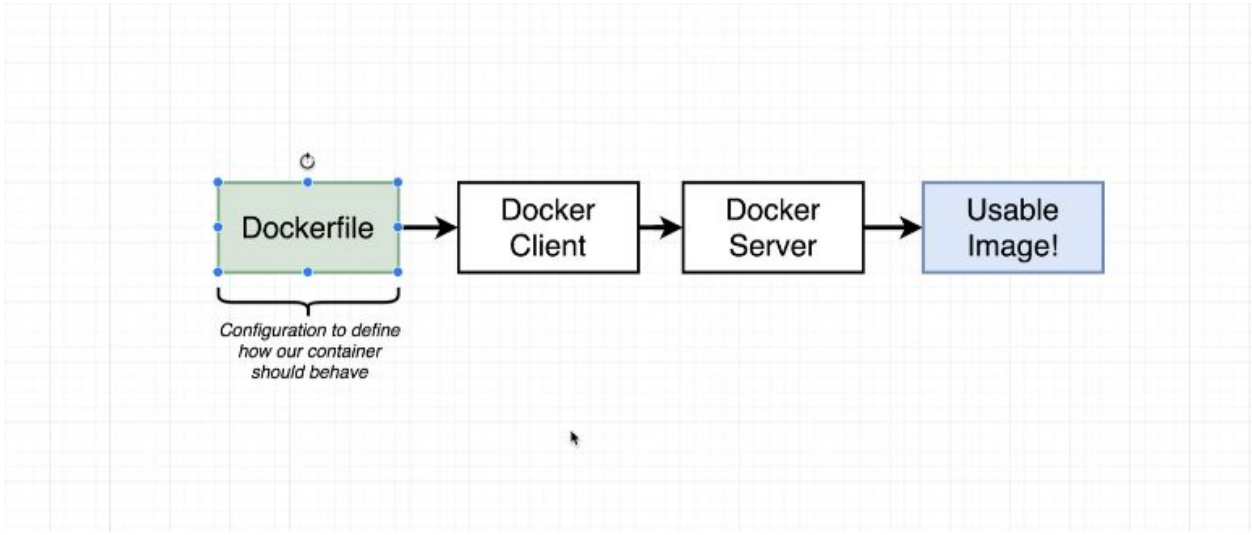
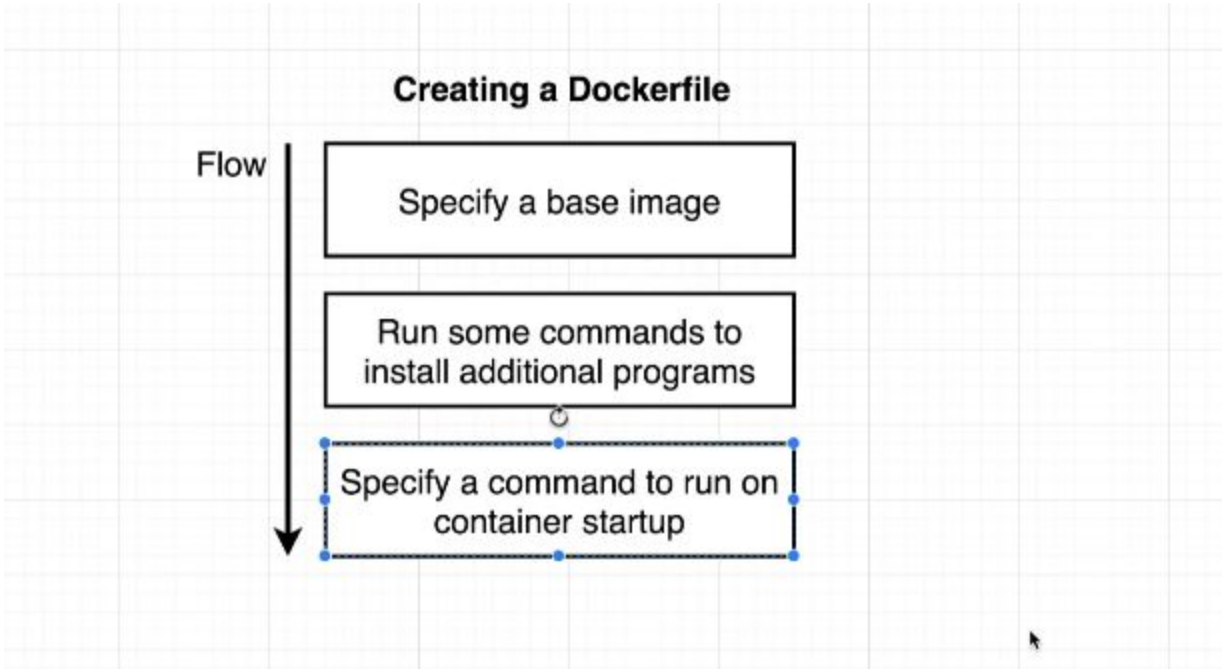
