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IT | CLOUD ENGINEER

## Docker Advance Commands

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### 1. What is the command to rename the container?

To rename a container using docker container rename <Container ID or Container name>

docker rename <My\_Container> <My\_New Container>

docker rename e-com-rename e-com-rename-Mar19

```
root@thinkpad-e14-gen-3:~# docker ps --latest
CONTAINER ID   IMAGE                COMMAND                  CREATED        STATUS        PORTS        NAMES
a0ba2889f8e4   e-commerce-update    "docker-entrypoint.s..." 35 hours ago   Up About a minute   4000/tcp     e-com-rename
root@thinkpad-e14-gen-3:~# docker rename e-com-rename e-com-rename-Mar19
root@thinkpad-e14-gen-3:~# docker ps --latest
CONTAINER ID   IMAGE                COMMAND                  CREATED        STATUS        PORTS        NAMES
a0ba2889f8e4   e-commerce-update    "docker-entrypoint.s..." 35 hours ago   Up 2 minutes       4000/tcp     e-com-rename-Mar19
root@thinkpad-e14-gen-3:~#
```

### 12. What is the command to free up some disk space?

To remove unused docker container by using docker prune command

To remove stopped container (A Stopped container writable layer still using disk space)

1<sup>st</sup> we need to check that docker disk space usage by using docker system df -v

It will give us a complete information about the docker

- 1> Image space usage
- 2> Container space usage
- 3> Volume space usage
- 4> Build Cache usage

#### 1> Image space usage

```
root@thinkpad-e14-gen-3:~# docker system df -v
Images space usage:

REPOSITORY          TAG                IMAGE ID           CREATED           SIZE           SHARED SIZE      UNIQUE SIZE      CONTAINERS
order-management     latest            9873b79145c1      2 months ago     740MB           0B               740.4MB         3
product-inventory    latest            b15b2c834462      2 months ago     138MB           74.82MB         62.79MB         2
product-catalog       latest            b791f125ecd3      2 months ago     917MB           911.8MB         4.945MB         2
shipping-and-handling latest            ef9996f0a99e      2 months ago     846MB           0B              845.6MB         2
contact-support-team latest            6888a281b1cb      2 months ago     136MB           0B              136.2MB         2
profile-management    latest            3ea836a36d3e      2 months ago     917MB           911.8MB         5.626MB         2
e-commerce-ui-tag     latest            6da7598b985c      2 months ago     1.34GB          911.8MB         424.6MB         5
custom_nginx_with_permissions latest            6357712cec0c      2 months ago     192MB           191.8MB         1.643kB         0
jenkins/jenkins      lts               44c1caefd796      2 months ago     468MB           0B              468.1MB         0
nginx                 latest            f876bfcc63        3 months ago     192MB           191.8MB         0B              2
open-liberty          latest            231cf8700568      6 months ago     685MB           0B              685MB           0
angular-application1 <none>            a6a89ca6a76       6 months ago     63.2MB          62.88MB         291.8kB         2
<none>                2d841be2837b     6 months ago     65.2MB          62.88MB         2.343MB         1
angular-base-aug17    latest            c854f186ee8e      7 months ago     2.07GB          1.088GB         985.5MB         1
lara-app              latest            08d1bae3ee27      7 months ago     302MB           263MB           39.26MB         4
45541553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14 <none>            a83337a68652      7 months ago     263MB           263MB           0B              3
<none>                6ffd5ebfe2ae     7 months ago     333MB           170.3MB         162.4MB         0
45541553703.dkr.ecr.us-west-2.amazonaws.com/angular-base     latest            38a01ab4de0c      7 months ago     2.07GB          2.074GB         0B              5
45541553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-latest latest            3130b830cd88      7 months ago     310MB           310.3MB         0B              3
mahendrakumar/laravelapplication latest            072d02d091aa      7 months ago     656MB           74.78MB         581.1MB         0
bash                  latest            bd4206c5bc03      7 months ago     14.4MB          7.798MB         6.594MB         0
mahendrakumar/angular-application latest            97e73120a64d      7 months ago     1.66GB          1.088GB         568.6MB         1
angular-application   update           e34eaaec9eab      8 months ago     62.9MB          62.88MB         0B              2
httpd                 latest            dad6ca1caf78      8 months ago     148MB           0B              148.2MB         2
node                  18               15babac4ad7bd     8 months ago     1.09GB          1.088GB         0B              1
mysql                 5.7              5107333e08a8      15 months ago    501MB           0B              501.4MB         1
hello-world           latest            d2c94e258dc3      22 months ago    13.3kB          0B              13.26kB         1
```

These objects are not cleared by default unless you explicitly ask docker to do so.

This can cause docker to use extra disk space.

