

DEPLOYING YOUR FIRST DOCKER CONTAINER

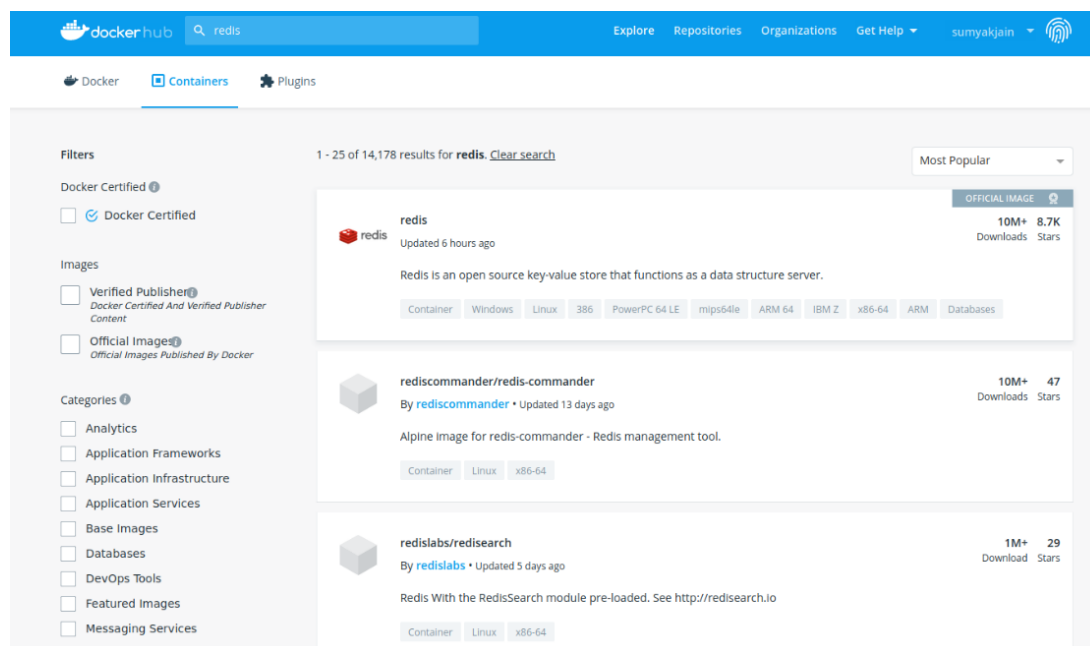
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STEP 1) search for the docker image “redis”

docker search redis

```
sumyak@sumyak-VirtualBox: ~  
sumyak@sumyak-VirtualBox:~$ docker search redis  
NAME                DESCRIPTION  
STARS                OFFICIAL    AUTOMATED  
redis                Redis is an open source key-value store that...  
8740                [OK]  
bitnami/redis        Bitnami Redis Docker Image  
167                [OK]  
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                [OK]  
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...
```

You can also cross check it by searching it on dockerhub



STEP 2) pull the image

docker pull redis

```
sumyak@sumyak-VirtualBox: ~  
REPOSITORY          TAG             IMAGE ID        CREATED  
ubuntu              latest          d70eaf7277ea    2 weeks ago  
sumyak@sumyak-VirtualBox:~$ docker pull redis  
Using default tag: latest  
latest: Pulling from library/redis  
bb79b6b2107f: Pull complete  
1ed3521a5dcb: Pull complete  
5999b99cee8f: Pull complete  
dd17877d8f2d: Pull complete  
4863b56b12a8: Pull complete  
069e700bc397: Pull complete  
Digest: sha256:a0494b60a0bc6de161d26dc2d2f9d2f1c5435e86a9e5d48862a161131affa6bd  
Status: Downloaded newer image for redis:latest  
docker.io/library/redis:latest
```

STEP 3) start the container using

docker run -d redis

this command automatically pull the image and start the container

```
sumyak@sumyak-VirtualBox:~$ docker run -d redis  
0f9e420ad2d8f885df5a8057b147fef391db76bac7f3b217ae67d6600f6bfbd9
```

Check for containers status using

docker ps

```
sumyak@sumyak-VirtualBox:~$ docker ps  
CONTAINER ID   IMAGE     COMMAND                  CREATED  
STATUS        PORTS    NAMES  
0f9e420ad2d8   redis    "docker-entrypoint.s..." About a minute  
ago          Up About a minute 6379/tcp                romantic_wilbur
```

Or

docker ps -a

```
sumyak@sumyak-VirtualBox:~$ docker ps -a  
CONTAINER ID   IMAGE     COMMAND                  CREATED  
STATUS        PORTS    NAMES  
0f9e420ad2d8   redis    "docker-entrypoint.s..." 5 minutes ago  
Up 5 minutes 6379/tcp                romantic_wilbur  
e4f361074fc8   ubuntu   "/bin/bash"             6 days ago  
Exited (255) 6 days ago  wizardly_heisenberg
```