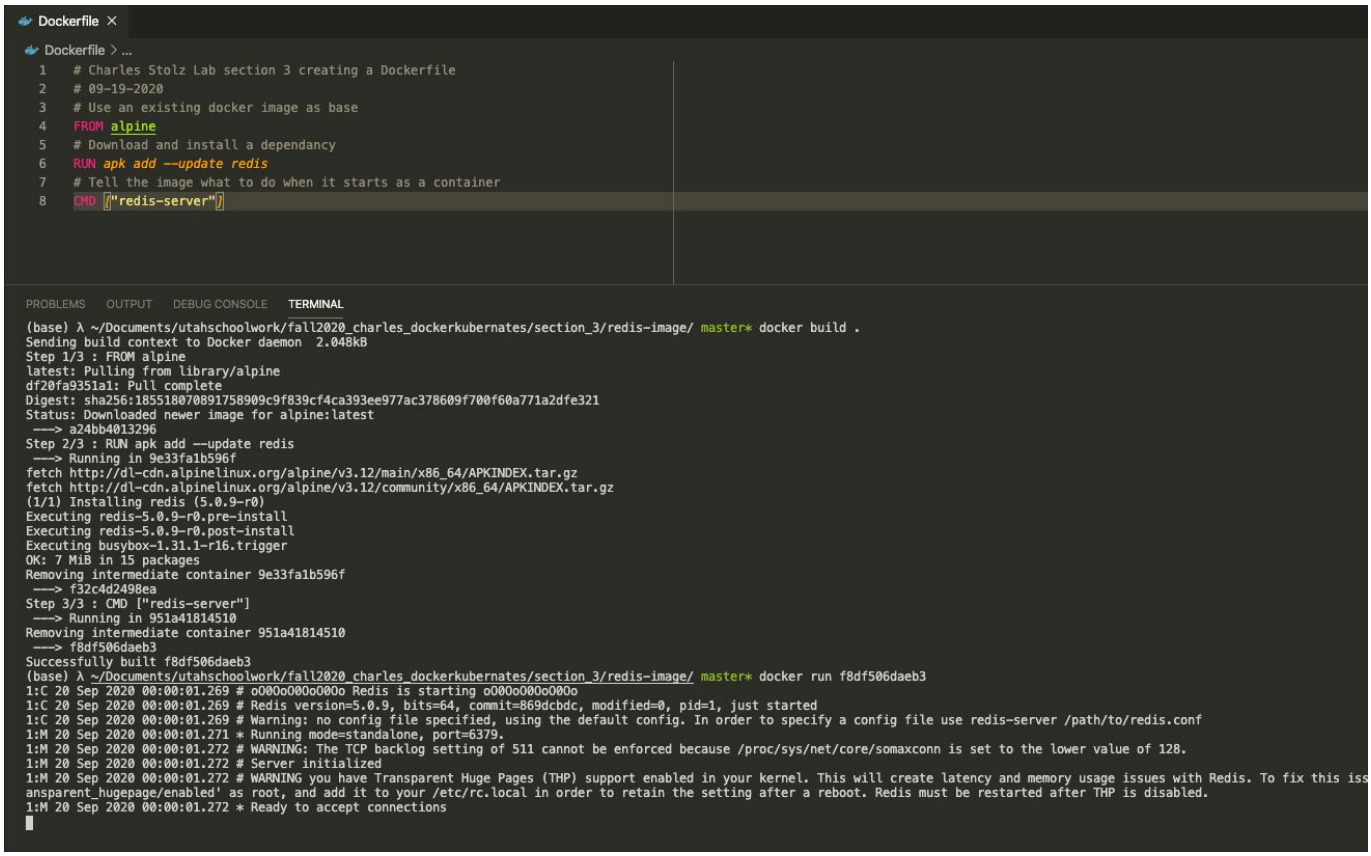
Creating a Dockerfile

