Step 1:- Check the gcxi images

[root@localhost ~]# docker images | grep -i "gcxi"

gcxi 100.0.026.0001 bd4cb8c63f7c 4 months ago 13.1GB

gcxi\_control 100.0.026.0001 f7154ec5b736 4 months ago 1.5GB

Step2:- Edit docker file

[root@localhost ~]# vi Dockerfile

## example, tune to your needs

FROM gcxi:100.0.026.0001

## temporarily - otherwise you won't be able to run useradd

USER root

## here we create a new user with desired id inside the container

## and add it to the appropriate user group

## before v. 100.0.021.0000: genesys (id=500)

## after v. 100.0.021.0000: root (id=0)

## all files in container are under corresponding group ownership:

## either genesys:genesys (500:500), or genesys:root (500:0), depending on GCXI version

## the new user will be able to manage all necessary file thru group ownership

## desired user id

ENV NEW\_UID=1005

## not that important, as users between a Docker container and a host are mapped by user id

## that will be just a name of the user inside the container

ENV NEW\_USER="myuser1005"

## temporary ownership fix ( this command is needed ONLY in v. 9.0.014.02)

#RUN chmod g=u /opt/tomcat/\* &&\

#chmod g=u /opt/tomcat/bin/setenv.sh &&\

#chmod g=u /opt/tomcat/webapps/\*/WEB-INF &&\

#chmod g=u /opt/tomcat/webapps/\*/WEB-INF/\* &&\

#chmod g=u /opt/tomcat/webapps/\*/WEB-INF/xml/\* &&\

#chmod g=u /opt/tomcat/webapps/\*/WEB-INF/classes/config/\* &&\

#chmod -R g=u /opt/tomcat/conf &&\

#chown $NEW\_UID /opt/tomcat/bin/\*.sh

## before v. 100.0.021.0000

#RUN useradd --gid 500 --uid $NEW\_UID --home /home/genesys --shell /bin/bash $NEW\_USER;

## since v. 100.0.021.0000

RUN useradd --gid 0 --uid $NEW\_UID --home /home/genesys --shell /bin/bash $NEW\_USER;

Step3:- Build the docker file

[root@localhost ~]# docker build .

Sending build context to Docker daemon 85.28MB

Step 1/5 : FROM gcxi:100.0.026.0001

---> bd4cb8c63f7c

Step 2/5 : USER root

---> Running in 40e2cdcc21f7

Removing intermediate container 40e2cdcc21f7

---> dd01e2064109

Step 3/5 : ENV NEW\_UID=1005

---> Running in b600f90edbc0

Removing intermediate container b600f90edbc0

---> 4ddb99cbe135

Step 4/5 : ENV NEW\_USER="myuser1005"

---> Running in 3c136b3e9100

Removing intermediate container 3c136b3e9100

---> 45379877602e

Step 5/5 : RUN useradd --gid 0 --uid $NEW\_UID --home /home/genesys --shell /bin/bash $NEW\_USER;

---> Running in 1262ff9054c6

useradd: warning: the home directory already exists.

Not copying any file from skel directory into it.

Removing intermediate container 1262ff9054c6

---> 862c789a4f2b

Successfully built 862c789a4f2b

Step 4 :- Verify newly created docker image

[root@localhost ~]# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

**<none> <none> 862c789a4f2b About a minute ago 13.1GB**

gcxi 100.0.026.0001 bd4cb8c63f7c 4 months ago 13.1GB

gcxi\_control 100.0.026.0001 f7154ec5b736 4 months ago 1.5GB

Step5:- you can retag the newly build image using image id(Optional)

[root@localhost ~]# docker tag 862c789a4f2b gcxi\_with\_uid:100.0.026.0001

[root@localhost ~]# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

gcxi\_with\_uid 100.0.026.0001 862c789a4f2b 6 minutes ago 13.1GB

gcxi 100.0.026.0001 bd4cb8c63f7c 4 months ago 13.1GB

gcxi\_control 100.0.026.0001 f7154ec5b736 4 months ago 1.5GB

step6:- Deploy the newly created image using various deployment methods

Step7:- Validation

[root@localhost gcxi]# docker images

REPOSITORY TAG IMAGE ID CREATED SIZE

gcxi\_with\_uid 100.0.026.0001 862c789a4f2b 3 hours ago 13.1GB

gcxi 100.0.026.0001 bd4cb8c63f7c 4 months ago 13.1GB

gcxi\_control 100.0.026.0001 f7154ec5b736 4 months ago 1.5GB

[root@localhost gcxi]# docker ps | grep -i "gcxi\_with\_uid"

06a30247d68f gcxi\_with\_uid:100.0.026.0001 "/bin/bash -c 'sleep…" 12 minutes ago Up 12 minutes 0.0.0.0:8080->8080/tcp, :::8080->8080/tcp, 0.0.0.0:8180->8180/tcp, :::8180->8180/tcp, 0.0.0.0:34952->34952/tcp, :::34952->34952/tcp gcxi\_gcxi-0\_1

[root@localhost gcxi]# docker exec -it 06a30247d68f /bin/bash

[root@gcxi-0 genesys]#

[root@gcxi-0 genesys]# id

uid=0(root) gid=0(root) groups=0(root)

[root@gcxi-0 genesys]# cat /etc/passwd

root:x:0:0:root:/root:/bin/bash

bin:x:1:1:bin:/bin:/sbin/nologin

daemon:x:2:2:daemon:/sbin:/sbin/nologin

adm:x:3:4:adm:/var/adm:/sbin/nologin

lp:x:4:7:lp:/var/spool/lpd:/sbin/nologin

sync:x:5:0:sync:/sbin:/bin/sync

shutdown:x:6:0:shutdown:/sbin:/sbin/shutdown

halt:x:7:0:halt:/sbin:/sbin/halt

mail:x:8:12:mail:/var/spool/mail:/sbin/nologin

operator:x:11:0:operator:/root:/sbin/nologin

games:x:12:100:games:/usr/games:/sbin/nologin

ftp:x:14:50:FTP User:/var/ftp:/sbin/nologin

nobody:x:65534:65534:Kernel Overflow User:/:/sbin/nologin

tss:x:59:59:Account used for TPM access:/dev/null:/sbin/nologin

dbus:x:81:81:System message bus:/:/sbin/nologin

systemd-coredump:x:999:997:systemd Core Dumper:/:/sbin/nologin

systemd-resolve:x:193:193:systemd Resolver:/:/sbin/nologin

genesys:x:500:500::/home/genesys:/bin/bash

tcpdump:x:72:72::/:/sbin/nologin

myuser1005:x:1005:0::/home/genesys:/bin/bash

[root@gcxi-0 genesys]#

Step8 :- Have to apply in kubenetes deployment by adding security content