You can also inspect the container using

```
docker inspect <container id | friendly name>
```

using **container id**

```
sumyak@sumyak-VirtualBox: ~  
ago Up About a minute 6379/tcp romantic_wilbur  
sumyak@sumyak-VirtualBox:~$ docker inspect 0f9e  
[  
  {  
    "Id": "0f9e420ad2d8f885df5a8057b147fef391db76bac7f3b217ae67d6600f6bfbdb9"  
    ,  
    "Created": "2020-11-10T05:53:43.805986636Z",  
    "Path": "docker-entrypoint.sh",  
    "Args": [  
      "redis-server"  
    ],  
    "State": {  
      "Status": "running",  
      "Running": true,  
      "Paused": false,  
      "Restarting": false,  
      "OOMKilled": false,  
      "Dead": false,  
      "Pid": 4342,  
      "ExitCode": 0,  
      "Error": "",  
      "StartedAt": "2020-11-10T05:53:44.316189672Z",  
      "FinishedAt": "0001-01-01T00:00:00Z"  
    },  
  },  
]
```

Using **container name**

```
sumyak@sumyak-VirtualBox:~$ docker inspect romantic_wilbur  
[  
  {  
    "Id": "0f9e420ad2d8f885df5a8057b147fef391db76bac7f3b217ae67d6600f6bfbdb9"  
    ,  
    "Created": "2020-11-10T05:53:43.805986636Z",  
    "Path": "docker-entrypoint.sh",  
    "Args": [  
      "redis-server"  
    ],  
    "State": {  
      "Status": "running",  
      "Running": true,  
      "Paused": false,  
      "Restarting": false,  
      "OOMKilled": false,  
      "Dead": false,  
      "Pid": 4342,  
      "ExitCode": 0,  
      "Error": "",  
      "StartedAt": "2020-11-10T05:53:44.316189672Z",  
      "FinishedAt": "0001-01-01T00:00:00Z"  
    },  
  },  
]
```

You can also see container log using

```
docker logs <container id | friendly name>
```

```
sumyak@sumyak-VirtualBox:~$ docker logs romantic_wilbur  
1:C 10 Nov 2020 05:53:44.325 # 000000000000 Redis is starting o000o000o000o  
1:C 10 Nov 2020 05:53:44.325 # Redis version=6.0.9, bits=64, commit=00000000, mo  
dified=0, pid=1, just started  
1:C 10 Nov 2020 05:53:44.325 # Warning: no config file specified, using the defa  
ult config. In order to specify a config file use redis-server /path/to/redis.co  
nf  
1:M 10 Nov 2020 05:53:44.328 * Running mode=standalone, port=6379.  
1:M 10 Nov 2020 05:53:44.329 # Server initialized  
1:M 10 Nov 2020 05:53:44.329 # WARNING overcommit_memory is set to 0! Background  
save may fail under low memory condition. To fix this issue add 'vm.overcommit_  
memory = 1' to /etc/sysctl.conf and then reboot or run the command 'sysctl vm.o  
vercommit_memory=1' for this to take effect.  
1:M 10 Nov 2020 05:53:44.329 * Ready to accept connections
```

STEP 4) access redis or any other container using

```
docker run -d --name nameofcontainer -p port no. : port no. image name: version
```

(this gives dynamic ip to your container)

You can also check it using

```
docker port name portno.
```

```
sumyak@sumyak-VirtualBox:~$ docker run -d --name sumyakredis -p 6379:6379 redis:latest
a9b661419bb237b0a05959468720c07ab8a4932cb066a339464f7236064cd1a8
sumyak@sumyak-VirtualBox:~$ docker run -d --name SumyakredisDynamic -p 6379 redis:latest
d5a04ec65179ccd5737ed63bb453a6b6975a64a3bb026f34c7baf38b029bde60
sumyak@sumyak-VirtualBox:~$ docker port SumyakredisDynamic 6379
0.0.0.0:32768
sumyak@sumyak-VirtualBox:~$ docker ps
```

CONTAINER ID	IMAGE	COMMAND	NAMES	CREATED
d5a04ec65179	redis:latest	"docker-entrypoint.s..."	SumyakredisDynamic	30 seconds ago
Up 29 seconds	0.0.0.0:32768->6379/tcp			
a9b661419bb2	redis:latest	"docker-entrypoint.s..."	sumyakredis	2 minutes ago
Up 2 minutes	0.0.0.0:6379->6379/tcp			
0f9e420ad2d8	redis	"docker-entrypoint.s..."	romantic_wilbur	9 minutes ago
Up 9 minutes	6379/tcp			

STEP 5) you can store image logs and data in a directory also using

```
docker run -d --name containername -v directorylocation :/ data imagename
```

```
sumyak@sumyak-VirtualBox:~$ docker run -d --name sumyakredismapped -v /home/CG:/data redis
69a9ea2dfd758fc68f07fb5d0d8ccbee89d47a9a8585e0c19589141c3e201cf5
```

STEP 6) you can also run a container and see status in a single command

```
docker run imagename ps
```

```
sumyak@sumyak-VirtualBox:~$ docker run ubuntu ps
```

PID	TTY	TIME	CMD
1	?	00:00:00	ps

Stop the container using

```
docker stop containername
```