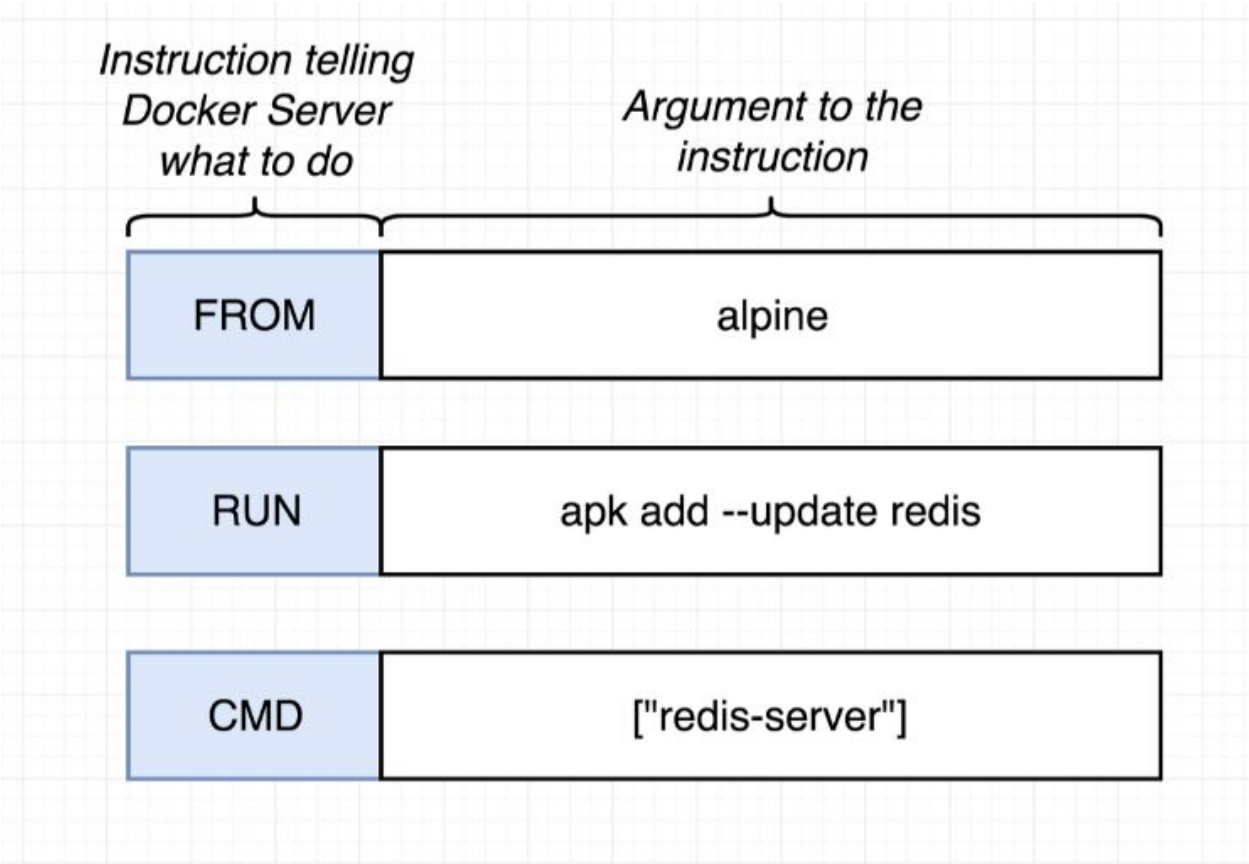




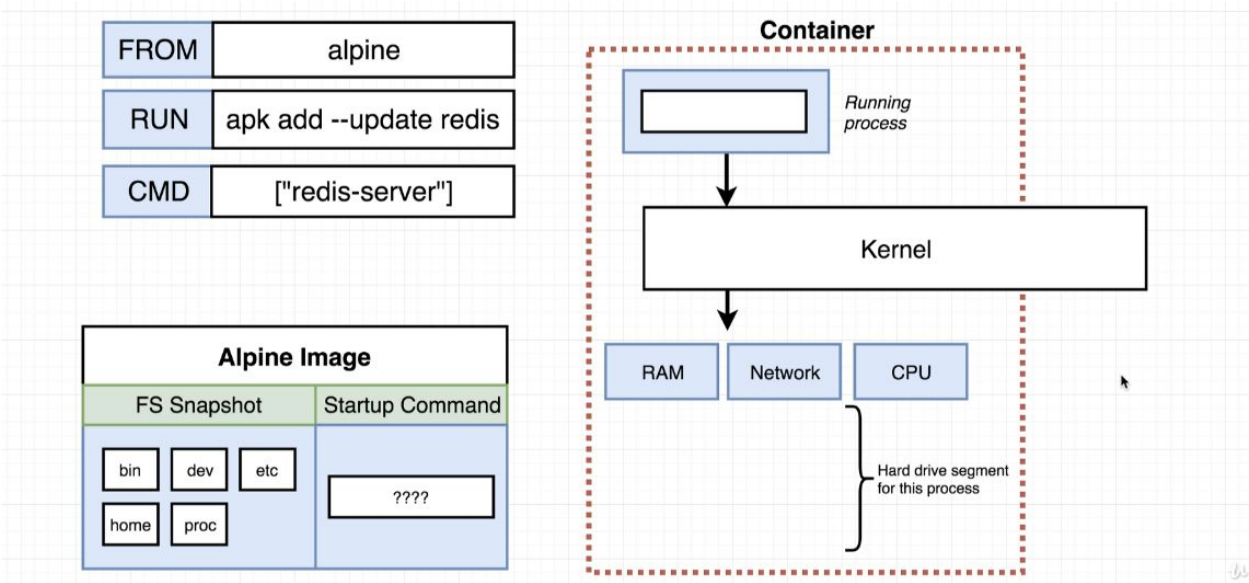
Created a Dockerfile with Visual Studio Code



