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**COURSE – B.TECH CS CCV**

**SECTION – O-20**

**UNIVERSITY ROLL – 201510020**

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**DOCKER COMMANDS ASSIGNMENT**

- **Docker basic commands**

- docker -v
  - docker --version
  - docker info
  - docker --help
  - docker run --help
  - docker login
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- **Docker images command**

docker pull <image name> (to pull down the image of ubuntu os from docker hub)

docker images -q (to know image ids)

docker rmi <image id> (to remove one single image)

docker image ls (to list out the images)

docker rmi <image id1><image id2><image id3>.....<image idn> (to remove multiple images in one go)

docker rmi -f \$(docker images -a -q) (to forcefully remove all images)

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- **Docker container commands**

docker run ubuntu

docker container ls -a (to list out the containers available in the terminal)

docker ps -a (to check the running container)

docker container run -it ubuntu /bin/bash (to redirect in a particular os image)

docker container rm <id1><id2><id3>.....<idn> (to remove multiple container in one go)

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## OUTPUTS

```
[node1] (local) root@192.168.0.8 ~
$ docker -v
Docker version 20.10.17, build 100c701
[node1] (local) root@192.168.0.8 ~
$ docker --version
Docker version 20.10.17, build 100c701
```

```
[node1] (local) root@192.168.0.8 ~
$ docker info
Client:
 Context:    default
 Debug Mode: false
 Plugins:
  buildx: Docker Buildx (Docker Inc., v0.8.2)
  compose: Docker Compose (Docker Inc., v2.6.1)

Server:
 Containers: 0
  Running: 0
  Paused: 0
  Stopped: 0
 Images: 0
 Server Version: 20.10.17
 Storage Driver: overlay2
  Backing Filesystem: xfs
  Supports d_type: true
  Native Overlay Diff: true
```

```
[node1] (local) root@192.168.0.8 ~
$ docker --help

Usage: docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:
  --config string      Location of client config files (default "/root/.docker")
  -c, --context string  Name of the context to use to connect to the daemon (overrides DOCKER_HOST env var and default
                        context set with "docker context use")
  -D, --debug           Enable debug mode
  -H, --host list       Daemon socket(s) to connect to
  -l, --log-level string Set the logging level ("debug"|"info"|"warn"|"error"|"fatal") (default "info")
  --tls                Use TLS; implied by --tlsverify
  --tlscacert string    Trust certs signed only by this CA (default "/root/.docker/ca.pem")
  --tlscert string       Path to TLS certificate file (default "/root/.docker/cert.pem")
  --tlskey string        Path to TLS key file (default "/root/.docker/key.pem")
  --tlsverify           Use TLS and verify the remote
  -v, --version         Print version information and quit
```

```
[node1] (local) root@192.168.0.8 ~
$ docker run --help

Usage: docker run [OPTIONS] IMAGE [COMMAND] [ARG...]

Run a command in a new container

Options:
  --add-host list      Add a custom host-to-IP mapping (host:ip)
  -a, --attach list     Attach to STDIN, STDOUT or STDERR
  --blkio-weight uint16 Block IO (relative weight), between 10 and 1000, or 0 to disable (default 0)
  --blkio-weight-device list Block IO weight (relative device weight) (default [])
  --cap-add list        Add Linux capabilities
  --cap-drop list       Drop Linux capabilities
  --cgroup-parent string Optional parent cgroup for the container
  --cgroupns string      Cgroup namespace to use (host|private)
                        'host': Run the container in the Docker host's cgroup namespace
                        'private': Run the container in its own private cgroup namespace
                        '': Use the cgroup namespace as configured by the
                           default-cgroupns-mode option on the daemon (default)
  --cidfile string       Write the container ID to the file
