

Exercise 7

Commit and Export Container Images

Q1.

Create a container “container4” using any image.
Go inside the container and create some new files namely,
“a.txt”, “b.txt”, “c.txt”
also create some directories namely,
“new”, “old”, “current”

See the changes made using the “diff” command.

Use the previous container “container4”
Commit all the changes, and make an image with the name “my-image” for your local repository.

Save that “my-image” image and make it export ready by compressing and saving it as a .tar file.

You can now go ahead and delete the image from our local repository and verify the same using “podman image ls” command.

Now simply we will load that image from the previously created .tar file and we will now see the image available when we run “podman images ls” command.

On making a container using that same image we will find that all the files and directories that we made in the beginning are visible.

This is how we can use podman commit to create custom images from running containers and how we can export them in .tar format.

Solutions

Q1.

```
[root@localhost ~]# podman run -d --name container4 httpd
62d0697bb213df39f73bb05d472060af8273d922dbcd4c73fd1a767b10179448
[root@localhost ~]# podman exec -it container4 bash
root@62d0697bb213:/usr/local/apache2# touch a.txt
root@62d0697bb213:/usr/local/apache2# touch b.txt
root@62d0697bb213:/usr/local/apache2# touch c.txt
root@62d0697bb213:/usr/local/apache2# mkdir new
root@62d0697bb213:/usr/local/apache2# mkdir old
root@62d0697bb213:/usr/local/apache2# exit
exit
[root@localhost ~]# podman diff container4
C /etc
C /root
A /root/.bash_history
C /usr
C /usr/local
C /usr/local/apache2
C /usr/local/apache2/logs
A /usr/local/apache2/logs/httpd.pid
A /usr/local/apache2/a.txt
A /usr/local/apache2/b.txt
A /usr/local/apache2/c.txt
A /usr/local/apache2/old
A /usr/local/apache2/new
[root@localhost ~]#
```

```
[root@localhost ~]# podman commit container4
Getting image source signatures
Copying blob d310e774110a skipped: already exists
Copying blob 48b2344d5345 skipped: already exists
Copying blob 137ba5ba7d2b skipped: already exists
Copying blob 3036f5b96200 skipped: already exists
Copying blob de32a61f011b skipped: already exists
Copying blob 8786329e1fd7 done
Copying config f5e3b36506 done
Writing manifest to image destination
Storing signatures
f5e3b365062d66294f18bb78245080923faf957e57ee3363351aeb9e03734787
[root@localhost ~]# podman images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
<none>	<none>	f5e3b365062d	14 seconds ago	173 MB
docker.io/library/httpd	latest	359570977af2	9 days ago	173 MB
docker.io/dtg2468/my-project	1.0	359570977af2	9 days ago	173 MB
quay.io/centos/centos	latest	300e315adb2f	2 years ago	217 MB
quay.io/dtg2468/image-new	master	300e315adb2f	2 years ago	217 MB

```
[root@localhost ~]# podman tag f5e3b365062d my-image
[root@localhost ~]# podman images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
localhost/my-image	latest	f5e3b365062d	38 seconds ago	173 MB
docker.io/library/httpd	latest	359570977af2	9 days ago	173 MB
docker.io/dtg2468/my-project	1.0	359570977af2	9 days ago	173 MB
quay.io/centos/centos	latest	300e315adb2f	2 years ago	217 MB
quay.io/dtg2468/image-new	master	300e315adb2f	2 years ago	217 MB

```
[root@localhost ~]#
```

```
[root@localhost ~]# podman save -o my-image.tar
Error: need at least 1 argument
[root@localhost ~]# podman save my-image -o my-image.tar
Copying blob d310e774110a done
Copying blob 48b2344d5345 done
Copying blob 137ba5ba7d2b done
Copying blob 3036f5b96200 done
Copying blob de32a61f011b done
Copying blob 8786329e1fd7 done
Copying config f5e3b36506 done
Writing manifest to image destination
Storing signatures
[root@localhost ~]# podman rmi my-image
Untagged: localhost/my-image:latest
Deleted: f5e3b365062d66294f18bb78245080923faf957e57ee3363351aeb9e03734787
[root@localhost ~]# podman images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
docker.io/library/httpd	latest	359570977af2	9 days ago	173 MB
docker.io/dtg2468/my-project	1.0	359570977af2	9 days ago	173 MB
quay.io/centos/centos	latest	300e315adb2f	2 years ago	217 MB
quay.io/dtg2468/image-new	master	300e315adb2f	2 years ago	217 MB

```
[root@localhost ~]#
```

```
[root@localhost ~]# podman load -i my-image.tar
Getting image source signatures
Copying blob 8786329e1fd7 done
Copying blob 48b2344d5345 skipped: already exists
Copying blob d310e774110a skipped: already exists
Copying blob 3036f5b96200 skipped: already exists
Copying blob 137ba5ba7d2b skipped: already exists
Copying blob de32a61f011b skipped: already exists
Copying config f5e3b36506 done
Writing manifest to image destination
Storing signatures
Loaded image: localhost/my-image:latest
[root@localhost ~]# podman images
```

REPOSITORY	TAG	IMAGE ID	CREATED	SIZE
localhost/my-image	latest	f5e3b365062d	10 minutes ago	173 MB
docker.io/library/httpd	latest	359570977af2	9 days ago	173 MB
docker.io/dtg2468/my-project	1.0	359570977af2	9 days ago	173 MB
quay.io/centos/centos	latest	300e315adb2f	2 years ago	217 MB
quay.io/dtg2468/image-new	master	300e315adb2f	2 years ago	217 MB

```
[root@localhost ~]#
```

```
[root@localhost ~]# podman run -d --name con1 my-image
1a6a62adb6dbec077994a63542416c4ff0aa6f1582df9a3677d7d7775d853def
[root@localhost ~]# podman exec -it con1 bash
root@1a6a62adb6db:/usr/local/apache2# ls
a.txt  b.txt  bin    build  c.txt  cgi-bin  conf  error  htdocs  icons  include  logs  modules  new  old
root@1a6a62adb6db:/usr/local/apache2#
```