The three instructions used by the dockerfile



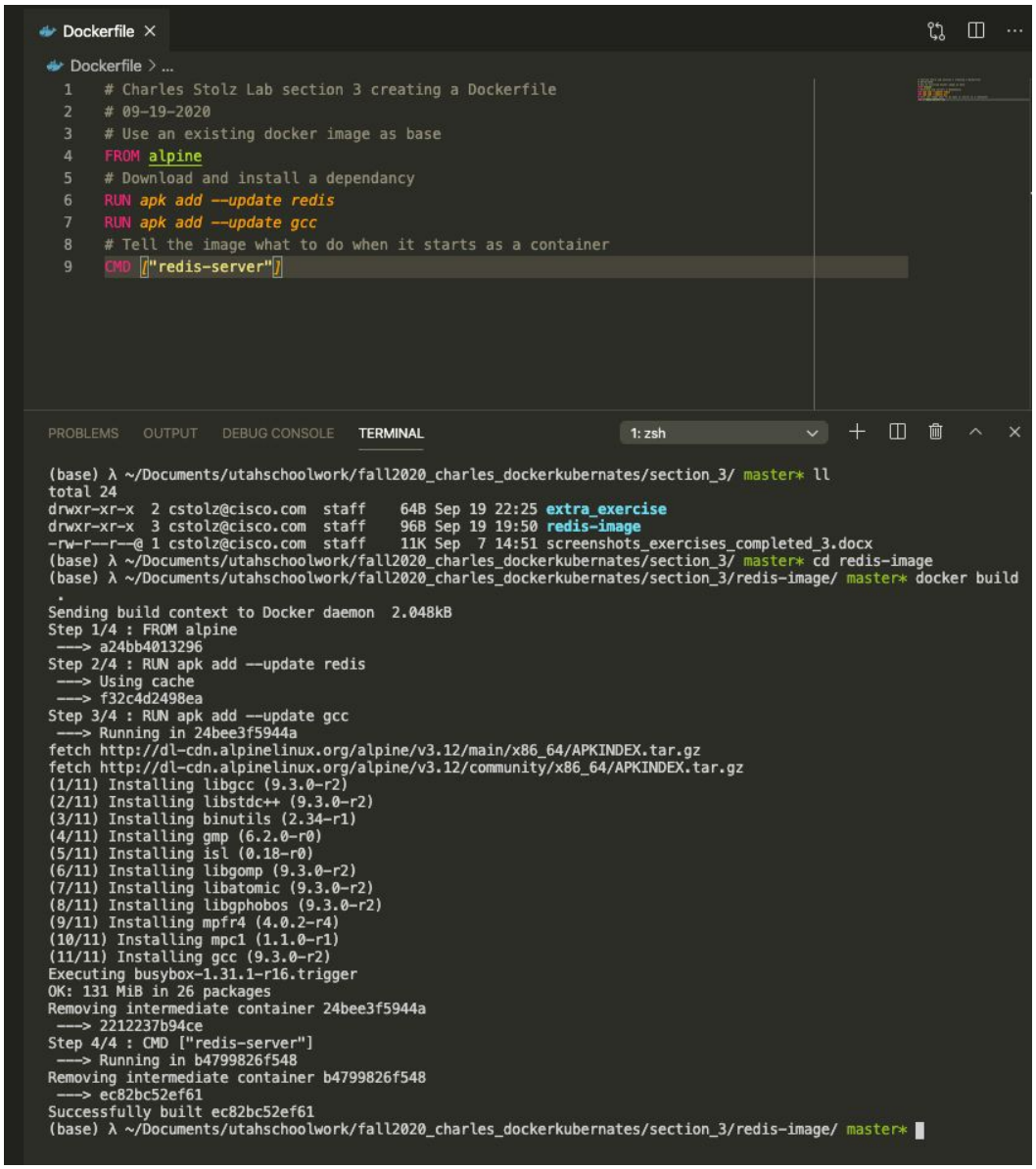
The docker build command was used to create an image.



