



UNIVERSITY WITH A PURPOSE

UNIVERSITY OF PETROLEUM & ENERGY STUDIES

College of Engineering Studies Dehradun

LAB FILE

Experiment 4

Programme : B. Tech in Computer Science and Engineering with Specialization in DevOps

Course : Application Containerization Lab

No. of credits : 1

Semester : VI

Session : January – May 2021

Batch : 2018-2022

Faculty : Dr. Hitesh Kumar Sharma

Submitted By:

Ingit Singhal

Sap id: 500068426

Roll No : R171218048

Docker - Installation, Configuration, Running Images.

Screenshots

```
vagrant@ubuntu-xenial: ~
cker.sock: connect: permission denied
vagrant@ubuntu-xenial:~$ sudo docker search redis
NAME                DESCRIPTION                                     STARS     OFFICIAL
redis               Redis is an open source key-value store that... 8792      [OK]
bitnami/redis       Bitnami Redis Docker Image                    168
sameersbn/redis     [OK]                                           82
grokzen/redis-cluster Redis cluster 3.0, 3.2, 4.0, 5.0, 6.0         72
rediscommander/redis-commander Alpine image for redis-commander - Redis man... 47
kubeguide/redis-master redis-master with "Hello World!"              33
redislabs/redisearch Redis With the RedisSearch module pre-loaded... 29
redislabs/redis     Clustered in-memory database engine compatib... 27
oliver006/redis_exporter Prometheus Exporter for Redis Metrics. Supp... 22
redislabs/rejson    RedisJSON - Enhanced JSON data type processi... 22
arm32v7/redis       Redis is an open source key-value store that... 22
```

```
[OK]
vagrant@ubuntu-xenial:~$ docker images
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock: Get http://%2Fvar%2Frun%2Fdocker.sock/v1.40/images/json: dial unix /var/run/docker.sock: connect: permission denied
vagrant@ubuntu-xenial:~$ sudo docker images
REPOSITORY          TAG             IMAGE ID        CREATED         SIZE
ubuntu              latest          f643c72bc252   5 days ago     72.9MB
vagrant@ubuntu-xenial:~$
```

vagrant@ubuntu-xenial: ~

```
vagrant@ubuntu-xenial:~$ sudo d
Using default tag: latest
latest: Pulling from library/redis
852e50cd189d: Pull complete
76190fa64fb8: Pull complete
9cbb1b61e01b: Pull complete
d048021f2aae: Pull complete
6f4b2af24926: Pull complete
1cf1d6922fba: Pull complete
Digest: sha256:5b98e32b58cdbf9f6b6f77072c4915d5ebec43912114031f37fa5fa25b032489
Status: Downloaded newer image for redis:latest
docker.io/library/redis:latest
vagrant@ubuntu-xenial:~$
```

vagrant@ubuntu-xenial: ~

```
ubuntu          latest          f643c72bc252    5 days ago     72.9MB
redis           latest          74d107221092    13 days ago    104MB
vagrant@ubuntu-xenial:~$ sudo docker images
REPOSITORY      TAG              IMAGE ID         CREATED         SIZE
ubuntu          latest          f643c72bc252    5 days ago     72.9MB
redis           latest          74d107221092    13 days ago    104MB
vagrant@ubuntu-xenial:~$
```

```
vagrant@ubuntu-xenial: ~  
vagrant@ubuntu-xenial:~$ sudo docker ps  
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS              PORTS  
vagrant@ubuntu-xenial:~$
```

```
vagrant@ubuntu-xenial: ~  
vagrant@ubuntu-xenial:~$ sudo docker run -d redis  
393c751cecb4cc780a2b8c65ccdeb14e0458b3bd4b361017d4273f1a9cc6fa4  
vagrant@ubuntu-xenial:~$
```

vagrant@ubuntu-xenial: ~

vagrant@ubuntu-xenial:~\$ sudo docker ps

CONTAINER ID	IMAGE	COMMAND	CREATED	STATUS
393c751cecb4	redis	"docker-entrypoint.s..."	44 seconds ago	Up 43 seconds