## 2> Container space usage

Containers space usage:									
CONTAINER ID	IMAGE	COMMAND	LOCAL VOLUMES	SIZE	CREATED	STATUS	NAMES		
a0ba2889f8e4	e-commerce-update	"docker-entrypoint.s..."	0	5B	35 hours ago	Up 19 minutes	e-con-rename-Mar19		
r4d4ef40b84	e-commerce-update	"docker-entrypoint.s..."	0	0B	35 hours ago	Exited (137) 17 hours ago	condescending_bartl		
333566c6505d	e-commerce-update	"docker-entrypoint.s..."	0	0B	35 hours ago	Exited (137) 17 hours ago	hungry_mcLean		
bc5929dc9747	ed68ca4134c3	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	exciting_neumann		
c4f8d90ab0cc	ed68ca4134c3	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	unruffled_lalande		
d52804194ca8	ed68ca4134c3	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	ecstatic_gagarin		
a12c835634e5	05824990df31	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	awesome_dubinsky		
014194a69661	05824990df31	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	dreamy_taussig		
33fab7d431fe	05824990df31	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	eager_Bohr		
9a088c76e703	05824990df31	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	quirky_blackwell		
aa2224e7864a	05824990df31	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	determined_chaplygi		
n									
ae7427fb7515	05824990df31	"python app.py"	0	0B	2 days ago	Exited (2) 2 days ago	laughing_torvalds		
9c9e99f545e5	e34eaaec9eab	"httpd-foreground"	0	0B	2 days ago	Created	Angular_Update		
20195c665396	ecommerce-ui	"docker-entrypoint.s..."	0	0B	6 weeks ago	Up 48 minutes	ecommerce-ui2		
def35cf22b4e	product-inventory	"python3 inventory_a..."	0	96.3kB	6 weeks ago	Up 48 minutes	product-inventory2		
ccc0407d896d	product-catalog	"docker-entrypoint.s..."	0	0B	6 weeks ago	Up 48 minutes	product-catalog2		
b33cd333983e	contact-support-team	"python3 server.py"	0	96.5kB	6 weeks ago	Up 48 minutes	contact-support-tea		
m2									
4a0f60b2d075	order-management	"/usr/local/bin/mvn-..."	0	50MB	6 weeks ago	Up 48 minutes	order-management2		
34fd9942b7c	profile-management	"docker-entrypoint.s..."	0	0B	6 weeks ago	Up 48 minutes	profile-management2		
052d01081e9b	shipping-and-handling	"go run main.go"	0	164MB	6 weeks ago	Exited (2) 2 weeks ago	shipping-and-handl		
ng2									
9b0146dc6cc9b	15babca4d7bd	"docker-entrypoint.s..."	0	0B	6 weeks ago	Exited (137) 6 weeks ago	Control_group		
a3f9d99763d7	9873b79145c1	"/usr/local/bin/mvn-..."	0	49.9MB	6 weeks ago	Exited (143) 6 weeks ago	Testing		
4bc219f9e99e	97c73120a4d4	"docker-entrypoint.s..."	0	109MB	6 weeks ago	Exited (137) 6 weeks ago	my_lifecycle		
b0f6bd342263	08d1bae3ee27	"apache2ctl -D FOREG..."	0	1.63kB	6 weeks ago	Exited (137) 6 weeks ago	Laravel1		
b7e4cacd5591	08d1bae3ee27	"ping google.com"	0	0B	6 weeks ago	Created	Laravel		
40e570b7140c	angular-base-aug17	"docker-entrypoint.s..."	0	5B	6 weeks ago	Exited (137) 6 weeks ago	test		
d420ae2ee4da	ecommerce-ui	"docker-entrypoint.s..."	0	0B	2 months ago	Exited (137) 2 months ago	ecommerce-ui		
7322bccc32ed	order-management	"/usr/local/bin/mvn-..."	0	49.9MB	2 months ago	Exited (143) 2 months ago	order-management		
7e3803b7903f	product-inventory	"python3 inventory_a..."	0	96.3kB	2 months ago	Exited (137) 2 months ago	product-inventory		
040c87d0dbfc	product-catalog	"docker-entrypoint.s..."	0	0B	2 months ago	Exited (137) 2 months ago	product-catalog		
71c72d3853co	shipping-and-handling	"go run main.go"	0	131MB	2 months ago	Exited (2) 2 months ago	shipping-and-handl		
ng									
cfai6df9f87b	contact-support-team	"python3 server.py"	0	96.5kB	2 months ago	Exited (137) 2 months ago	contact-support-tea		
n									
40f61c49cd54	profile-management	"docker-entrypoint.s..."	0	0B	2 months ago	Exited (137) 2 months ago	profile-managemens		
560d31424d9a	nginx	"/docker-entrypoint..."	1	1.09kB	2 months ago	Exited (0) 2 months ago	mahl		
7824e8a69578	nginx	"/docker-entrypoint..."	0	1.09kB	2 months ago	Exited (137) 2 months ago	appl		
ae6c5de0bf88	htpdp	"httpd-foreground"	0	31B	3 months ago	Exited (0) 2 months ago	web2		
340f608f490d	htpdp	"httpd-foreground"	0	0B	3 months ago	Exited (0) 3 months ago	web1		
1fc27fe0ef27	hello-world	"/hello"	0	0B	3 months ago	Exited (0) 3 months ago	romantic_payne		
93fe2a29a50c	angular-application1	"httpd-foreground"	0	23B	6 months ago	Exited (0) 6 months ago	crazy_diffie		
812378133d33	aa0a9c0aa076	"httpd-foreground"	0	311B	6 months ago	Exited (255) 6 months ago	angular-application		
latest									
39f08c2229f3	2da41be2837b	"httpd-foreground"	0	94B	6 months ago	Exited (0) 6 months ago	angular-application		
39f08c2229f3									

## 3> Volume space usage

Local Volumes space usage:			
VOLUME NAME	LINKS	SIZE	
mahl_test	0	576B	
ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24	0	0B	
f0c6df78901c36617b51cee74eb912eb6859378fddf1db5920aa09fe59e88944fd	0	113.4MB	
4f654327f5fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06	0	0B	
83d4a7e59b548f3d2e8bed318f6986d3ae5131f1fe69815ac9c3a028665bfc7c1	1	1.112KB	
Bedcf5b5f4c08dd0c380f239499142b728af55d14e13bb3b9bac56014dbf0f8	0	0B	

