24、Docker Compose实战

1、大纲步骤

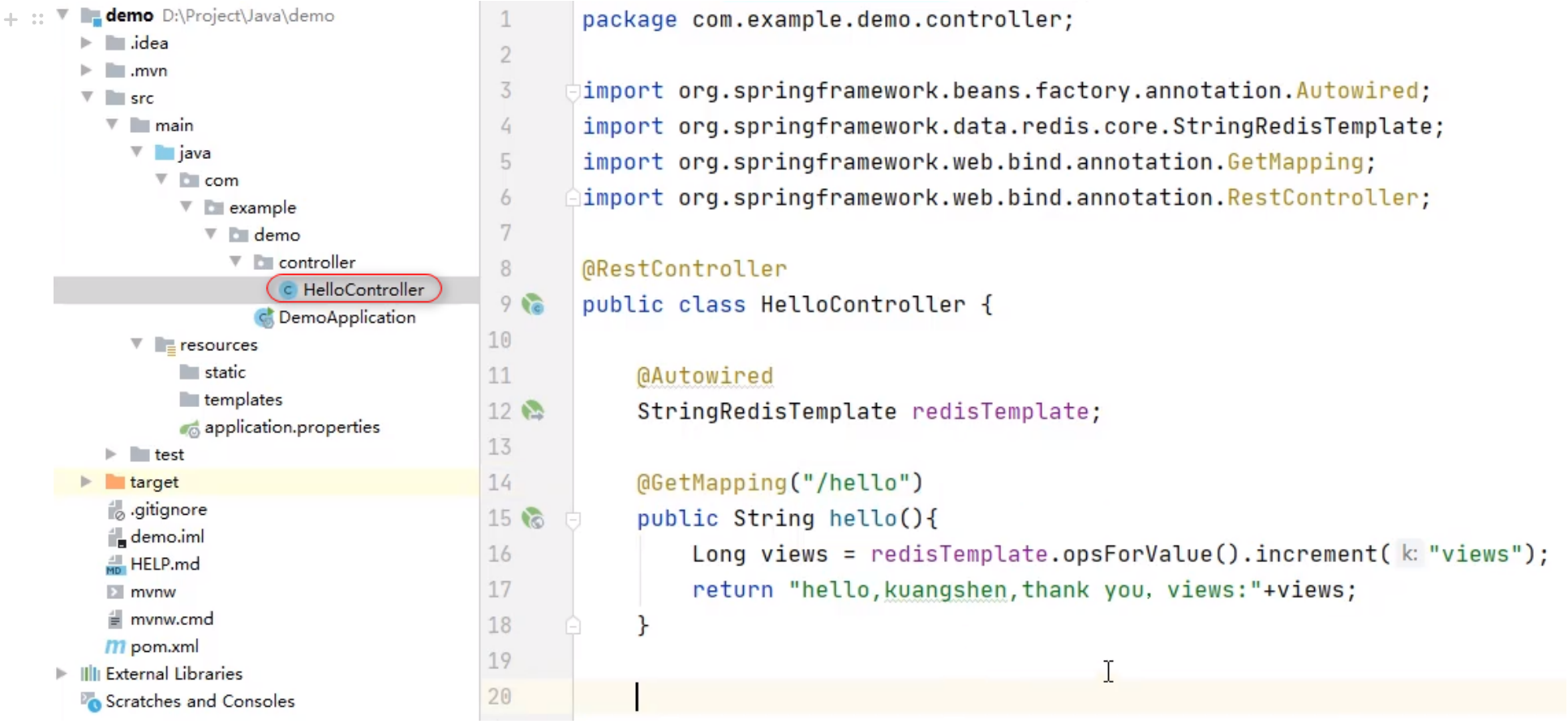
1、编写项目微服务

2、dockerfile 构建镜像

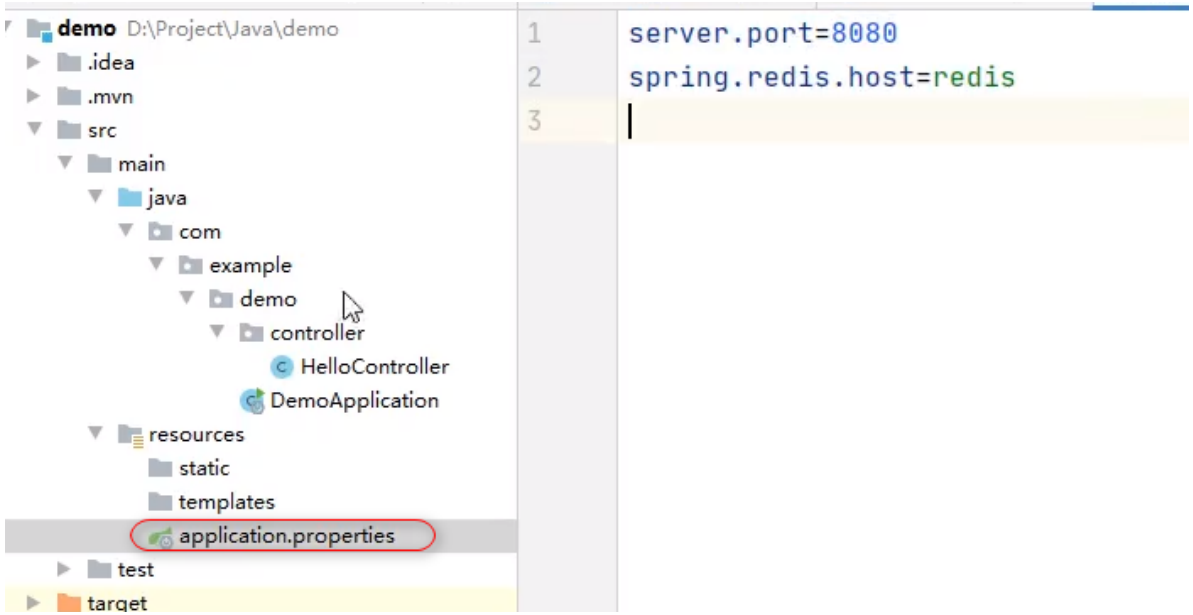
3、docker-compose.yaml 编排项目