6379/tcp sharp_pike

vagrant@ubuntu-xenial:~\$

vagrant@ubuntu-xenial: ~

6379/tcp sharp_pike

vagrant@ubuntu-xenial:~\$ sudo docker run -it redis

1:C 01 Dec 2020 14:42:18.144 # oOoOoOoOoOoOo Redis is starting oOoOoOoOoOoOo

1:C 01 Dec 2020 14:42:18.144 # Redis version=6.0.9, bits=64, commit=00000000, modified=0, pid=1, just s

tarted

1:C 01 Dec 2020 14:42:18.144 # Warning: no config file specified, using the default config. In order to

specify a config file use redis-server /path/to/redis.conf

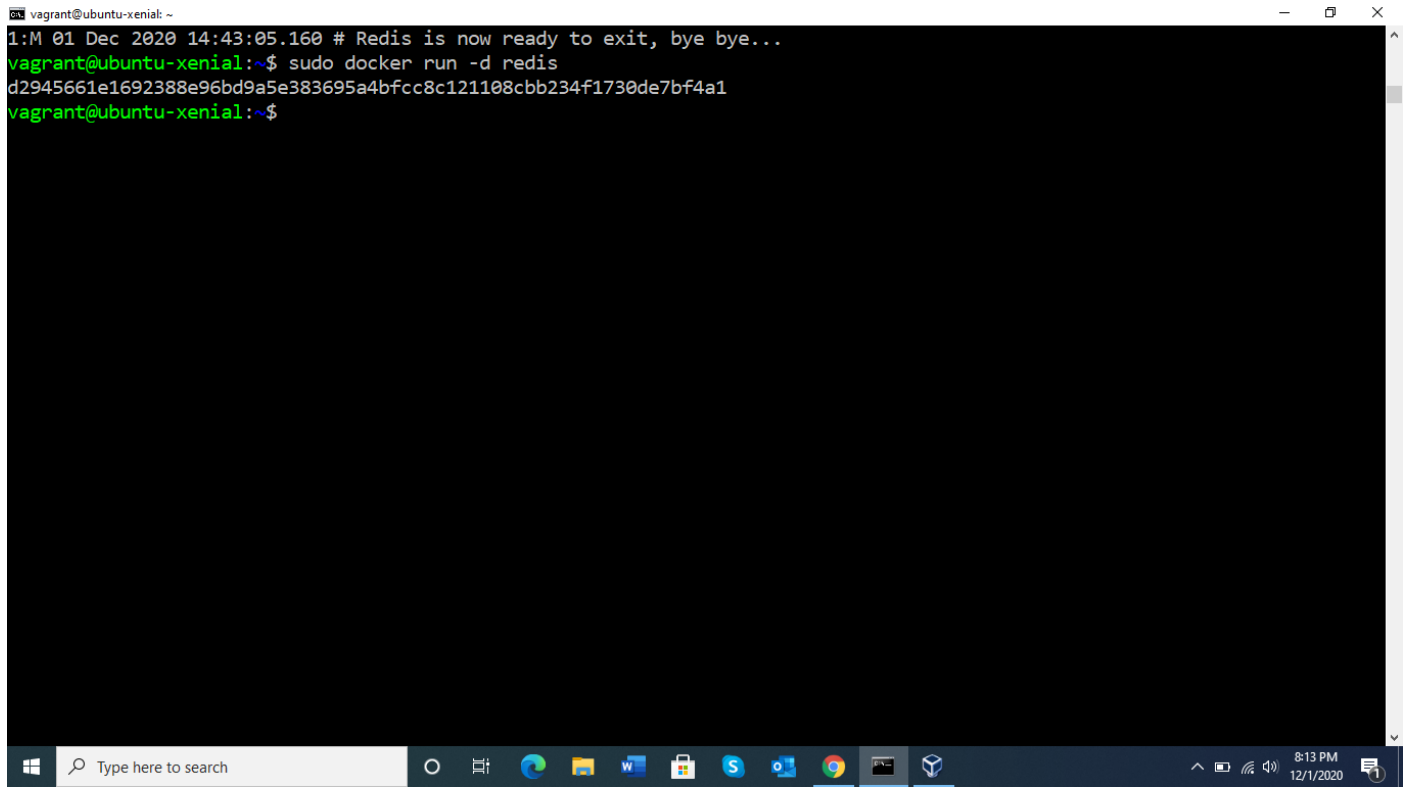


Redis 6.0.9 (00000000/0) 64 bit

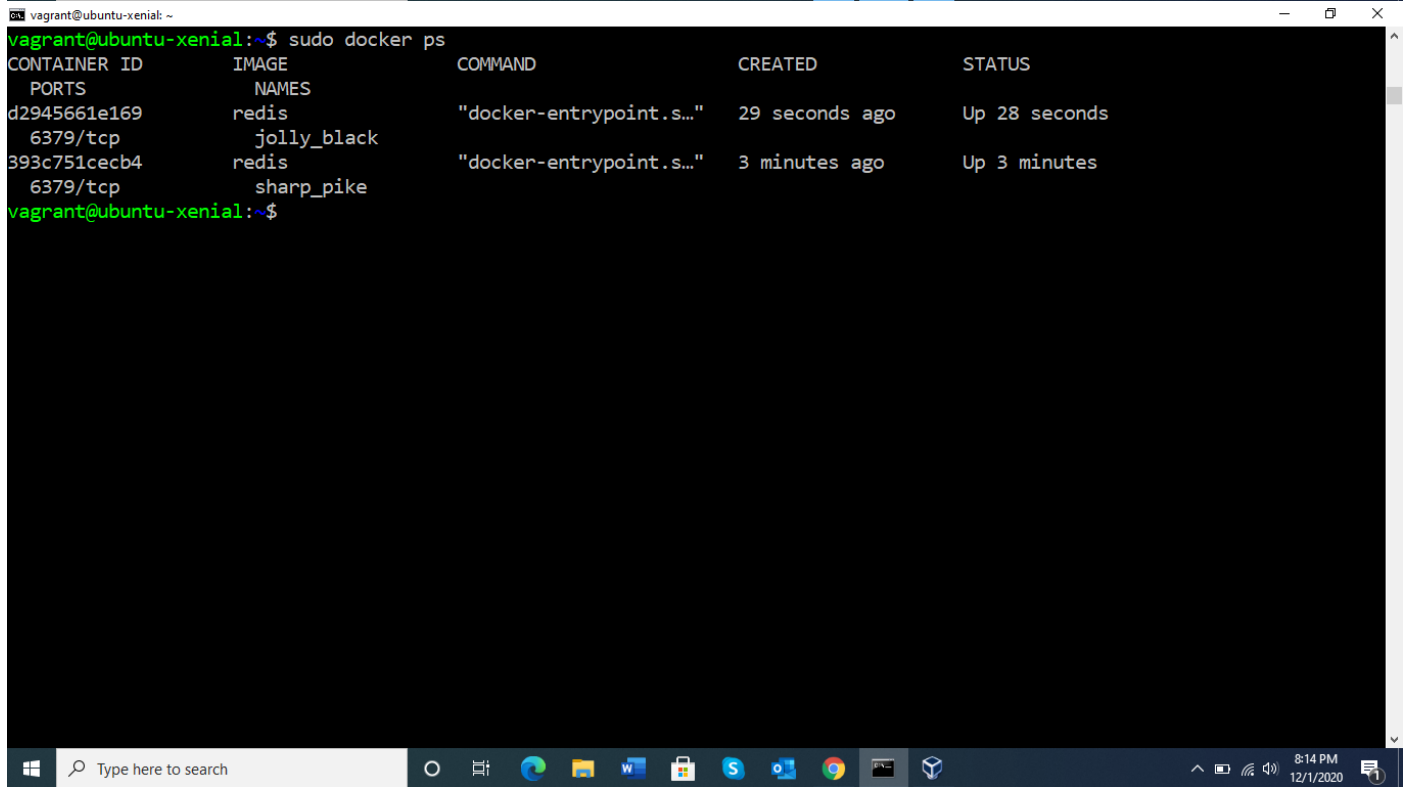
Running in standalone mode
Port: 6379
PID: 1

<http://redis.io>

```
vagrant@ubuntu-xenial: ~  
1:M 01 Dec 2020 14:43:05.160 # Redis is now ready to exit, bye bye...  
vagrant@ubuntu-xenial:~$ sudo docker run -d redis  
d2945661e1692388e96bd9a5e383695a4bfcc8c121108cbb234f1730de7bf4a1  
vagrant@ubuntu-xenial:~$
```



```
vagrant@ubuntu-xenial: ~  
vagrant@ubuntu-xenial:~$ sudo docker ps  
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS  
PORTS              NAMES  
d2945661e169        redis              "docker-entrypoint.s..." 29 seconds ago     Up 28 seconds  
6379/tcp           jolly_black  
393c751cecb4        redis              "docker-entrypoint.s..." 3 minutes ago      Up 3 minutes  
6379/tcp           sharp_pike  
vagrant@ubuntu-xenial:~$
```