## 4> Build Cache usage

Build cache usage: 26.83GB							
CACHE ID	CACHE TYPE	SIZE	CREATED	LAST USED	USAGE	SHARED	
d1v5Rkq570vy	regular	49B	7 months ago	7 months ago	1	true	
lmy1abk6do3g	regular	6.2kB	7 months ago	7 months ago	1	true	
qk3j1uqmf8zi	regular	21.2MB	7 months ago	7 months ago	1	true	
m4qt9zxqgxo	regular	1.77kB	7 months ago	7 months ago	1	true	
oab61akn2zx6	regular	0B	7 months ago	7 months ago	1	true	
nth1744mx94i	regular	0B	7 months ago	7 months ago	1	true	
nlnv5y0i2fv9	regular	85.3MB	7 months ago	7 months ago	1	true	
j2djtiibd5izh	regular	20.9kB	7 months ago	7 months ago	1	true	
05tm5iavi45h	regular	334B	7 months ago	7 months ago	1	true	
rp4eqmpacvqh	regular	54.4MB	7 months ago	7 months ago	1	false	
1ioviLy9kn5s	regular	54.4MB	7 months ago	7 months ago	1	true	
4cfhhzz0sdmm	regular	22.6MB	7 months ago	7 months ago	2	true	
yawLqib9kzuy	regular	1.08kB	7 months ago	7 months ago	4	true	
wg42dqbn53mm	regular	1.73MB	7 months ago	7 months ago	1	false	
x81gv27x12ig	regular	0B	7 months ago	7 months ago	1	true	
evhqLb8dc30j	regular	0B	7 months ago	7 months ago	1	true	
fn1wfnz6mlxk	regular	0B	7 months ago	7 months ago	1	true	
q8welxseid2g	regular	0B	7 months ago	7 months ago	1	true	
tftp6g1ml7yz5	regular	0B	7 months ago	7 months ago	1	true	
axc73u4smnax	regular	0B	7 months ago	7 months ago	1	true	
tnogL9q2bqm0	regular	0B	7 months ago	7 months ago	1	true	
6xjzghe2wzug	regular	0B	7 months ago	7 months ago	1	false	
ad7kuijuhbrh	regular	54.5MB	7 months ago	7 months ago	1	false	
lhes3desd7y0	regular	0B	7 months ago	7 months ago	1	true	
kk38qhnidkww	regular	0B	7 months ago	7 months ago	1	true	
n1o75pci4qdo	regular	334B	7 months ago	7 months ago	1	true	
l4j19eqwuabx	source.local	0B	7 months ago	7 months ago	6	false	
o3j1rht0m8vvp8	regular	86.5MB	7 months ago	7 months ago	1	true	
fzcmcag9gsj8	regular	6.14MB	7 months ago	7 months ago	1	true	
kr2acur6dye	regular	6.2kB	7 months ago	7 months ago	1	true	
ljriydhswncr	regular	20.9kB	7 months ago	7 months ago	1	true	
7zpuhg6bj9	source.local	1.41kB	7 months ago	7 months ago	6	false	
mwL00at4mfsk	source.local	2.61kB	7 months ago	7 months ago	6	false	
p6jnt61r8mx1	regular	1.08kB	7 months ago	7 months ago	1	true	
bfzjmslm5rr7	regular	934kB	7 months ago	7 months ago	2	true	
q2p6ej4kid42	regular	0B	7 months ago	7 months ago	3	true	
4qfljexmqmaa	regular	0B	7 months ago	7 months ago	3	true	
vt8gk9mzqbu0	regular	0B	7 months ago	7 months ago	3	true	
bqjpb0brepx32	regular	0B	7 months ago	7 months ago	3	true	
vnsplm9pu12g	regular	0B	7 months ago	7 months ago	3	true	
di7zssu9wleq	regular	0B	7 months ago	7 months ago	3	true	
mjhkvzhz0oxa	regular	0B	7 months ago	7 months ago	2	true	
wc1b5t5k3ptl	regular	0B	7 months ago	7 months ago	2	true	
0oxwf3ybuaz2f	regular	0B	7 months ago	7 months ago	2	true	
o4llgosq2ff6	regular	0B	7 months ago	7 months ago	2	true	
l5jieztzn6op	regular	0B	7 months ago	7 months ago	2	true	
0ljsu8e50nt6	regular	0B	7 months ago	7 months ago	1	true	

