13 root root     4096 Apr  3 16:20 ../
-rwxr-xr-x  1 root root      964 Jan 28 15:11 chardetect*
-rwxr-xr-x  1 root root      972 Jan 28 15:11 cloud-id*
-rwxr-xr-x  1 root root      976 Jan 28 15:11 cloud-init*
-rwxr-xr-x  1 root root     2108 Jan 28 15:11 cloud-init-per*
-rw-r--r--  1 root root 12218968 Apr  3 18:08 docker-compose
-rwxr-xr-x  1 root root     1003 Jan 28 15:11 jsondiff*
-rwxr-xr-x  1 root root     3661 Jan 28 15:11 jsonpatch*
-rwxr-xr-x  1 root root     1837 Jan 28 15:11 jsonpointer*
-rwxr-xr-x  1 root root      973 Jan 28 15:11 jsonschema*
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/bin# chmod +x docker-compose
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/bin# ll
total 11976
drwxr-xr-x  2 root root     4096 Apr  3 18:10 ./
drwxr-xr-x 13 root root     4096 Apr  3 16:20 ../
-rwxr-xr-x  1 root root      964 Jan 28 15:11 chardetect*
-rwxr-xr-x  1 root root      972 Jan 28 15:11 cloud-id*
-rwxr-xr-x  1 root root      976 Jan 28 15:11 cloud-init*
-rwxr-xr-x  1 root root     2108 Jan 28 15:11 cloud-init-per*
-rwxr-xr-x  1 root root 12218968 Apr  3 18:08 docker-compose*
-rwxr-xr-x  1 root root     1003 Jan 28 15:11 jsondiff*
-rwxr-xr-x  1 root root     3661 Jan 28 15:11 jsonpatch*
-rwxr-xr-x  1 root root     1837 Jan 28 15:11 jsonpointer*
-rwxr-xr-x  1 root root      973 Jan 28 15:11 jsonschema*
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/bin# docker-compose version
docker-compose version 1.27.4, build 40524192
docker-py version: 4.3.1
CPython version: 3.7.7
OpenSSL version: OpenSSL 1.1.0l  10 Sep 2019
```

4.4 docker-compose下载镜像和启动容器(以mysql为例)

```
version: '3.1'
services:
```

```yaml
  db:
    image: mysql:8.0.13
    restart: always
    environment:
      MYSQL_ROOT_PASSWORD: 123456
    command:
      --default-authentication-plugin=mysql_native_password
      --character-set-server=utf8mb4
      --collation-server=utf8mb4_general_ci
      --explicit_defaults_for_timestamp=true
      --lower_case_table_names=1
    ports:
      - 3306:3306
    volumes:
      - ./data:/var/lib/mysql
```

```
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/docker/mysql# ll
total 12
drwxr-xr-x 2 root root 4096 Apr  4 10:01 ./
drwxr-xr-x 7 root root 4096 Apr  3 23:39 ../
-rw-r--r-- 1 root root  510 Apr  4 10:01 docker-compose.yml
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/docker/mysql# docker-compose up -d
Creating network "mysql_default" with the default driver
Pulling db (mysql:8.0.13)...
8.0.13: Pulling from library/mysql
177e7ef0df69: Pull complete
cac25352c4c8: Pull complete
8585afabb40a: Pull complete
1e4af4996053: Pull complete
c326522894da: Pull complete
9020d6b6b171: Pull complete
55eb37ec6e5f: Pull complete
37f3f3d72fbd: Pull complete
03f098d64268: Pull complete
46a52a54cfe9: Pull complete
202bc662895d: Pull complete
46014f07b258: Pull complete
Digest: sha256:196c04e1944c5e4ea3ab86ae5f78f697cf18ee43865f25e334a6ffb1dbea81e6
Status: Downloaded newer image for mysql:8.0.13
```

```
root@iZbp1f81s5q44yy42hji1bZ:/usr/local/docker/mysql# docker ps
CONTAINER ID   IMAGE          COMMAND               CREATED        STATUS        PORTS                              NAMES
5faedc9df278   mysql:8.0.13   "docker-entrypoint.s…" 20 minutes ago Up 20 minutes 0.0.0.0:3306->3306/tcp, 33060/tcp  mysql_db_1
```

4.5 相关指令

```
#解决vim复制粘贴导致多行出现#号
:set paste

#docker-compose后台启动（在yml目录下）
docker-compose up -d

#docker-compose停止并删除容器（在yml目录下）
docker-compose down

#查看docker镜像
docker images

#强制删除docker镜像
docker rmi -f 镜像名称|镜像id
```

```
#查看docker容器
docker ps

#强制删除docker容器
docker rmi -f 容器名称|容器id
```