The docker image created is f8df506daeb3

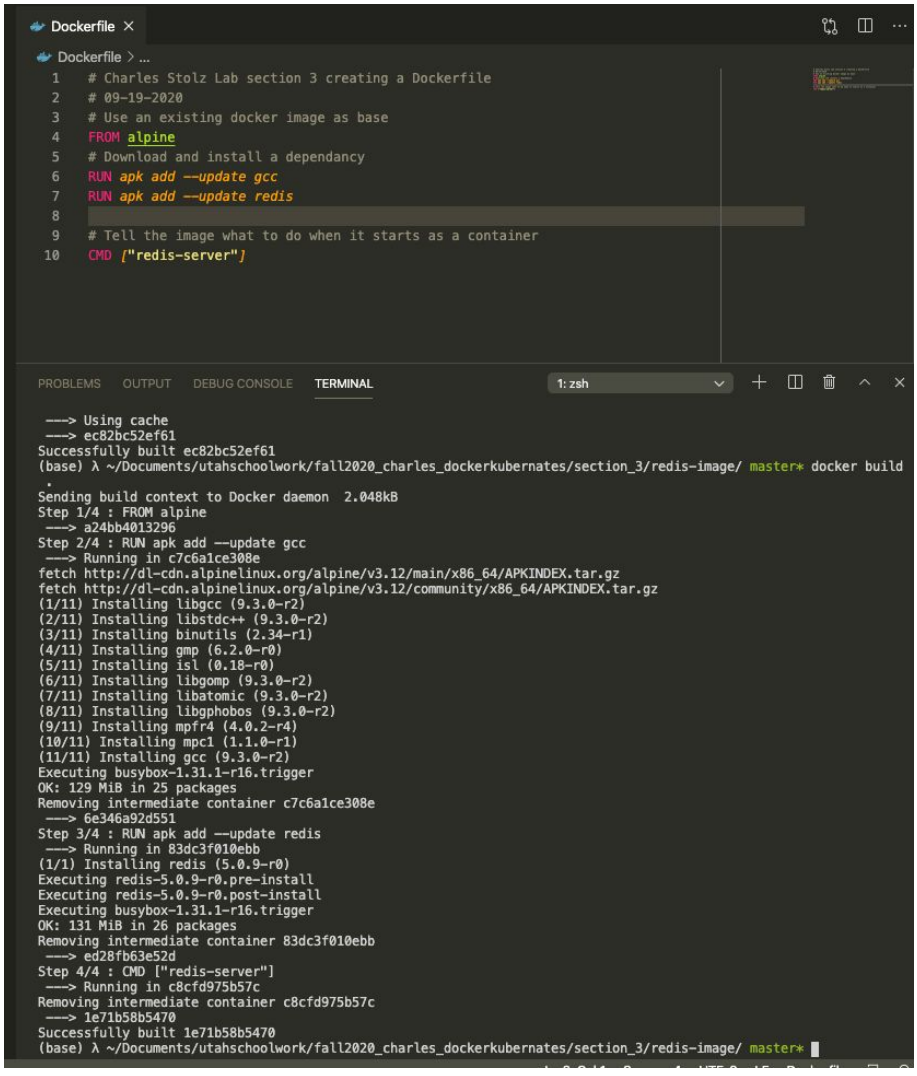
```
(base) λ ~/Documents/utahschoolwork/fall2020_charles_dockerkubernates/section_3/redis-image/ master* docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
<none>              <none>              f8df506daeb3        50 minutes ago      8.74MB
redis               latest              41de2cc0b30e        2 weeks ago         104MB
busybox             latest              edabd795951a        2 weeks ago         1.22MB
alpine              latest              a24bb4013296        3 months ago        5.57MB
hello-world         latest              bf756fb1ae65        8 months ago        13.3kB
(base) λ ~/Documents/utahschoolwork/fall2020_charles_dockerkubernates/section_3/redis-image/ master*
```