## 1> Image space usage -> docker image prune

```
root@thinkpad-e14-gen-3:~# docker images
REPOSITORY                                TAG                IMAGE ID           CREATED           SIZE
order-management                         latest            9873b79145c1      2 months ago    740MB
mahendrakumarvishwanathan/order-management latest            9873b79145c1      2 months ago    740MB
product-inventory                       latest            b15b2c834462      2 months ago    138MB
mahendrakumarvishwanathan/e-commerce-project Jan10             b15b2c834462      2 months ago    138MB
mahendrakumarvishwanathan/product-inventory latest            b15b2c834462      2 months ago    138MB
product-catalog                         latest            b791f125ecd3      2 months ago    917MB
mahendrakumarvishwanathan/product-catalog latest            b791f125ecd3      2 months ago    917MB
mahendrakumarvishwanathan/shipping-and-handling latest            ef9996f0a99e      2 months ago    846MB
shipping-and-handling                   latest            ef9996f0a99e      2 months ago    846MB
contact-support-team                     latest            6888a281b1cb      2 months ago    136MB
mahendrakumarvishwanathan/contact-support-team latest            6888a281b1cb      2 months ago    136MB
mahendrakumarvishwanathan/profile-management latest            3ea836a36d3e      2 months ago    917MB
profile-management                      latest            3ea836a36d3e      2 months ago    917MB
e-commerce-ui                           latest            6da7598b985c      2 months ago    1.34GB
e-commerce-update                       latest            6da7598b985c      2 months ago    1.34GB
ecommerce-ui                            latest            6da7598b985c      2 months ago    1.34GB
mahendrakumarvishwanathan/ecommerce-ui latest            6da7598b985c      2 months ago    1.34GB
e-commerce-ui-tag                       latest            6da7598b985c      2 months ago    1.34GB
custom_nginx_with_permissions            latest            6357712ccec0c     2 months ago    192MB
jenkins/jenkins                         lts               44c1caefd796      2 months ago    468MB
nginx                                    latest            f876bfc1cc63      3 months ago    192MB
open-liberty                            latest            231cf8700568      6 months ago    685MB
angular-application1                     latest            a6a89caa6a76      6 months ago    63.2MB
<none>                                   <none>            2da41be2837b      6 months ago    65.2MB
angular-base-aug17                       latest            c854f186ee8e      7 months ago    2.07GB
lara-app                                 latest            08d1bae3ee27      7 months ago    302MB
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14 latest            a83337a68652      7 months ago    263MB
laravel-test                             latest            a83337a68652      7 months ago    263MB
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14 <none>            6ffd5ebfe2ae      7 months ago    333MB
455415553703.dkr.ecr.us-west-2.amazonaws.com/angular-base                 latest            38a01ab4ee0c      7 months ago    2.07GB
angular-base                             latest            38a01ab4ee0c      7 months ago    2.07GB
mahendrakumar/angular-update-aug07      latest            38a01ab4ee0c      7 months ago    2.07GB
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-latest latest            3136b830cd88      7 months ago    310MB
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base                 latest            3136b830cd88      7 months ago    310MB
laravel-base                             latest            3136b830cd88      7 months ago    310MB
mahendrakumar/laravel-update-aug07      latest            3136b830cd88      7 months ago    310MB
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14 <none>            3136b830cd88      7 months ago    310MB
mahendrakumar/laravelapplication         latest            d72d02d091aa      7 months ago    656MB
bash                                      latest            bd4206c5bc03      7 months ago    14.4MB
mahendrakumar/angular-application         latest            97e73120a64d      7 months ago    1.66GB
angular-application                      update            e34eaaec9eab      8 months ago    62.9MB
httpd                                     latest            dad6ca1caf78      8 months ago    148MB
node                                      18               15babec4ad7bd      8 months ago    1.09GB
mysql                                     5.7              5107333e08a8      15 months ago    501MB
hello-world                              latest            d2c94e258dcb      22 months ago    13.3kB

root@thinkpad-e14-gen-3:~# docker images prune
No images found matching "prune": did you mean "docker image prune"?
root@thinkpad-e14-gen-3:~# docker image prune
WARNING! This will remove all dangling images.
Are you sure you want to continue? [y/N] yes
```

## 2> Container space usage – docker container prune

```

aebc5de8bf88 httpd "httpd-foreground" 3 months ago Exited (0) 2 months ago w
eb2 "httpd-foreground" 3 months ago Exited (0) 3 months ago w
eb1 "httpd-foreground" 3 months ago Exited (0) 3 months ago r
1fc27fe0ef27 hello-world "/hello" 3 months ago Exited (0) 3 months ago r
onantic_payne angular-application1 "httpd-foreground" 6 months ago Exited (0) 6 months ago c
93fca9a50crazy_diffie "httpd-foreground" 6 months ago Exited (255) 6 months ago 0.0.0.0:4200->80/tcp, [::]:4200->80/tcp a
81237813d33 a6a89ca6a76 "httpd-foreground" 6 months ago Exited (0) 6 months ago a
ngular-application-latest 30f08c2229f3 2d041be2837b "httpd-foreground" 6 months ago Exited (0) 6 months ago a
6c57529f2793 e34eaaec9eab "httpd-foreground" 6 months ago Exited (0) 6 months ago a
ngular-application "/home/user/entrypoi..." 7 months ago Exited (137) 6 months ago a
1738b7d79731 f1d943cf329b "docker-entrypoint.s..." 7 months ago Exited (137) 7 months ago a
c7e0f7efd0e8 6a83ae99737e "apache2ctl -D FOREG..." 7 months ago Exited (137) 7 months ago l
ngular-app b0eabd97134d 455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-lmage-aug14 "docker-entrypoint.s..." 7 months ago Exited (0) 7 months ago b
ravel-application 45b7275cb033 455415553703.dkr.ecr.us-west-2.amazonaws.com/angular-base:latest "docker-entrypoint.s..." 7 months ago Exited (0) 7 months ago f
old_sanderson def27c553b21 angular-base "docker-entrypoint.s..." 7 months ago Exited (137) 6 months ago l
lamboyant_sutherland 1ae27ed6df42 laravel-app "apache2ctl -D FOREG..." 7 months ago Exited (1) 7 months ago l
laravel-app-aug17 5a2ca0771b5c 455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-lmage-aug14:latest "bash" 7 months ago Exited (137) 7 months ago b
lara-app 71364f736186 laravel-app "bash" 7 months ago Exited (0) 7 months ago l
eautiful_solonon 23307a11dcdb 455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-lmage-aug14:latest "docker-entrypoint.s..." 7 months ago Exited (137) 7 months ago l
oving_easley a1eb91b974ed 455415553703.dkr.ecr.us-west-2.amazonaws.com/angular-base "apache2ctl -D FOREG..." 7 months ago Exited (255) 7 months ago 80/tcp l
nfallible_pasteur 0168405481ca 3136b830cd88 "apache2ctl -D FOREG..." 7 months ago Exited (255) 7 months ago 0.0.0.0:8001->80/tcp, [::]:8001->80/tcp l
laravel-base-lmage d80236efeb66 laravel-base "docker-entrypoint.s..." 7 months ago Exited (137) 7 months ago a
laravel b038308680ca 38a01ab4ee0c "docker-entrypoint.s..." 7 months ago Exited (137) 7 months ago a
ngular-app-port80 340e0fa9cc34 38a01ab4ee0c "apache2ctl -D FOREG..." 7 months ago Exited (255) 7 months ago l
ngular-app-port4200 029c5268d40e laravel-base:latest "docker-entrypoint.s..." 7 months ago Restarting (1) 53 seconds ago m
laravel-app-port80 95ae27901561 mysql:5.7
mysql
root@thinkpad-e14-gen-3:~# docker ps -a | wc -l
59
root@thinkpad-e14-gen-3:~# docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] yes
root@thinkpad-e14-gen-3:~# docker ps -a | wc -l
59
root@thinkpad-e14-gen-3:~#

