

Experiment 13

Basic Docker Commands

- 1) Pulling the docker images and run it on.

```
root@localhost:~# docker pull ubuntu:18.04
18.04: Pulling from library/ubuntu
171857c49d0f: Pull complete
419640447d26: Pull complete
61e52f862619: Pull complete
Digest: sha256:646942475da61b4ce9cc5b3fadb42642ea90e5d0de46111458e100ff2c7031e6
Status: Downloaded newer image for ubuntu:18.04
docker.io/library/ubuntu:18.04
root@localhost ~]# docker run -d ubuntu
cfa15b193b5397bc3feb10d2a66865182e3619942ad3e70a36163f831795ab01
root@localhost ~]#
root@localhost ~]#
root@localhost ~]# docker run -it ubuntu
root@064b13048d5d:/# ls
bin boot dev etc home lib lib32 lib64 libx32 media mnt opt proc root run sbin srv sys tmp usr var
root@064b13048d5d:/# pwd
/
root@064b13048d5d:/# exit
exit
root@localhost ~]#
root@localhost ~]#
```

- 2) Run the docker container in background and check if the container is running using docker ps command.

```
root@localhost:~# docker run -d --name kshitizsaini113 alpine
034e6ebf7ef7a72de953db8b3b08a7b2601e75739cbaaaf495226a3d5b37b84
root@localhost ~]#
root@localhost ~]#
root@localhost ~]#
root@localhost ~]# docker ps -q
root@localhost ~]# docker ps -q
root@localhost ~]# docker ps -a
```

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS	PORTS	NAMES
034e6ebf7ef7	alpine	"/bin/sh"	11 seconds ago	Exited (0) 10 seconds ago		kshitizsaini113
15934c16342e	ubuntu	"/bin/bash"	34 seconds ago	Exited (0) 33 seconds ago		modest_curie
8e516ae408aa	alpine	"/bin/sh"	50 seconds ago	Exited (0) 49 seconds ago		kshitizsaini
61fa92c64973	alpine	"/bin/sh"	About a minute ago	Exited (0) About a minute ago		kshitizs
33416afdc4c	alpine	"/bin/sh"	About a minute ago	Exited (0) About a minute ago		kshitiz
aa870863b60f	alpine	"/bin/sh"	2 minutes ago	Created		brave_saha
c728d829164a	redis:latest	"docker-entrypoint.s..."	3 minutes ago	Created		redisHost
dbecd8b05961	redis:latest	"docker-entrypoint.s..."	4 minutes ago	Created		redisHostPort
bd4d1921d9a6	ubuntu	"/bin/bash"	6 minutes ago	Created		cocky_poitras
256ddde0639a	ubuntu	"/bin/bash"	6 minutes ago	Created		peaceful_perlman
064b13048d5d	ubuntu	"/bin/bash"	7 minutes ago	Exited (0) 6 minutes ago		laughing_ritchie
cfa15b193b53	ubuntu	"/bin/bash"	7 minutes ago	Exited (0) 7 minutes ago		dazzling_ritchie
0495acfc25ec	ubuntu:latest	"/bin/bash"	35 hours ago	Exited (0) 35 hours ago		boring_vaughan
ead404fa3e59	centos	"/bin/bash"	4 days ago	Exited (1) 4 days ago		friendly_feynman
6204d22f7d7a	centos	"/bin/bash"	4 days ago	Exited (0) 4 days ago		kind_lederberg
20293c281a21	centos:latest	"/bin/bash"	4 days ago	Exited (1) 4 days ago		web1
cee266d3fd73	jlesage/firefox	"/init"	11 days ago	Exited (255) 10 days ago	0.0.0.0:5800->5800/tcp, 5900/tcp	firefox
c562186832ca	ubuntu	"date"	11 days ago	Exited (0) 11 days ago		jolly_brahmagupta
58c53759455c	ubuntu	"cat"	11 days ago	Created		hopeful_kapitsa
3d3fd9ca778	ubuntu	"ifconfig"	11 days ago	Created		xenodochial_joliot
d26d83161ecc	ubuntu	"firefox"	11 days ago	Created		practical_liskov
7b40a9d3e2d6	ubuntu	"date"	11 days ago	Exited (0) 11 days ago		inspiring_galileo
37d3a39b8114	ubuntu:14.04	"/bin/bash"	11 days ago	Exited (1) 11 days ago		recursing_hayrovsky
f6f72f16a23f	ubuntu:14.04	"/bin/bash"	11 days ago	Exited (2) 11 days ago		gifted_goldwasser
bb11a6ba166	ubuntu	"/bin/bash"	11 days ago	Exited (100) 11 days ago		adoring_cartwright
5eb6a1fe4860	ubuntu:14.04	"/bin/bash"	12 days ago	Exited (127) 12 days ago		inspiring_joliot
c457b682f2da	ubuntu:14.04	"/bin/bash"	12 days ago	Exited (1) 12 days ago		nervous_diffie
2ee64168dcb	ubuntu	"/bin/bash"	13 days ago	Exited (0) 13 days ago		inspiring_varahamihira
e470d2eb1150	ubuntu	"/bin/bash"	2 weeks ago	Exited (127) 2 weeks ago		lucid_joliot