4、丢到服务器 docker-compose up

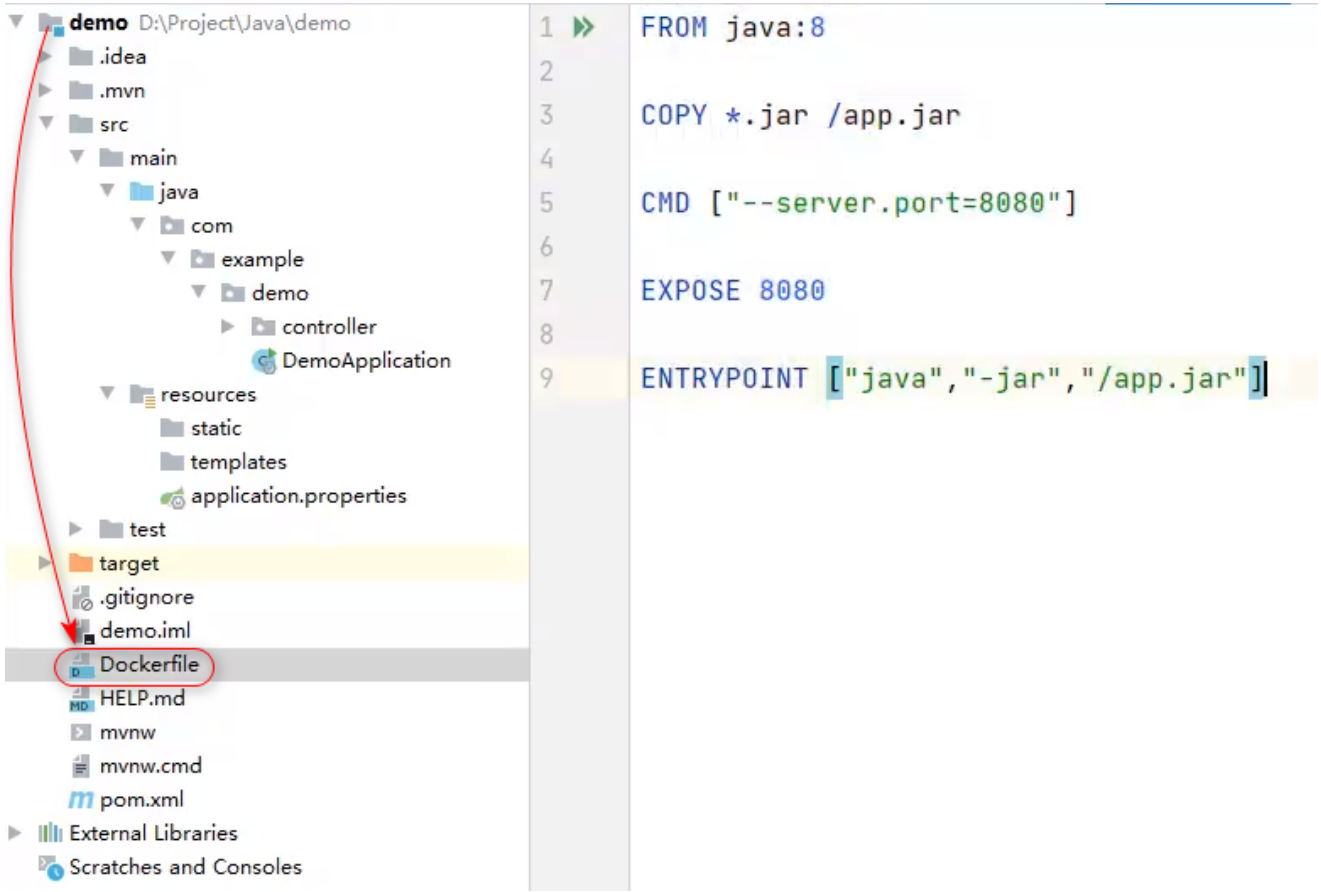
2、代码



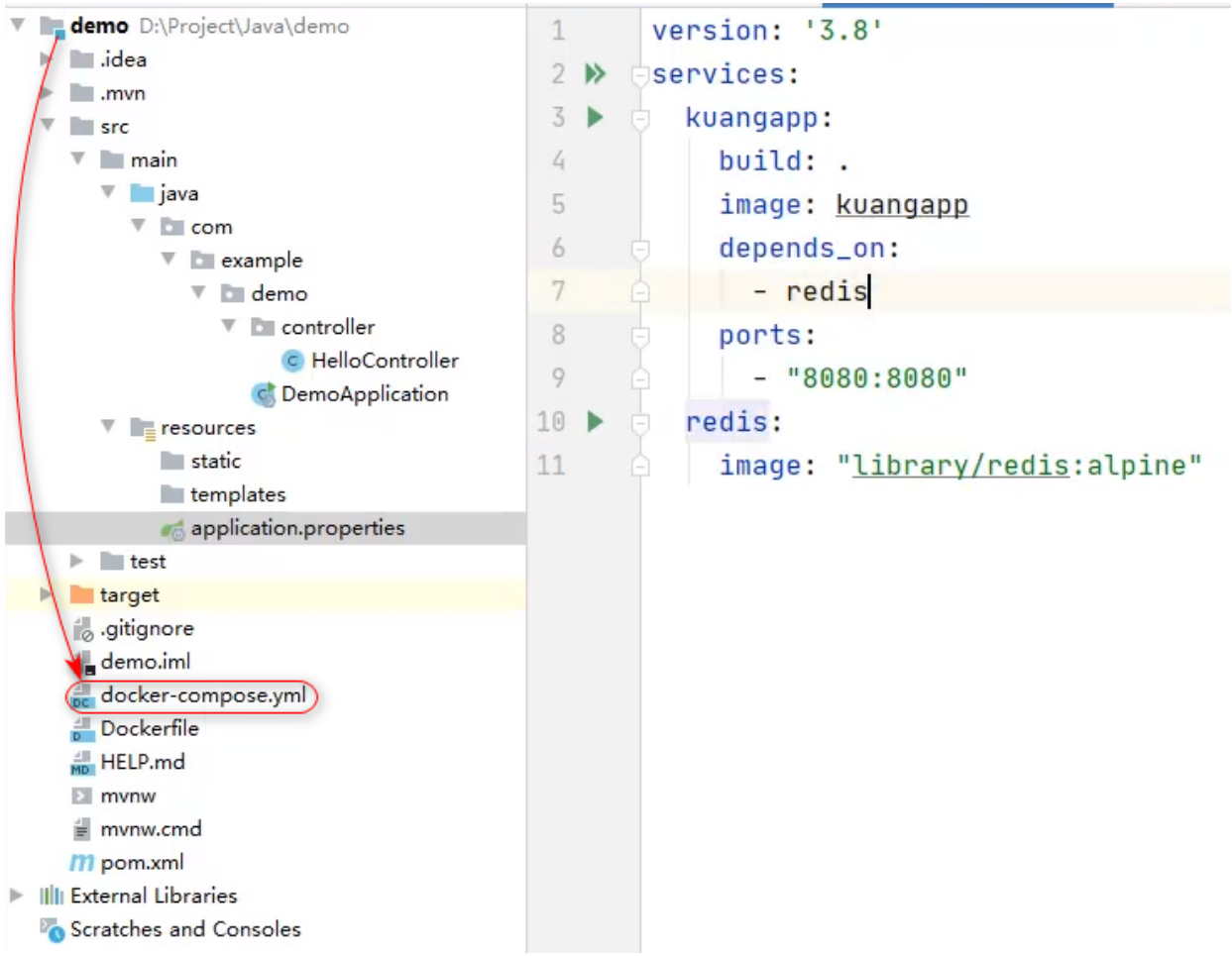
3、application.properties



3、Dockerfile文件