```

### 3> Volume space usage – docker volume prune

```

root@thinkpad-e14-gen-3:~# docker volume ls
DRIVER      VOLUME NAME
local       4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
local       8edcf5b5f4c08d0c380f2394901429b28afd55d14e13bb3b9ba6c56014dbf0f8
local       83d4a7e59b548f3d2e8bed318f6986d3ae513f1fe69815ac9c3a028665bcfc71
local       Mahi_Test
local       ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
local       f0cefd78901c36617b51cee74eb912eb6859378fdf1db5920a09fe59e88944fd

root@thinkpad-e14-gen-3:~# docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N] yes
root@thinkpad-e14-gen-3:~# docker volume ls
DRIVER      VOLUME NAME
local       4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
local       8edcf5b5f4c08d0c380f2394901429b28afd55d14e13bb3b9ba6c56014dbf0f8
local       83d4a7e59b548f3d2e8bed318f6986d3ae513f1fe69815ac9c3a028665bcfc71
local       Mahi_Test
local       ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
local       f0cefd78901c36617b51cee74eb912eb6859378fdf1db5920a09fe59e88944fd
root@thinkpad-e14-gen-3:~#

```

### 4> Build Cache usage – docker system prune (Prune everything)

```

root@thinkpad-e14-gen-3:~# docker system df
TYPE                TOTAL        ACTIVE        SIZE          RECLAIMABLE
Images              27           21           10.18GB       5.717GB (56%)
Containers          58           8            1.047GB       997.1MB (95%)
Local Volumes       6            1           113.4MB       113.4MB (99%)
Build Cache         334          0           26.83GB       26.83GB

root@thinkpad-e14-gen-3:~# docker system prune
WARNING! This will remove:
 - all stopped containers
 - all networks not used by at least one container
 - all dangling images
 - unused build cache

Are you sure you want to continue? [y/N] yes

```



### 13. What is the command to check resource usage?

You can check resource usage of docker container by using **docker stats** command.

Resource usages like (CPU, Memory, disk I/O).

This command provide live stream of your resource usage statistics for running docker container.

CONTAINER ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET I/O	BLOCK I/O	PIDS
a0ba2889f8e4	e-com-rename-Mar19	0.00%	13.95MiB / 14.46GiB	0.09%	152kB / 0B	0B / 0B	11
20195c665396	ecommerce-ui2	0.00%	32.59MiB / 14.46GiB	0.22%	207kB / 0B	22.8MB / 0B	11
def35cf22b4e	product-inventory2	0.01%	32.28MiB / 14.46GiB	0.22%	207kB / 0B	20.1MB / 0B	1
ccc840f8d96d	product-catalog2	0.00%	17.73MiB / 14.46GiB	0.12%	207kB / 0B	9.24MB / 0B	7
b33cd333983e	contact-support-team2	0.02%	31.81MiB / 14.46GiB	0.21%	207kB / 0B	19.4MB / 0B	1
4a6f60b2d075	order-management2	0.34%	393.9MiB / 14.46GiB	2.66%	207kB / 0B	92.2MB / 34.1MB	70
34fda9942b7c	profile-management2	0.00%	23.35MiB / 14.46GiB	0.16%	207kB / 0B	14.2MB / 0B	7

**Docker stats** – use this command to check display a table with information like container id / name / CPU/ Memory Usage / Limit / MEM ID / Block ID / PIDS.

To Check an specify running docker container resource usage using docker stats <Container ID>

**docker stats a0ba2889f8e4**

CONTAINER ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET I/O	BLOCK I/O	PIDS
a0ba2889f8e4	e-com-rename-Mar19	0.00%	13.95MiB / 14.46GiB	0.09%	159kB / 0B	0B / 0B	11

To check running container resource usage an no stream.

```
root@thinkpad-e14-gen-3:~# docker stats a0ba2889f8e4 --no-stream
```

CONTAINER ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET I/O	BLOCK I/O	PIDS
a0ba2889f8e4	e-com-rename-Mar19	0.00%	13.95MiB / 14.46GiB	0.09%	162kB / 0B	0B / 0B	11

```
root@thinkpad-e14-gen-3:~# docker stats --no-stream
```

CONTAINER ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET I/O	BLOCK I/O	PIDS
a0ba2889f8e4	e-com-rename-Mar19	0.00%	13.95MiB / 14.46GiB	0.09%	162kB / 0B	0B / 0B	11
20195c665396	ecommerce-ui2	0.00%	32.59MiB / 14.46GiB	0.22%	216kB / 0B	22.8MB / 0B	11
def35cf22b4e	product-inventory2	0.02%	32.28MiB / 14.46GiB	0.22%	216kB / 0B	20.1MB / 0B	1
ccc840f8d96d	product-catalog2	0.00%	17.73MiB / 14.46GiB	0.12%	216kB / 0B	9.24MB / 0B	7
b33cd333983e	contact-support-team2	0.02%	31.81MiB / 14.46GiB	0.21%	216kB / 0B	19.4MB / 0B	1
4a6f60b2d075	order-management2	0.39%	393.9MiB / 14.46GiB	2.66%	216kB / 0B	92.2MB / 35.2MB	70
34fda9942b7c	profile-management2	0.00%	23.35MiB / 14.46GiB	0.16%	216kB / 0B	14.2MB / 0B	7
95ae27901561	mysql	0.00%	0B / 0B	0.00%	0B / 0B	0B / 0B	0

### 14. What is the command to copy the files from docker to local system?

Copy files and folders between containers and local machine using **docker cp** command.

