Building an Image using DockerFile

```
root@myVM:~/example# ^C
root@myVM:~/example# cat > Dockerfile <<EOF
FROM centos
RUN sed -i 's/mirrorlist/#mirrorlist/g'
/etc/yum.repos.d/CentOS-Linux-*
RUN sed -i
's|#baseurl=http:/o^Corg|g' /etc/yum.repos.d/CentOS-Linux-* RUN yu
m -y install epel-release RUN yum -y update RUN yum -y install ngi
nx RUN mkdir -p /data/storage WORKDIR /data/storage ADD index.html
 /usr/share/nginx/html/index.html EXPOSE 80/tcp CMD ["nginx", "-g"
, "daemon off;"] EOF
root@myVM:~/example# FROM centos
FROM: command not found
root@myVM:~/example# FROM centos

# Update the repository configuration to use the vault URLs
RUN sed -i 's/mirrorlist/#mirrorlist/g' /etc/yum.repos.d/CentOS-Li
nux-*
RUN sed -i 's|#baseurl=http://mirror.centos.org|baseurl=http://vau
lt.centos.org|g' /etc/yum.repos.d/CentOS-Linux-*

# Install EPEL repository and update the system
RUN yum -y install epel-release
RUN yum -y update

# Install Nginx
RUN yum -y install nginx

# Create the storage directory
RUN mkdir -p /data/storage

# Set the working directory
WORKDIR /data/storage

# Add index.html to the Nginx default HTML directory
ADD index.html /usr/share/nginx/html/index.html

# Expose port 80
EXPOSE 80/tcp
```

```
lt.centos.org|g' /etc/yum.repos.d/CentOS-Linux-*
RUN yum -y install epel-release
RUN yum -y update
RUN yum -y install nginx
RUN mkdir -p /data/storage
WORKDIR /data/storage
ADD index.html /usr/share/nginx/html/index.html
EXPOSE 80/tcp
CMD ["nginx", "-g", "daemon off;"]
EOF
root@myVM:~/example# docker image build -t centos:nginx .
[+] Building 94.4s (14/14) FINISHED                    docker:default
 => [internal] load build definition from Dockerfile           0.0s
 => => transferring dockerfile: 459B                           0.0s
 => [internal] load metadata for docker.io/library/centos:l    2.4s
 => [internal] load .dockerignore                              0.0s
 => => transferring context: 2B                                0.0s
 => [internal] load build context                              0.1s
 => => transferring context: 64B                               0.0s
 => [1/9] FROM docker.io/library/centos:latest@sha256:a27fd    6.9s
 => => resolve docker.io/library/centos:latest@sha256:a27fd    0.1s
 => => sha256:a1801b843b1bfaf77c501c7a6d3f70940 529B / 529B    0.0s
 => => sha256:5d04a3dc976460b72c77d94c8a1ed 2.14kB / 2.14kB    0.0s
 => => sha256:a1d0c7532777641fa0db9ed3ad 83.52MB / 83.52MB     1.7s
 => => sha256:a27fd8080b517143cbbbab9dfb7c8571c 762B / 762B    0.0s
 => => extracting sha256:a1d0c7532777641fa0db9ed3adcdbaded      5.0s
 => [2/9] RUN sed -i 's/mirrorlist/#mirrorlist/g' /etc/yum.    2.0s
 => [3/9] RUN sed -i 's|#baseurl=http://mirror.centos.org|b    0.3s
 => [4/9] RUN yum -y install epel-release                      7.1s
 => [5/9] RUN yum -y update                                    58.9s
 => [6/9] RUN yum -y install nginx                             11.9s
 => [7/9] RUN mkdir -p /data/storage                           0.3s
 => [8/9] WORKDIR /data/storage                                0.1s
 => [9/9] ADD index.html /usr/share/nginx/html/index.html      0.1s
 => exporting to image                                         7.1s
 => => exporting layers                                        7.1s
 => => writing image sha256:c699c3d3f5f510232380f34f34d718c    0.0s
 => => naming to docker.io/library/centos:nginx                0.0s
root@myVM:~/example#
```

```
* Management:        https://landscape.canonical.com
* Support:           https://ubuntu.com/pro

 System information as of Wed Aug 14 10:49:31 UTC 2024

  System load:  0.0               Processes:            124
  Usage of /:   10.3% of 28.02GB  Users logged in:      0
  Memory usage: 7%                IPv4 address for eth0: 10.0.0.4
  Swap usage:   0%

 * Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
   just raised the bar for easy, resilient and secure K8s cluster deployment.

   https://ubuntu.com/engage/secure-kubernetes-at-the-edge

Expanded Security Maintenance for Applications is not enabled.

4 updates can be applied immediately.
To see these additional updates run: apt list --upgradable

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status


Last login: Wed Aug 14 09:15:19 2024 from 210.18.153.3
anusha954@myVM:~$ sudo su -
root@myVM:~# docker image ls
REPOSITORY     TAG        IMAGE ID       CREATED          SIZE
centos         nginx      c699c3d3f5f5   51 minutes ago   672MB
root@myVM:~# docker container run --name web-nginx -dit centos:ngi
nx
a167c44187a6f820f7cee7089acc6a5b5c723f1684202c3a4707ed1f9c71c40d
root@myVM:~# docker container inspect web-nginx | grep IPAddress
            "SecondaryIPAddresses": null,
            "IPAddress": "172.17.0.2",
                    "IPAddress": "172.17.0.2",
root@myVM:~# curl 172.17.0.2
Welcome to Docker Learning
root@myVM:~#
```



```
   just raised the bar for easy, resilient and secure K8s cluster deployment.

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                    "IPAddress": "172.17.0.2",
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Welcome to Docker Learning
root@myVM:~# docker container rm `docker container ls -a -q` -f
a167c44187a6
root@myVM:~#  docker image rm `docker image ls -q` -f
Untagged: centos:nginx
Deleted: sha256:c699c3d3f5f510232380f54f54d718cf0d1855dcc64e4089ad
c04d77b85283df
root@myVM:~#  docker container ls -a
CONTAINER ID   IMAGE     COMMAND     CREATED     STATUS     PORTS      N
AMES
root@myVM:~# docker image ls
REPOSITORY     TAG        IMAGE ID       CREATED     SIZE
root@myVM:~# cd ~
```