4、docker-compose.yml文件



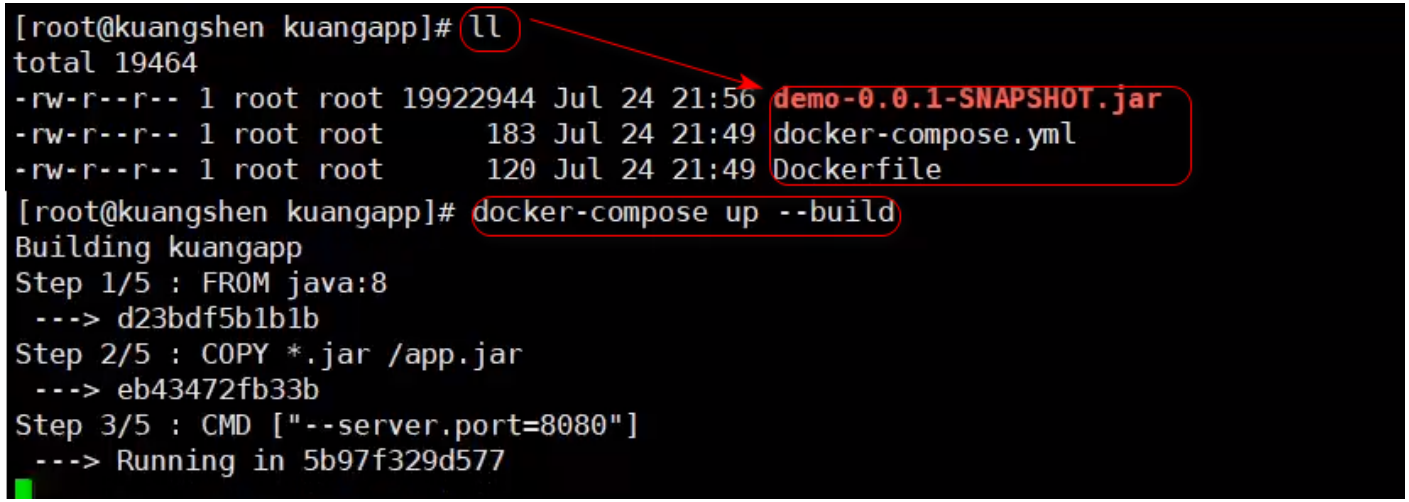
5、pom文件，然后package打包

```xml
<plugin>
    <groupId>org.springframework.boot</g
    <artifactId>spring-boot-maven-plugin
    <executions>
        <execution>
            <goals>
                <goal>repackage</goal>
            </goals>
        </execution>
    </executions>
</plugin>
```

