

Experiment 9

Roll no: R171218009

AIM: Docker ignore

To prevent sensitive files or directories from being included by mistake in images, you can add a file named *.dockerignore*.

View the Dockerfile

```
$ cat Dockerfile
FROM alpine
ADD . /app
COPY cmd.sh /cmd.sh
CMD ["sh", "-c", "/cmd.sh"]
$
```

Build the image

```
$ docker build -t password .
Sending build context to Docker daemon 4.096kB
Step 1/4 : FROM alpine
----> 11cd0b38bc3c
Step 2/4 : ADD . /app
----> 10010dfe98bb
Step 3/4 : COPY cmd.sh /cmd.sh
----> 0ff3423885f2
Step 4/4 : CMD ["sh", "-c", "/cmd.sh"]
----> Running in bf623e80a200
Removing intermediate container bf623e80a200
----> 0b5646a5f1b3
Successfully built 0b5646a5f1b3
Successfully tagged password:latest
```

View output

```
$ docker run password ls /app
Dockerfile
cmd.sh
passwords.txt
$
```

include passwords.txt in our *.dockerignore* file and ensure that it didn't accidentally end up in a container

```
$ echo passwords.txt >> .dockerignore
$
```

Build image

```
$ docker build -t nopassword .
Sending build context to Docker daemon 4.096kB
Step 1/4 : FROM alpine
---> 11cd0b38bc3c
Step 2/4 : ADD . /app
---> 13af139baefb
Step 3/4 : COPY cmd.sh /cmd.sh
---> 3b0249813c1a
Step 4/4 : CMD ["sh", "-c", "/cmd.sh"]
---> Running in 16cb7dfb070a
Removing intermediate container 16cb7dfb070a
---> 1bd8dc7c9daf
Successfully built 1bd8dc7c9daf
Successfully tagged nopassword:latest
```

View output

```
$ docker run nopassword ls /app
Dockerfile
cmd.sh
```

.dockerignore file can also be used to improve the build time of images

In the environment, a 100M temporary file has been created. This file is never used by the *Dockerfile*. When you execute a build command, Docker sends the entire path contents to the Engine for it to calculate which files to include. As a result sending the 100M file is unrequired and creates a slower build.

```
$ docker build -t large-file-context .
Sending build context to Docker daemon 104.9MB
Step 1/4 : FROM alpine
---> 11cd0b38bc3c
Step 2/4 : ADD . /app
---> fa6cfbe1b180
Step 3/4 : COPY cmd.sh /cmd.sh
---> f0f609c32161
Step 4/4 : CMD ["sh", "-c", "/cmd.sh"]
---> Running in 043b2c95d111
Removing intermediate container 043b2c95d111
---> b3ef9182ac51
Successfully built b3ef9182ac51
Successfully tagged large-file-context:latest
```

To improve this, include the filename of the large file in the ignore file

```
$ echo big-temp-file.img >> .dockerignore
```

Now build the image

```
$ docker build -t no-large-file-context .  
Sending build context to Docker daemon 4.096kB  
Step 1/4 : FROM alpine  
----> 11cd0b38bc3c  
Step 2/4 : ADD . /app  
----> 2426b262372f  
Step 3/4 : COPY cmd.sh /cmd.sh  
----> fab06f764270  
Step 4/4 : CMD ["sh", "-c", "/cmd.sh"]  
----> Running in 288eedbfe7e8  
Removing intermediate container 288eedbfe7e8  
----> 860ef79f91d6  
Successfully built 860ef79f91d6  
Successfully tagged no-large-file-context:latest
```