vagrant@ubuntu-xenial: ~

vagrant@ubuntu-xenial:~\$ sudo docker inspect 393

```
[
  {
    "Id": "393c751cecb4cc780a2b8c65ccdeb14e0458b3bd4b361017d4273f1a9cc6fa4",
    "Created": "2020-12-01T14:40:33.8006215Z",
    "Path": "docker-entrypoint.sh",
    "Args": [
      "redis-server"
    ],
    "State": {
      "Status": "running",
      "Running": true,
      "Paused": false,
      "Restarting": false,
      "OOMKilled": false,
      "Dead": false,
      "Pid": 5161,
      "ExitCode": 0,
      "Error": "",
      "StartedAt": "2020-12-01T14:40:34.528418234Z",
      "FinishedAt": "0001-01-01T00:00:00Z"
    },
    "Image": "sha256:74d107221092875724ddb06821416295773bee553bbaf8d888ababe9be7b947f",
    "ResolvConfPath": "/var/lib/docker/containers/393c751cecb4cc780a2b8c65ccdeb14e0458b3bd4b361017d4273f1a9cc6fa4/resolv.conf",
    "HostnamePath": "/var/lib/docker/containers/393c751cecb4cc780a2b8c65ccdeb14e0458b3bd4b361017d4273f1a9cc6fa4/hostname.conf"
  }
]
```

Type here to search

8:15 PM
12/1/2020

vagrant@ubuntu-xenial: ~

See 'docker run --help'.

vagrant@ubuntu-xenial:~\$ sudo docker run -d --name redisjolly_black -p 6397 redis:latest
8aa1b2f8989eb079bc529fb52ab40017a4e846d88d0e9de331f85457bede9ffa

vagrant@ubuntu-xenial:~\$

Type here to search

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```
vagrant@ubuntu-xenial: ~  
8aa1b2f8989eb079bc529fb52ab40017a4e846d88d0e9de331f85457bede9ffa  
vagrant@ubuntu-xenial:~$ sudo docker port redisjolly_black 6397  
0.0.0.0:32768  
vagrant@ubuntu-xenial:~$
```

```
vagrant@ubuntu-xenial: ~  
8aa1b2f8989eb079bc529fb52ab40017a4e846d88d0e9de331f85457bede9ffa  
vagrant@ubuntu-xenial:~$ sudo docker port redisjolly_black 6397  
0.0.0.0:32768  
vagrant@ubuntu-xenial:~$ sudo docker ps  
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS  
PORTS              NAMES  
8aa1b2f8989e        redis:latest        "docker-entrypoint.s..." About a minute ago   Up About a minute  
6379/tcp, 0.0.0.0:32768->6397/tcp   redisjolly_black  
d2945661e169        redis               "docker-entrypoint.s..." About an hour ago    Up About an hour  
6379/tcp              jolly_black  
393c751cecb4        redis               "docker-entrypoint.s..." About an hour ago    Up About an hour  
6379/tcp              sharp_pike  
vagrant@ubuntu-xenial:~$
```



```
vagrant@ubuntu-xenial: ~  
vagrant@ubuntu-xenial:~$ sudo docker stop 8aa  
8aa  
vagrant@ubuntu-xenial:~$ sudo docker stop 8aa  
8aa  
vagrant@ubuntu-xenial:~$
```

```
vagrant@ubuntu-xenial: ~  
6379/tcp sharp_pike  
vagrant@ubuntu-xenial:~$ docker stop 8aa  
Got permission denied while trying to connect to the Docker daemon socket at unix:///var/run/docker.sock:  
k: Post http://%2Fvar%2Frun%2Fdocker.sock/v1.40/containers/8aa/stop: dial unix /var/run/docker.sock: co  
nnect: permission denied  
vagrant@ubuntu-xenial:~$ sudo docker stop 8aa  
8aa  
vagrant@ubuntu-xenial:~$ sudo docker stop 8aa  
8aa  
vagrant@ubuntu-xenial:~$ sudo docker ps  
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS  
PORTS              NAMES  
d2945661e169        redis              "docker-entrypoint.s..." About an hour ago   Up About an hour  
6379/tcp            jolly_black  
393c751cecb4        redis              "docker-entrypoint.s..." About an hour ago   Up About an hour  
6379/tcp            sharp_pike  
vagrant@ubuntu-xenial:~$ sudo start d29  
sudo: start: command not found  
vagrant@ubuntu-xenial:~$ sudo docker start d29  
d29  
vagrant@ubuntu-xenial:~$ sudo docker start d29  
d29  
vagrant@ubuntu-xenial:~$ sudo docker ps  
CONTAINER ID        IMAGE               COMMAND             CREATED             STATUS  
PORTS              NAMES  
d2945661e169        redis              "docker-entrypoint.s..." About an hour ago   Up About an hour
```

vagrant@ubuntu-xenial: ~

```
vagrant@ubuntu-xenial:~$ sudo docker attach d29
```

Type here to search



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12/1/2020