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

3) We can also inspect docker containers to see the complete info for the container.

```
root@localhost:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS        NAMES
33c4efd6bc69   ubuntu   "/bin/bash"             8 seconds ago Up 6 seconds          relaxed_spence

root@localhost:~# docker inspect 33c
[
  {
    "Id": "33c4efd6bc695c72151cf1bd1adf1bd728693aaec5d23a9e9faea4944abd9d50",
    "Created": "2020-11-10T06:17:15.716185184Z",
    "Path": "/bin/bash",
    "Args": [],
    "State": {
      "Status": "running",
      "Running": true,
      "Paused": false,
      "Restarting": false,
      "OOMKilled": false,
      "Dead": false,
      "Pid": 7343,
      "ExitCode": 0,
      "Error": "",
      "StartedAt": "2020-11-10T06:17:16.32506387Z",
      "FinishedAt": "0001-01-01T00:00:00Z"
    },
    "Image": "sha256:9140108b62dc87d9b278bb0d4fd6a3e44c2959646eb966b86531306faa81b09b",
    "ResolvConfPath": "/var/lib/docker/containers/33c4efd6bc695c72151cf1bd1adf1bd728693aaec5d23a9e9faea4944abd9d50/resolv.conf",
    "HostnamePath": "/var/lib/docker/containers/33c4efd6bc695c72151cf1bd1adf1bd728693aaec5d23a9e9faea4944abd9d50/hostname",
    "HostsPath": "/var/lib/docker/containers/33c4efd6bc695c72151cf1bd1adf1bd728693aaec5d23a9e9faea4944abd9d50/hosts",
    "LogPath": "/var/lib/docker/containers/33c4efd6bc695c72151cf1bd1adf1bd728693aaec5d23a9e9faea4944abd9d50/33c4efd6bc695c72151cf1bd1adf1bd728693aaec5d23a9e9faea4944abd9d50-json.log",
    "Name": "/relaxed_spence",
    "RestartCount": 0,
    "Driver": "overlay2",
    "Platform": "linux",
    "MountLabel": "",
    "ProcessLabel": ""
  }
]
```

4) Using stop and start command to run and stop containers.

```
root@localhost:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS        NAMES
33c4efd6bc69   ubuntu   "/bin/bash"             About a minute ago Up About a minute          relaxed_spence

root@localhost:~# docker stop 33c4ef
33c4ef
root@localhost:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS        NAMES
root@localhost:~# docker start 33c4ef
33c4ef
root@localhost:~# docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        PORTS        NAMES
33c4efd6bc69   ubuntu   "/bin/bash"             About a minute ago Up 2 seconds          relaxed_spence
```