  --cpu-period int        Limit CPU CFS (Completely Fair Scheduler) period
```

```
[node1] (local) root@192.168.0.8 ~
$ docker login
Login with your Docker ID to push and pull images from Docker Hub. If you don't have a Docker ID, head over to https://hub.docker.com to create one.
Username: sneha2004
Password:
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store

Login Succeeded
```

```
[node1] (local) root@192.168.0.8 ~
$ docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
2b55860d4c66: Pull complete
Digest: sha256:20fa2d7bb4de7723f542be5923b06c4d704370f0390e4ae9e1c833c8785644c1
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
```

```
[node1] (local) root@192.168.0.8 ~
$ docker images -q
4f9baf941f8e
5c284e5e8296
2dc39ba059dc
5e77d84df442
ff3b5098b416
dc7b40a0b05d
2b7d6430f78d
```

```
[node1] (local) root@192.168.0.8 ~
$ docker image ls
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
python        latest    4f9baf941f8e   3 days ago     921MB
mariadb       latest    5c284e5e8296   9 days ago     384MB
ubuntu        latest    2dc39ba059dc   9 days ago     77.8MB
wordpress     latest    5e77d84df442   10 days ago    609MB
mysql         latest    ff3b5098b416   11 days ago    447MB
redis         latest    dc7b40a0b05d   2 weeks ago    117MB
nginx         latest    2b7d6430f78d   2 weeks ago    142MB
```

```
[node1] (local) root@192.168.0.8 ~
$ docker rmi 4f9ba 5c284 2dc39
Untagged: python:latest
Untagged: python@sha256:5bbf8c1d6f7c0946e405587c502f316239916caba98b2dd55a31f0fd465103dc
Deleted: sha256:4f9baf941f8e5b400c7905b316693ddfa423bfce3fc4ff1d1ed99887c5c86c3
Deleted: sha256:12952835d73d5dbb5347ddfcf2fdd6b650e87d8f54dd139214c50e30885c7bbd
Deleted: sha256:6931c7aa22f19d2fd36fed39f9ec175f4d77414c7844d5f6fdf6a51ec2a2a38a
Deleted: sha256:cb03df572f95d67e7dd977e77b693c8263aa57f51518b8414201c9d1a00abddd
Deleted: sha256:f341a4ac8ccdf6d5f0f83778baa4373018e33d6ff82b86b811d8f32c6a7e5b38
Deleted: sha256:a08dcc55dea16cd2435c2e80f85f27cdef97a5e9d5f11edca153170b7db02ed5
Deleted: sha256:0f91703ff2b5c418746fa0fb2a3ce430ea9304729bb507efcd6364165a5e68f6
Deleted: sha256:2954372db39d72097fa965c95e39b50eed5bd857eb2a2152d645412262c48dc3
Deleted: sha256:1abc43470acd52071fc033fa69c36b76adf643e5f06f294b7f64b2d530d59037
Deleted: sha256:655ed1b7a4286ce965b8942644f665a3aeafac315f023b3d75fabdbd4be12dd0
Untagged: mariadb:latest
Untagged: mariadb@sha256:ca04948aca834499f728692520eff82917de1d768b47751ba4dd0fc5f261c8e7
Deleted: sha256:5c284e5e829612878511aa9fc0c383708c5a68f2167fa77a515bc2e4b2a35bf2
Deleted: sha256:e3d74986c5d4a6d9491033bfc0efa2e06ec377c18e677b37e6a9fa65fc71c485
Deleted: sha256:d4a8796c60f57eeb9265ddfcf9e1e0dd5c8e3f7585a271dcebfe87f50c05634d
Deleted: sha256:041e630d4e358a0e3a227700c01bb4ca8aaf7eacd6fcbbebf41ff9dcf80319e
```

```
[node1] (local) root@192.168.0.8 ~
$ docker run ubuntu
Unable to find image 'ubuntu:latest' locally
latest: Pulling from library/ubuntu
2b55860d4c66: Pull complete
Digest: sha256:20fa2d7bb4de7723f542be5923b06c4d704370f0390e4ae9e1c833c8785644c1
Status: Downloaded newer image for ubuntu:latest
```

```
[node1] (local) root@192.168.0.8 ~
$ docker container ls -a
CONTAINER ID   IMAGE     COMMAND   CREATED        STATUS      PORTS      NAMES
ca5d957b1f6e   ubuntu   "bash"    38 seconds ago Exited (0) 36 seconds ago          tender_haslett
```

```
[node1] (local) root@192.168.0.8 ~
$ docker ps -a
CONTAINER ID   IMAGE     COMMAND   CREATED        STATUS      PORTS      NAMES
ca5d957b1f6e   ubuntu   "bash"    About a minute ago Exited (0) About a minute ago          tender_haslett
```

```
[node1] (local) root@192.168.0.8 ~
$ docker container run -it ubuntu /bin/bash
root@19325b5e9ad2:/#
```

```
[node1] (local) root@192.168.0.8 ~  
$ docker container rm 19325 ca5d9  
19325  
ca5d9  
[node1] (local) root@192.168.0.8 ~  
$ docker ps -a  
CONTAINER ID    IMAGE             COMMAND          CREATED   STATUS    PORTS     NAMES  
[node1] (local) root@192.168.0.8 ~
```

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