**Container in to local file**

docker cp Container:<Source Path> <Local file path> - **docker cp a0ba2889f8e4:/app/server/routes .**

```
root@thinkpad-e14-gen-3:~# ls -l
total 36
-rw-r--r-- 1 root root 0 Aug 14 2024 1
drwxr-xr-x 2 root root 4096 Mar 17 00:27 app
drwxr-xr-x 3 root root 4096 Mar 17 20:01 devops_sample
-rwxrwxrwx 1 root root 408 Mar 17 00:33 dockerfile
drwxr-xr-x 3 root root 4096 Dec 26 21:06 git-actions
drwxr-xr-x 3 root root 4096 Nov 21 2023 'NetSarang Computer'
drwxr-xr-x 3 root root 4096 Jan 10 2024 PycharmProjects
-rw-r--r-- 1 root root 6 Mar 17 00:22 requirements.txt
drwx----- 14 root root 4096 Feb 22 16:29 snap
drwx----- 21 root root 4096 Aug 29 2024 vscode-root
root@thinkpad-e14-gen-3:~# docker exec -it a0ba2889f8e4 /bin/bash
root@a0ba2889f8e4:/app/server# ls -l
total 44
drwxr-xr-x 78 root root 4096 Jan 9 18:01 node_modules
-rw-r--r-- 1 root root 24790 Jan 9 18:01 package-lock.json
-rw-r--r-- 1 root root 340 Jan 9 18:01 package.json
drwxr-xr-x 2 root root 4096 Jan 9 18:01 routes
-rw-r--r-- 1 root root 2032 May 22 2024 server.js
root@a0ba2889f8e4:/app/server# exit
exit
root@thinkpad-e14-gen-3:~# docker cp a0ba2889f8e4:/app/server/routes .
Successfully copied 16.9kB to /root/.
root@thinkpad-e14-gen-3:~# ls -l routes/
total 24
-rw-r--r-- 1 root root 2224 May 22 2024 auth.js
-rw-r--r-- 1 root root 1339 May 22 2024 contact.js
-rw-r--r-- 1 root root 1857 May 22 2024 inventory.js
-rw-r--r-- 1 root root 2921 May 22 2024 orders.js
-rw-r--r-- 1 root root 1114 May 22 2024 products.js
-rw-r--r-- 1 root root 1267 May 22 2024 shipping.js
```

## 15. What is the command to copy the files from local system to docker container?

### Local file in to container

docker cp <local file path> Container:<Destination Path> - **docker cp requirements.txt a0ba2889f8e4:/app**

```
root@thinkpad-e14-gen-3:~# ls -l
total 36
-rw-r--r-- 1 root root 0 Aug 14 2024 1
drwxr-xr-x 2 root root 4096 Mar 17 00:27 app
drwxr-xr-x 3 root root 4096 Mar 17 20:01 devops_sample
-rwxrwxrwx 1 root root 408 Mar 17 00:33 dockerfile
drwxr-xr-x 3 root root 4096 Dec 26 21:06 git-actions
drwxr-xr-x 3 root root 4096 Nov 21 2023 'NetSarang Computer'
drwxr-xr-x 3 root root 4096 Jan 10 2024 PycharmProjects
-rw-r--r-- 1 root root 6 Mar 17 00:22 requirements.txt
drwx----- 14 root root 4096 Feb 22 16:29 snap
drwx----- 21 root root 4096 Aug 29 2024 vscode-root
root@thinkpad-e14-gen-3:~#
root@thinkpad-e14-gen-3:~# docker cp requirements.txt a0ba2889f8e4:/app
Successfully copied 2.05kB to a0ba2889f8e4:/app
root@thinkpad-e14-gen-3:~# docker exec -it a0ba2889f8e4 /bin/bash
root@a0ba2889f8e4:/app/server# ls -l /app/
total 16
drwxr-xr-x 1 root root 4096 Jan 9 18:01 client
-rw-r--r-- 1 root root 6 Mar 16 18:52 requirements.txt
drwxr-xr-x 1 root root 4096 Jan 9 18:01 server
```

## 16. What is the command to create a image from running container?

Container images are in standadized packages that are included all of the file, binaries, Libraries and configurations to run a container.

There is two important principles of images:

1> Images are immutable, Once an image is created there is no option to modify.

You can only made the new images or add change on top of the image.

2> Container images are composed of layers. Each layer represent the set of file system changes that add, remove, modify files.

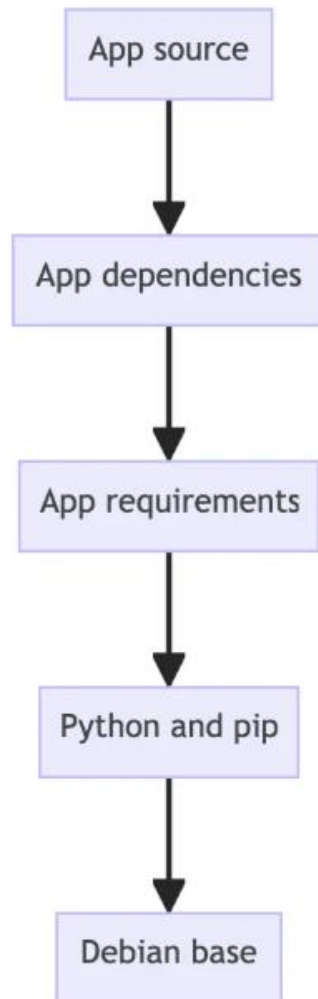
1> 1<sup>st</sup> layer add basic commands and a package manager such as apt.

2> 2<sup>nd</sup> layer install a dependancy management.

3> 3<sup>rd</sup> layer copied in an specific reguirement.txt file.

4> 4<sup>th</sup> layer install application specific dependancies.

5> 5<sup>th</sup> layer copies actual source code of the application.



Docker container commit command use to save the changes what ever inside the container.

