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Experiment No. 3.3

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Branch: MCA - CCD **Section/Group**: 22MCD-1/ Grp B
Semester: III
Subject Name: Containerization With Docker **Subject Code:** 22CAH-742

1. **Aim/Overview of the practical:** Cleaning Up Old Containers and Docker Images.

2. **Code for experiment/practical:**

To clean up old containers and Docker images, you can use the following commands:

- docker container prune: Removes all stopped containers.
- docker image prune: Removes all dangling images.
- docker system prune: Removes all unused images, containers, volumes, and networks.

Important: Be careful when using the system prune command, as it can remove all unused resources, including volumes. If you are unsure about what will be removed, you can use the -a flag to display all resources that will be removed before confirming the operation.

Cleaning up Old Container:

- First check container that are available: $docker ps -a

```
PS C:\Users\Pinda> docker ps -a
CONTAINER ID   IMAGE     COMMAND                  CREATED          STATUS                       PORTS     NAMES
d2682aeb8e7f   mysql     "docker-entrypoint.s…"   16 seconds ago   Exited (1) 13 seconds ago              focused_vaughan
141cd4ee32cb   python    "python3"                19 seconds ago   Exited (0) 17 seconds ago              elated_easley
33e0f54e1cd0   ubuntu    "/bin/bash"              24 seconds ago   Exited (0) 23 seconds ago              blissful_thompson
```

- Then use docker container prune to clean up old container: $docker container prune
  - Their will be WARNING that This will remove all stopped containers.
  - Are you sure you want to continue? [y/N]
  - Press Y for yes else N, then Enter.

```
PS C:\Users\Pinda> docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] y
Deleted Containers:
d2682aeb8e7f82eb11f6d81d176c55cff6d78754bce4b1f50f58c500da57f7ae
141cd4ee32cb7d98e2ac5dd3e61780bbc7f90ce0df2077e23a092e79577afba8
33e0f54e1cd090b990a29d15acd5947966c3699082e0a8d321e31d42cb7efef2

Total reclaimed space: 30.37kB
```

Cleaning up Old Images:

- First check images that are available: $docker images

```
PS C:\Users\Pinda> docker images
REPOSITORY              TAG       IMAGE ID       CREATED        SIZE
nginx                   latest    c20060033e06   4 days ago     187MB
localhost:5000/nginx1   latest    c20060033e06   4 days ago     187MB
registry                2         ff1857193a0b   2 weeks ago    25.4MB
registry                latest    ff1857193a0b   2 weeks ago    25.4MB
ubuntu                  latest    e4c58958181a   4 weeks ago    77.8MB
python                  latest    3c055746a2cc   4 weeks ago    1.02GB
mysql                   latest    2d9aad1b5856   3 months ago   574MB
openjdk                 latest    71260f256d19   8 months ago   470MB
```

- Then use docker image prune to clean up old dangling images: $docker image prune
  - Their will be WARNING that This will remove all dangling images.
  - Are you sure you want to continue? [y/N]
  - Press Y for yes else N, then Enter.

```
PS C:\Users\Pinda> docker image prune
WARNING! This will remove all dangling images.
Are you sure you want to continue? [y/N] y
Total reclaimed space: 0B
```

- Then use docker image prune to clean up all available images: $docker image prune -a
  - Their will be WARNING that This will remove all images.
  - Are you sure you want to continue? [y/N]
  - Press Y for yes else N, then Enter.

```
PS C:\Users\Pinda> docker image prune -a
WARNING! This will remove all images without at least one container associated to them.
Are you sure you want to continue? [y/N] y
Deleted Images:
untagged: ubuntu:latest
untagged: ubuntu@sha256:2b7412e6465c3c7fc5bb21d3e6f1917c167358449fecac8176c6e496e5c1f05f
deleted: sha256:e4c58958181a5925816faa528ce959e487632f4cfd192f8132f71b32df2744b4
deleted: sha256:256d88da41857db513b95b50ba9a9b28491b58c954e25477d5dad8abb465430b
```

3. Learning outcomes (What I have learned):

a) Understand the Docker Prune command.
b) Understand to run prune command with images and container.
c) Understand to free up the space by pruning the unnecessary data or storage.