

CREATE IMAGE USING DOCKERFILE

```
docker build -t mynginxbuild:V2 -f Dockerfile2 ■ [ dot ]
```

DOCKERFILE OPTIONS, STRUCTURES & EFFICIENCIES - BASIC

[REFER Dockerfile_1](#)

[REFER Dockerfile_2](#)

DOCKERFILE OPTIONS, STRUCTURES & EFFICIENCIES - ADD /COPY /ARG /ENV

[REFER Dockerfile_3](#)

COPY only works with files, whereas ADD works with URLs also.

```
echo "This is our dockerfile index html" >index.html
```

```
docker build -t="mycentoserv:v4" ■ [ dot ]
```

```
elinks http://172.17.0.2 [ our html page is displayed here ]
```

```
[root@ip-172-31-44-133 Dockerfiles]# docker ps --no-trunc
```

□□ this gives the entire history of commands run to make this container.

[REFER Dockerfile_4](#)

```
docker build -t="mycentoserv:v4" ■ [ dot ]
```

```
[root@ip-172-31-44-133 Dockerfiles]# docker run -it mycentoserv:v4
26
```

Now the Dockerfile only provides the count of file listing and nothing else.

try to attach /bin/bash command with the docker run□□

```
[root@ip-172-31-44-133 Dockerfiles]# docker run -it mycentoserv:v4 /bin/bash
26
```

we can see that the /bin/bash is IGNORED. because ENTRYPOINT cannot be overridden and the ENTRYPOINT has taken the control of the command line.

HOW IMAGE LAYERS WORK

```
[root@ip-172-31-44-133 Dockerfiles]# docker history myrepo/ubuntu:V1
```

IMAGE	CREATED	CREATED BY	SIZE	COMMENT
74f8760a2a8b	10 days ago	/bin/sh -c #(nop) CMD ["/bin/bash"]	0B	
<missing>	10 days ago	/bin/sh -c mkdir -p /run/systemd && echo 'do...	7B	
<missing>	10 days ago	/bin/sh -c sed -i 's/^#s*(deb.*universe)\$...	2.76kB	
<missing>	10 days ago	/bin/sh -c rm -rf /var/lib/apt/lists/*	0B	
<missing>	10 days ago	/bin/sh -c set -xe && echo '#!/bin/sh' > /...	745B	
<missing>	10 days ago	/bin/sh -c #(nop) ADD file:5fab77ea8d61e02d...	82.4MB -->	The sum total of the size of individual layer should be the size of the entire image. □

Docker follows UNION FILE SYSTEM (several file systems overlaid together to form a single file system)

Modify an image to single layer

```
docker export eloquent_bardeen > mycentoserv3.tar
```

Export and SAVE are NOT one and the same. export is always ONLY for container whereas SAVE is always ONLY for Image