

Homework 10-June-2024

Tuesday, June 11, 2024 12:13 PM

Scenario 1

```
ubuntu $ docker build -t image1:centos .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon 28.16kB
Step 1/2 : FROM centos
latest: Pulling from library/centos
a1d0c7532777: Pull complete
Digest: sha256:a27fd8080b517143cbbbab9dfb7c8571c40d67d534bbdee55bd6c473f432b177
Status: Downloaded newer image for centos:latest
--> 5d0da3dc9764
Step 2/2 : CMD echo "Hello World"
--> Running in edf03f0f8c3c
Removing intermediate container edf03f0f8c3c
--> f80db945e5dd
Successfully built f80db945e5dd
Successfully tagged image1:centos
ubuntu $ docker run image1:centos
Hello World
ubuntu $ cat Dockerfile
FROM centos
CMD echo "Hello World"
ubuntu $
```

Scenario 2

```
ubuntu $ docker build -t image1:ubuntu .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon 28.67kB
Step 1/2 : FROM ubuntu
latest: Pulling from library/ubuntu
00d679a470c4: Pull complete
Digest: sha256:e3f92abc0967a6c19d0dfa2d55838833e947b9d74edbc0113e48535ad4be12a
Status: Downloaded newer image for ubuntu:latest
--> 17c0145030df
Step 2/2 : CMD echo "Hello World"
--> Running in be27e8ee037a
Removing intermediate container be27e8ee037a
--> 79871769b7d1
Successfully built 79871769b7d1
Successfully tagged image1:ubuntu
ubuntu $
ubuntu $
ubuntu $
ubuntu $ docker run image1:ubuntu
Hello World
ubuntu $
```

Scenario 3

```
ubuntu $ docker build -t image1:alpine .
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
            Install the buildx component to build images with BuildKit:
            https://docs.docker.com/go/buildx/

Sending build context to Docker daemon 29.7kB
Step 1/2 : FROM alpine
--> 1d34ffeaf190
Step 2/2 : CMD ["echo","Hello World"]
--> Running in bb34aefdc906
Removing intermediate container bb34aefdc906
--> f24e2c8e9da2
Successfully built f24e2c8e9da2
Successfully tagged image1:alpine
ubuntu $ docker run alpine:latest
Hello World
ubuntu $
```

Scenario 4

```
ubuntu $ cat Dockerfile
FROM ubuntu
RUN apt-get update
RUN apt install git -y
RUN apt-get update
RUN apt install nginx -y
RUN apt-get update
RUN apt install openjdk-17-jre-headless -y
CMD echo "Hello-world"
ubuntu $
ubuntu $
ubuntu $ docker build -y image1:ubuntu .
```

```
ubuntu $ docker run -it image1:ubuntu /bin/bash
root@970c79b7664d:/# java --version
openjdk 17.0.11 2024-04-16
OpenJDK Runtime Environment (build 17.0.11+9-Ubuntu-1)
OpenJDK 64-Bit Server VM (build 17.0.11+9-Ubuntu-1, mixed mode, sharing)
root@970c79b7664d:/# git --version
git version 2.43.0
root@970c79b7664d:/# nginx --help
nginx: invalid option: "-"
root@970c79b7664d:/# nginx -help
nginx version: nginx/1.24.0 (Ubuntu)
Usage: nginx [-?hvVtTq] [-s signal] [-p prefix]
             [-e filename] [-c filename] [-g directives]

Options:
  -?, -h          : this help
  -v              : show version and exit
  -V              : show version and configure options then exit
  -t              : test configuration and exit
  -T              : test configuration, dump it and exit
  -q              : suppress non-error messages during configuration testing
  -s signal        : send signal to a master process: stop, quit, reopen, reload
  -p prefix        : set prefix path (default: /usr/share/nginx/)
  -e filename      : set error log file (default: stderr)
  -c filename      : set configuration file (default: /etc/nginx/nginx.conf)
  -g directives    : set global directives out of configuration file

root@970c79b7664d:/# nginx -v
nginx version: nginx/1.24.0 (Ubuntu)
root@970c79b7664d:/#
```

Scenario 5

```
FROM centos:latest
RUN cd /etc/yum.repos.d/
RUN sed -i 's/mirrorlist/#mirrorlist/g' /etc/yum.repos.d/CentOS-*
RUN sed -i 's|#baseurl=http://mirror.centos.org|baseurl=http://vault.centos.org|g'
/etc/yum.repos.d/CentOS-*
RUN yum -y update && \
    yum -y install httpd && \
    yum clean all
RUN yum -y install git
RUN yum install java-17-openjdk-devel -y
RUN cp index.html /var/www/html/
CMD ["usr/sbin/httpd", "-D", "FOREGROUND"]
```

```
Sending build context to Docker daemon 36.86kB
Step 1/8 : FROM centos
--> 5d0da3dc9764
Step 2/8 : RUN cd /etc/yum.repos.d/
--> Using cache
--> 6ad4e4cee46c
Step 3/8 : RUN sed -i 's/mirrorlist/#mirrorlist/g' /etc/yum.repos.d/CentOS-*
--> Using cache
--> c6105590e8c4
Step 4/8 : RUN sed -i 's|#baseurl=http://mirror.centos.org|baseurl=http://vault.centos.org|g' /etc/yum.repos.d/CentOS-*
--> Using cache
--> 7586bf0e8faf
Step 5/8 : RUN yum -y update && yum -y install httpd && yum clean all
--> Using cache
--> b4abbc4b4dc2
Step 6/8 : RUN yum -y install git
--> Using cache
--> 2d70d835c776
Step 7/8 : RUN yum install java-17-openjdk-devel -y
--> Using cache
--> 27dd6eeb6e7d
Step 8/8 : CMD ["usr/sbin/httpd", "-D", "FOREGROUND"]
--> Running in 3377250063ae
Removing intermediate container 3377250063ae
--> 4f4e1f8df7f8
Successfully built 4f4e1f8df7f8
Successfully tagged image1:centos
```

```

ubuntu $ docker run -it image1:centos /bin/bash
[root@5733999be15b /]# java --version
openjdk 17.0.1 2021-10-19 LTS
OpenJDK Runtime Environment 21.9 (build 17.0.1+12-LTS)
OpenJDK 64-Bit Server VM 21.9 (build 17.0.1+12-LTS, mixed mode, sharing)
[root@5733999be15b /]# git --version
git version 2.27.0
[root@5733999be15b /]# httpd --version
AH00558: httpd: could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
[root@5733999be15b /]# /usr/sbin/httpd -v
Server version: Apache/2.4.37 (centos)
Server built:   Nov 12 2021 04:57:27
[root@5733999be15b /]# █

```

Scenario 6

```

FROM alpine:latest
RUN apk update
RUN apk add git
RUN apk update
RUN apk add nginx
RUN apk update
RUN apk add openjdk17
CMD echo "Done"

```

```

ubuntu $ docker run -it image1:alpine
Done

```

```

ubuntu $ docker run -it image1:alpine /bin/sh
/ #
/ #
/ # git --version
git version 2.45.2
/ # java --version
openjdk 17.0.11 2024-04-16
OpenJDK Runtime Environment (build 17.0.11+9-alpine-r0)
OpenJDK 64-Bit Server VM (build 17.0.11+9-alpine-r0, mixed mode, sharing)
/ # nginx --version
nginx: invalid option: "-"
/ # nginx -version
nginx version: nginx/1.26.1
/ # █

```