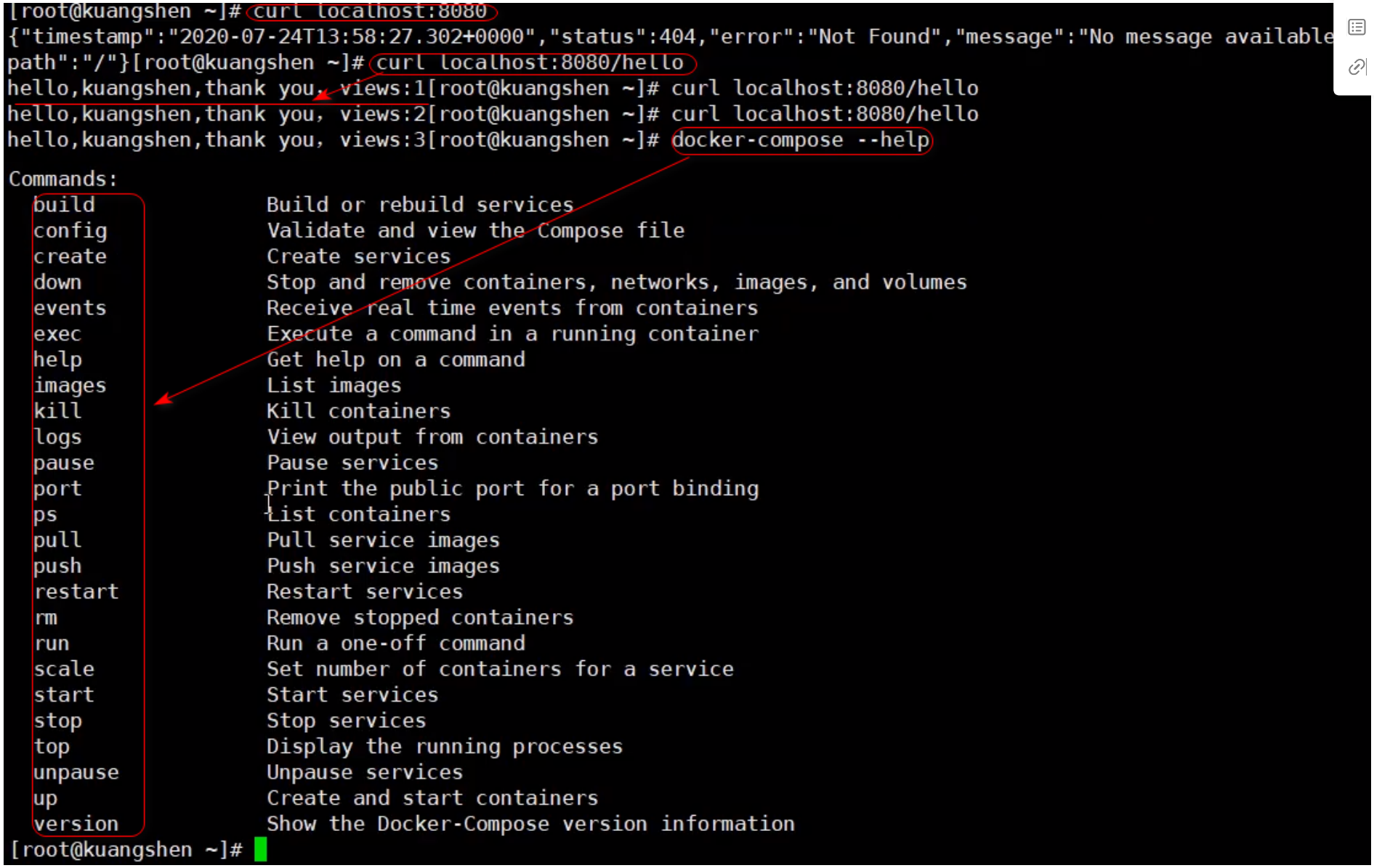
6、将打好的jar包，Dockerfile文件，docker-compose.yml通过ftp都上传到linux的/home/kuangapp目录下

7、通过docker-compose up命令，可以一键构建运行镜像，创建出容器

- docker-compose up -d --build   #重新构建镜像，运行镜像，创建出容器（后端启动）


[root@kuangshen kuangapp]# ll
total 19464
-rw-r--r-- 1 root root 19922944 Jul 24 21:56 demo-0.0.1-SNAPSHOT.jar
-rw-r--r-- 1 root root 183 Jul 24 21:49 docker-compose.yml
-rw-r--r-- 1 root root 120 Jul 24 21:49 Dockerfile
[root@kuangshen kuangapp]# docker-compose up --build
Building kuangapp
Step 1/5 : FROM java:8
---> d23bdf5b1b1b
Step 2/5 : COPY *.jar /app.jar
---> eb43472fb33b
Step 3/5 : CMD ["--server.port=8080"]
---> Running in 5b97f329d577