Creating a new container adding gcc package

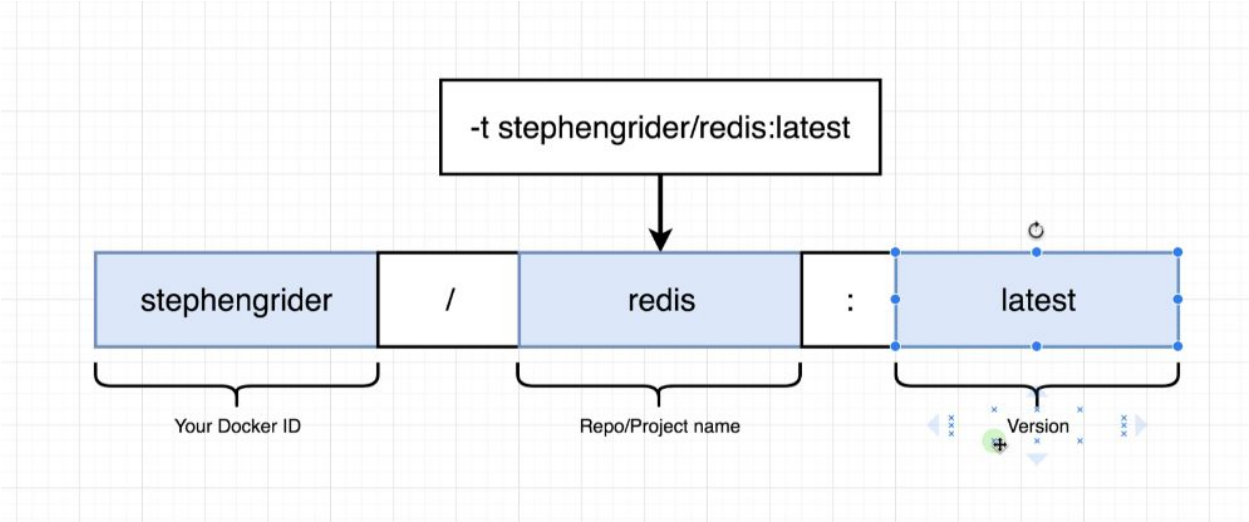


Attempted to run again and no changes since it pulled from the cache file.

Moved gcc to change order of operations this caused the image to need to be totally rebuilt.



Create Docker project with name (below is the naming convention)



Created Image and tagged image

```
(base) λ ~/Documents/utahschoolwork/fall2020_charles_dockerkubernates/section_3/redis-image/ master* docker build
 -t rtikes/redis:latest .
Sending build context to Docker daemon  2.048kB
Step 1/4 : FROM alpine
 ---> a24bb4013296
Step 2/4 : RUN apk add --update gcc
 ---> Using cache
 ---> 6e346a92d551
Step 3/4 : RUN apk add --update redis
 ---> Using cache
 ---> ed28fb63e52d
Step 4/4 : CMD ["redis-server"]
 ---> Using cache
 ---> 1e71b58b5470
Successfully built 1e71b58b5470
Successfully tagged rtikes/redis:latest
(base) λ ~/Documents/utahschoolwork/fall2020_charles_dockerkubernates/section_3/redis-image/ master* docker run r
tikes/redis
1:C 20 Sep 2020 03:03:57.390 # oO0OoO0OoO0Oo Redis is starting oO0OoO0OoO0Oo
1:C 20 Sep 2020 03:03:57.390 # Redis version=5.0.9, bits=64, commit=869dcbdc, modified=0, pid=1, just started
1:C 20 Sep 2020 03:03:57.390 # Warning: no config file specified, using the default config. In order to specify a
 config file use redis-server /path/to/redis.conf
1:M 20 Sep 2020 03:03:57.392 * Running mode=standalone, port=6379.
1:M 20 Sep 2020 03:03:57.392 # WARNING: The TCP backlog setting of 511 cannot be enforced because /proc/sys/net/c
ore/somaxconn is set to the lower value of 128.
1:M 20 Sep 2020 03:03:57.392 # Server initialized
1:M 20 Sep 2020 03:03:57.392 # WARNING you have Transparent Huge Pages (THP) support enabled in your kernel. This
 will create latency and memory usage issues with Redis. To fix this issue run the command 'echo never > /sys/ker
nel/mm/transparent_hugepage/enabled' as root, and add it to your /etc/rc.local in order to retain the setting aft
er a reboot. Redis must be restarted after THP is disabled.
1:M 20 Sep 2020 03:03:57.393 * Ready to accept connections
```

Created new image from running container

```
(base) λ ~/Documents/utahschoolwork/fall2020_charles_dockerkubernates/section_3/redis-image/ master* docker ps
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS               NAMES
cb670aa82504        alpine              "sh"                40 seconds ago      Up 39 seconds                           infallible_c
handrasekhar
(base) λ ~/Documents/utahschoolwork/fall2020_charles_dockerkubernates/section_3/redis-image/ master* docker commit -c 'CMD ["redit-s
erver"]' cb670aa82504
sha256:9e3b7bdc282c343e12c24346842d2cec7d97306067e47a20d06640c0d706db6c
```