Docker - Containers

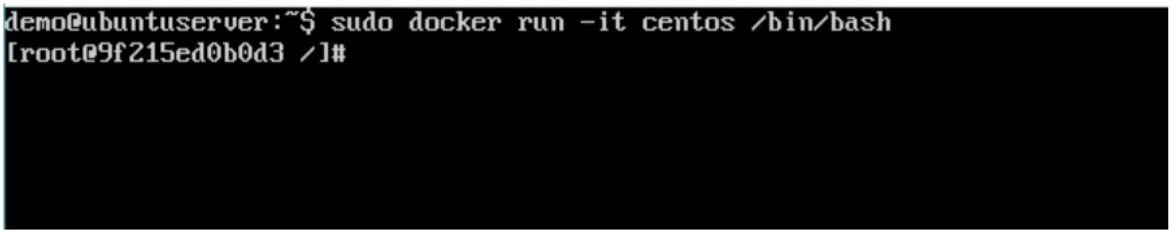
Containers are instances of Docker images that can be run using the Docker run command. The basic purpose of Docker is to run containers. Let's discuss how to work with containers.

Running a Container

Running of containers is managed with the Docker **run** command. To run a container in an interactive mode, first launch the Docker container.

```
sudo docker run -it centos /bin/bash
```

Then hit Crtl+p and you will return to your OS shell.



You will then be running in the instance of the CentOS system on the Ubuntu server.

Listing of Containers

One can list all of the containers on the machine via the **docker ps** command. This command is used to return the currently running containers.

```
docker ps
```

Syntax

```
docker ps
```

Options

None

Return Value

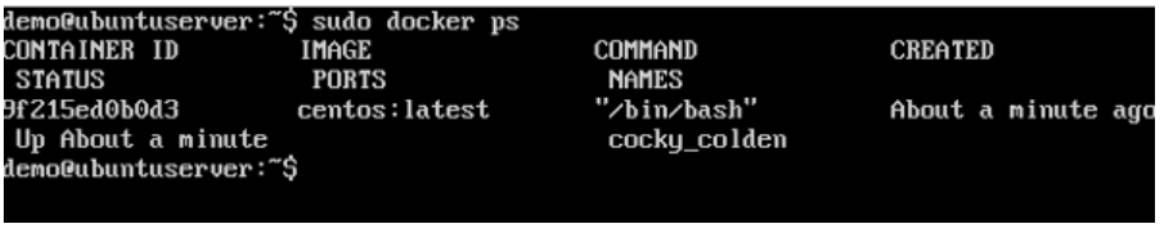
The output will show the currently running containers.

Example

```
sudo docker ps
```

Output

When we run the above command, it will produce the following result −



Let's see some more variations of the **docker ps** command.

docker ps -a

This command is used to list all of the containers on the system

Syntax

```
docker ps -a
```

Options

- **—a** – It tells the **docker ps** command to list all of the containers on the system.

Return Value

The output will show all containers.

Example

```
sudo docker ps -a
```

Output

When we run the above command, it will produce the following result −

docker history

With this command, you can see all the commands that were run with an image via a container.

Syntax

```
docker history ImageID
```

Options

- **ImageID** − This is the Image ID for which you want to see all the commands that were run against it.

Return Value

The output will show all the commands run against that image.

Example

```
sudo docker history centos
```

The above command will show all the commands that were run against the **centos** image.

Output

When we run the above command, it will produce the following result −