Docker container commit -m “This is new image from the running container”

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v#
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker commit -m "This is new images from the running container" a0ba2889f8e4
sha256:929f1f4bececa130eb361de3efa6b1bb2acb827952776aa532fca92670f929a4
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker images
REPOSITORY          TAG          IMAGE ID       CREATED        SIZE
<none>              <none>      929f1f4becec   9 seconds ago  1.34GB
order-management    latest      9873b79145c1   2 months ago  740MB
  
```

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker run -itd --name image-copy 929f1f4becec
0ce2ad8ca5d1b874dadd75943b1c4cd3eb5bf36d624eb746d28d4eda5a2cdb44
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker exec -it 0ce2ad8ca5d1b874dadd75943b1c4cd3eb5bf36d624eb746d28d4eda5a2cdb44 /bin/bash
root@0ce2ad8ca5d1:/app/server#
root@0ce2ad8ca5d1:/app/server#
root@0ce2ad8ca5d1:/app/server# ls -l
total 44
drwxr-xr-x 78 root root 4096 Jan  9 18:01 node_modules
-rw-r--r--  1 root root 24790 Jan  9 18:01 package-lock.json
-rw-r--r--  1 root root  340 Jan  9 18:01 package.json
drwxr-xr-x  2 root root 4096 Jan  9 18:01 routes
-rw-r--r--  1 root root 2032 May 22  2024 server.js
root@0ce2ad8ca5d1:/app/server#
  
```

## 17. What is the command to create/delete/rename a docker volume?

1> Docker volume is a persistent data storage mechanism.

2> That allow data to be stored and managed outside of a container file system.



3> Data persist even the container got stopped or killed.

4> All the volumes are managed by docker and stored in dedicated directory on your host.

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# ls -l /var/lib/docker/volumes/
total 56
drwx-----x 3 root root    4096 Jul 22  2024 4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
drwx-----x 3 root root    4096 Jan  8 21:13 83d4a7e59b548f3d2e8bed318f6986d3ae513f1fe69815ac9c3a028665bcfc71
drwx-----x 3 root root    4096 Jul 19  2024 8edcf5b5f4c08d0c380f2394901429b28afd55d14e13bb3b9ba6c56014dbf0f8
brw----- 1 root root    259, 2 Mar 19 12:41 backingFsBBlockDev
drwx-----x 3 root root    4096 Jul 19  2024 ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
drwx-----x 3 root root    4096 Jan  8 23:07 f0cefd78901c36617b51cee74eb912eb6859378fdf1db5920a09fe59e88944fd
drwx-----x 3 root root    4096 Jan  7 20:04 Mahi_Test
-rw----- 1 root root   65536 Mar 19 12:41 metadata.db
root@thinkpad-e14-gen-3:/home/mahendrakumar-v#
```

The above volumes are mounted in the container file system.

### Create a new volume:

The new volume will be created to store the container data. If you are not specifying a name to create a container, then it will generate a random name.

docker volume create <Volume name> - **docker volume create Mrch\_19**

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume create Mrch_19
Mrch_19
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume ls
DRIVER      VOLUME NAME
local       4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
local       8edcf5b5f4c08d0c380f2394901429b28afd55d14e13bb3b9ba6c56014dbf0f8
local       83d4a7e59b548f3d2e8bed318f6986d3ae513f1fe69815ac9c3a028665bcfc71
local       Mahi_Test
local       Mrch_19
local       ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
local       f0cefd78901c36617b51cee74eb912eb6859378fdf1db5920a09fe59e88944fd
```

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker run -d -v Mrch_19:/app/data 929f1f4becec /app/server
772bd3cefd6c7e920392b03118d96535cff4504d5960570ed9b5f5fe62f47e82
```

Rename a volume: - **docker run -d -v Mrch\_19:/app/server -v March\_19:/app/server\_backup 929f1f4becec**

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker run -d -v Mrch_19:/app/server -v March_19:/app/server_backup 929f1f4becec
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS
45f6ccf8df2f   929f1f4becec   "docker-entrypoint.s..." 18 seconds ago Up 17 seconds 4000/tcp
silly_beaaver
```

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume ls
DRIVER      VOLUME NAME
local       4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
local       8edcf5b5f4c08d0c380f2394901429b28afd55d14e13bb3b9ba6c56014dbf0f8
local       83d4a7e59b548f3d2e8bed318f6986d3ae513f1fe69815ac9c3a028665bcfc71
local       Mahi_Test
local       March_19
local       Mrch_19
local       ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
local       f0cefd78901c36617b51cee74eb912eb6859378fdf1db5920a09fe59e88944fd
```

Remove a docker volume: - **docker volume remove -> Remove one or more volume.**

**docker volume remove**

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker rm Mrch_19
Error response from daemon: No such container: Mrch_19
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume remove Mrch_19
Error response from daemon: remove Mrch_19: volume is in use - [45f6ccf8df2fab8fe44c78afda13a28782c48d3ca6f1e4d3dcefe5a43af97fcf]
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker ps --latest
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
45f6ccf8df2f   929f1f4becec   "docker-entrypoint.s..." 6 minutes ago   Up 6 minutes   4000/tcp     silly_beaver
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker stop 45f
45f
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume remove Mrch_19
Error response from daemon: remove Mrch_19: volume is in use - [45f6ccf8df2fab8fe44c78afda13a28782c48d3ca6f1e4d3dcefe5a43af97fcf]
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker inspect Mrch_19
[
  {
    "CreatedAt": "2025-03-19T21:00:24+05:30",
    "Driver": "local",
    "Labels": null,
    "Mountpoint": "/var/lib/docker/volumes/Mrch_19/_data",
    "Name": "Mrch_19",
    "Options": null,
    "Scope": "local"
  }
]
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker ps -a --filter volume=Mrch_19
CONTAINER ID   IMAGE          COMMAND                  CREATED        STATUS        PORTS        NAMES
45f6ccf8df2f   929f1f4becec   "docker-entrypoint.s..." 8 minutes ago   Exited (137)   About a minute ago        silly_beaver
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker rm 45f
45f
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume rm Mrch_19
Mrch_19
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N] y
Deleted Volumes:
4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
8edcf5b5f4c08d0c380f2394901429b28afd55d14e13bb3b9ba6c56014dbf0f8
ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
f0cefcd78901c36617b51cee74eb912eb6859378fd1db5920a09fe59e88944fd
Total reclaimed space: 113.4MB

```

## 18. What is the command to create/delete a network in docker?

Docker network enable communication between containers, Allowing them to intract with each others and outside the world using various network drivers.

