Appl Containerization and Orchestration Lab

Experiment 2

AIM : Working with Docker (Basic Commands)

Submitted by-   Submitted to:

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Steps to Complete :
    1. Search a redis image on Dockerhub
        Command : **docker search redis**

```
alpha@Akhands-MacBook-Pro ~ % docker search redis
NAME                                    DESCRIPTION                               STARS   OFFICIAL   AUTOMATED
redis                                   Redis is an open source key-value store that… 11263  [OK]
bitnami/redis                           Bitnami Redis Docker Image                229                [OK]
bitnami/redis-sentinel                  Bitnami Docker Image for Redis Sentinel   39                 [OK]
bitnami/redis-cluster                                                             34
rapidfort/redis                         RapidFort optimized, hardened image for Redi… 15
rapidfort/redis-cluster                 RapidFort optimized, hardened image for Redi… 15
circleci/redis                          CircleCI images for Redis                 14                 [OK]
redis/redis-stack                       redis-stack installs a Redis server with add… 11
ubuntu/redis                            Redis, an open source key-value store. Long-… 11
bitnami/redis-exporter                                                            9
redis/redis-stack-server                redis-stack-server installs a Redis server w… 9
clearlinux/redis                        Redis key-value data structure server with t… 4
ibmcom/redis-ha                                                                   1
bitnami/redis-sentinel-exporter                                                   1
ibmcom/ibm-cloud-databases-redis-operator  Container image for the IBM Operator for Red… 1
vmware/redis-photon                                                               0
greenbone/redis-server                  A redis service container image for the Gree… 0
cimg/redis                                                                        0
ibmcom/redis-ppc64le                                                              0
rancher/redislabs-ssl                                                             0
drud/redis                              redis                                     0                  [OK]
corpusops/redis                         https://github.com/corpusops/docker-images/ 0
blackflysolutions/redis                 Redis container for Drupal and CiviCRM    0
ibmcom/redisearch-ppc64le                                                         0
rapidfort/redis6-ib                     RapidFort optimized, hardened image for Redi… 0
alpha@Akhands-MacBook-Pro ~ % docker run -d redis
```

2. Run Docker Container of Redis Image in background
Command: **docker run -d redis**
Command: **docker ps**

```
● ● ●                          🖥 alpha — -zsh — 120×24
Last login: Thu Aug 25 08:54:03 on ttys000
[alpha@Akhands-MacBook-Pro ~ % docker run  -d redis
05ade0a7ee0d2a3dd5fd19893194ede98a36ca8ccbd66354d19abad13d71aacb
[alpha@Akhands-MacBook-Pro ~ % docker ps
CONTAINER ID   IMAGE    COMMAND             CREATED          STATUS          PORTS       NAMES
05ade0a7ee0d   redis    "docker-entrypoint.s…"  15 seconds ago  Up 14 seconds  6379/tcp   interesting_mcnulty
6a1d134ae56c   redis    "docker-entrypoint.s…"  9 hours ago     Up 9 hours     6379/tcp   peaceful_mclean
alpha@Akhands-MacBook-Pro ~ %
```

3. Run Docker PS and Docker PS –a

```
                                alpha — -zsh — 120×24
Last login: Thu Aug 25 08:54:03 on ttys000
alpha@Akhands-MacBook-Pro ~ % docker run  -d redis
05ade0a7ee0d2a3dd5fd19893194ede98a36ca8ccbd66354d19abad13d71aacb
alpha@Akhands-MacBook-Pro ~ % docker ps
CONTAINER ID   IMAGE      COMMAND              CREATED           STATUS         PORTS          NAMES
05ade0a7ee0d   redis      "docker-entrypoint.s…"   15 seconds ago   Up 14 seconds   6379/tcp   interesting_mcnulty
6a1d134ae56c   redis      "docker-entrypoint.s…"   9 hours ago      Up 9 hours      6379/tcp   peaceful_mclean
alpha@Akhands-MacBook-Pro ~ % docker ps -a
CONTAINER ID   IMAGE           COMMAND              CREATED         STATUS                PORTS        NAMES
05ade0a7ee0d   redis           "docker-entrypoint.s…"   3 minutes ago   Up 3 minutes           6379/tcp   interestin
g_mcnulty
2a8b4bc7d68b   redis           "docker-entrypoint.s…"   9 hours ago     Exited (0) 9 hours ago           clever_kha
yyam
6a1d134ae56c   redis           "docker-entrypoint.s…"   9 hours ago     Up 9 hours             6379/tcp   peaceful_m
clean
af244004d354   webgoat/webgoat "java -Duser.home=/h…"   28 hours ago    Created                          peaceful_b
ell
alpha@Akhands-MacBook-Pro ~ %
```

4. Run Docker Container and take its console
Command: **docker run -it redis /bin/bash**

```
                alpha — com.docker.cli ‹ docker run -it redis /bin/bash — 120×24
alpha@Akhands-MacBook-Pro ~ % docker run  -it redis /bin/bash
root@17b725b9955d:/data# pwd
/data
root@17b725b9955d:/data# ls
root@17b725b9955d:/data#
```

5. Create a Docker V olume and connect it
Command: **docker run -it - v myvol:/data redis /bin/bash**

```
            alpha — com.docker.cli ‹ docker run -it -v myvol:/data redis /bin/bash — 8…
alpha@Akhands-MacBook-Pro ~ % docker run -it -v myvol:/data redis /bin/bash
root@94c7498a8975:/data# ls
root@94c7498a8975:/data# mkdir helloworld
root@94c7498a8975:/data# ls
helloworld
root@94c7498a8975:/data# ls
helloworld
root@94c7498a8975:/data#
```