8、测试访问


[root@kuangshen ~]# curl localhost:8080
{"timestamp":"2020-07-24T13:58:27.302+0000","status":404,"error":"Not Found","message":"No message available
path":"/"}[root@kuangshen ~]# curl localhost:8080/hello
hello,kuangshen,thank you, views:1[root@kuangshen ~]# curl localhost:8080/hello
hello,kuangshen,thank you, views:2[root@kuangshen ~]# curl localhost:8080/hello
hello,kuangshen,thank you, views:3[root@kuangshen ~]# docker-compose --help
Commands:
build Build or rebuild services
config Validate and view the Compose file
create Create services
down Stop and remove containers, networks, images, and volumes
events Receive real time events from containers
exec Execute a command in a running container
help Get help on a command
images List images
kill Kill containers
logs View output from containers
pause Pause services
port Print the public port for a port binding
ps List containers
pull Pull service images
push Push service images
restart Restart services
rm Remove stopped containers
run Run a one-off command
scale Set number of containers for a service
start Start services
stop Stop services
top Display the running processes
unpause Unpause services
up Create and start containers
version Show the Docker-Compose version information
[root@kuangshen ~]#

9、小结

未来项目只要有 docker-compose 文件。 按照这个规则，启动编排容器。！

公司： docker-compose。 直接启动。

网上开源项目： docker-compose 一键搞定。

10、自己项目的实战

```
[lizinan@iz2ze7g9h65aj7fw098uctz coral]$ pwd
/docker/coral
[lizinan@iz2ze7g9h65aj7fw098uctz coral]$ ll
total 32
drwxr-xr-x 5 lizinan dev 4096 Dec 13 11:29 coral-bms-parent
drwxr-xr-x 4 lizinan dev 4096 Feb 26 15:38 coral-ccts-parent
drwxr-xr-x 7 lizinan dev 4096 Feb 24 19:50 coral-nct-parent
-rw-r--r-- 1 lizinan dev 4800 Mar 11 15:21 docker-compose.yml
-rw-r--r-- 1 lizinan dev  482 Nov 17 10:51 README.md
drwxr-xr-x 8 lizinan dev 4096 Mar 10 09:57 scm-express
drwxr-xr-x 8 lizinan dev 4096 Feb 17 12:49 sp-parent
[lizinan@iz2ze7g9h65aj7fw098uctz coral]$
```

docker-compose.yml 5 KB

再切换到/docker/coral/coral-nct-parent工程目录下

```
[lizinan@iz2ze7g9h65aj7fw098uctz coral]$ cd coral-nct-parent/
[lizinan@iz2ze7g9h65aj7fw098uctz coral-nct-parent]$ ll
total 32
drwxr-xr-x 4 lizinan dev 4096 Mar 11 17:38 blade-gateway
drwxr-xr-x 4 lizinan dev 4096 Mar 11 17:38 nct-common
drwxr-xr-x 5 lizinan dev 4096 Mar  2 13:10 nct-service
drwxr-xr-x 4 lizinan dev 4096 Feb 24 15:47 nct-service-api
-rw-r--r-- 1 lizinan dev 8776 Feb 24 17:50 pom.xml
-rw-r--r-- 1 lizinan dev  769 Feb 24 15:47 README.md
[lizinan@iz2ze7g9h65aj7fw098uctz coral-nct-parent]$
```

- 执行如下命令

```
git pull
mvn clean install dockerfile:build dockerfile:tag dockerfile:push -Dmaven.test.skip=true
```

- 再切换到使用/docker/coral目录下，因为所有工程都在此目录下，使用docker-compose进行运行所有需要的镜像

```
[lizinan@iz2ze7g9h65aj7fw098uctz coral]$ ll
total 32
drwxr-xr-x 5 lizinan dev 4096 Dec 13 11:29 coral-bms-parent
drwxr-xr-x 4 lizinan dev 4096 Feb 26 15:38 coral-ccts-parent
drwxr-xr-x 7 lizinan dev 4096 Feb 24 19:50 coral-nct-parent
-rw-r--r-- 1 lizinan dev 4800 Mar 11 15:21 docker-compose.yml
-rw-r--r-- 1 lizinan dev  482 Nov 17 10:51 README.md
drwxr-xr-x 8 lizinan dev 4096 Mar 10 09:57 scm-express
drwxr-xr-x 8 lizinan dev 4096 Feb 17 12:49 sp-parent
[lizinan@iz2ze7g9h65aj7fw098uctz coral]$
```

```
docker-compose up -d #构建、运行所有镜像
docker-compose up -d  nct-wlhy #构建、运行某个nct-wlhy镜像
docker-compose up -d --build nct-wlhy #重新构建、运行nct-wlhy镜像
docker logs -f --tail 10 nct-wlhy-01 #查看运行中的nct-wlhy-01容器
```