Docker network uses a docker network drivers to implement the network functionalities, allowing for different network functionality.

Docker serve a several network drives

**Bridge** - Default network – Container on the same network can communicate with each other using IP add.  
**Host** – Share the hostnetwork – Allowing to access the hostnetwork interface directly.  
**None** – Communication between across multiple dockers.

Create a network:

**docker network create <Options> network name**

Create a new network the drivers are accept **bridge** or **overlay** network which are built in network drivers.

If you are install your **own network** or **thired part network** you should specify the driver here.

If you **dont specify the –driver** here then the network take **default network driver** (bridge network)

When you install a docker engine, The **brige network automatically** created by default.

The correspondentt to **docker0** bridge to docker engine has traditionally relied on.

When you launch a new container with **docker run it automatically** connect to the bridge network.

You can't remove the **default network but** you can create a new network here.

Docker **bridge network is a isolation network** on a single docker nework (single docker engin)

If you want to **communicate multiple docker host** which is install **docker engine** then you should enable swarm mode or create a overlay network.

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
011d15427a57        Mahi_Static         bridge              local
a78037e6c8fe        bridge              bridge              local
400a6b248c18        host                host                local
b7d0d818cf54        mahi-network        bridge              local
ec162e632ea5        microservice_project_Mahi-Network bridge              local
b5f6d8dea00a        microservice_project_mahi-network bridge              local
5323d061e857        none                null                local
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network create March_19
dbe15196977449e8f03940b1e621bd46218834652df40815808d9e5c0d2f991a
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
011d15427a57        Mahi_Static         bridge              local
dbe151969774        March_19             bridge              local
a78037e6c8fe        bridge              bridge              local
400a6b248c18        host                host                local
b7d0d818cf54        mahi-network        bridge              local
ec162e632ea5        microservice_project_Mahi-Network bridge              local
b5f6d8dea00a        microservice_project_mahi-network bridge              local
5323d061e857        none                null                local
root@thinkpad-e14-gen-3:/home/mahendrakumar-v#
```

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network inspect dbe151969774
[
  {
    "Name": "March_19",
    "Id": "dbe15196977449e8f03940b1e621bd46218834652df40815808d9e5c0d2f991a",
    "Created": "2025-03-19T21:59:28.934611089+05:30",
    "Scope": "local",
    "Driver": "bridge",
    "EnableIPv6": false,
    "IPAM": {
      "Driver": "default",
      "Options": {},
      "Config": [
        {
          "Subnet": "172.21.0.0/16",
          "Gateway": "172.21.0.1"
        }
      ]
    },
    "Internal": false,
    "Attachable": false,
    "Ingress": false,
    "ConfigFrom": {
      "Network": ""
    },
    "ConfigOnly": false,
    "Containers": {},
    "Options": {},
    "Labels": {}
  }
]
```

### Delete network:

Remove one or more networks by name or identifier.

Before delete you must 1<sup>st</sup> disconnct any container if connected it.

**docker network rm <network name or id>**

**docker network rm dbe151969774**

**Need to remove forcefully then we can go with -f**

**docker network rm -f <network id or name>**

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
011d15427a57        Mahi_Static         bridge             local
dbe151969774        March_19            bridge             local
a78037e6c8fe        bridge             bridge             local
400a6b248c18        host               host               local
b7d0d818cf54        mahi-network        bridge             local
ec162e632ea5        microservice_project_Mahi-Network bridge             local
b5f6d8dea00a        microservice_project_mahi-network bridge             local
5323d061e857        none               null               local
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network rm dbe151969774
dbe151969774
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network ls
NETWORK ID          NAME                DRIVER              SCOPE
011d15427a57        Mahi_Static         bridge             local
a78037e6c8fe        bridge             bridge             local
400a6b248c18        host               host               local
b7d0d818cf54        mahi-network        bridge             local
ec162e632ea5        microservice_project_Mahi-Network bridge             local
b5f6d8dea00a        microservice_project_mahi-network bridge             local
5323d061e857        none               null               local
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# █

```

### 19. What is the command to remove all stopped container/unused networks/unused images?

We can clean up your docker environment by removing all stopped container, unused networks and unused images.

**Remove all stopped container:** `docker container prune` / `docker container prune -a`

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker container prune
WARNING! This will remove all stopped containers.
Are you sure you want to continue? [y/N] █

```

**Remove all unused Network:** `docker network prune` / `docker network prune -a`

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker network prune
WARNING! This will remove all custom networks not used by at least one container.
Are you sure you want to continue? [y/N] y
Deleted Networks:
mah-i-network
microservice_project_Mahi-Network
Mahi_Static

```

**Remove all unused volume:** `docker volume prune` / `docker volume prune -a`

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N] y
Total reclaimed space: 0B
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# █

```

**Remove all unused images:** `docker images prune` / `docker images prune -a`



```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker images prune
REPOSITORY      TAG              IMAGE ID         CREATED          SIZE

No images found matching "prune": did you mean "docker image prune"?
root@thinkpad-e14-gen-3:/home/mahendrakumar-v#
```

**Remove everything in one command:** `docker system prune / docker system prune -a`

```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume prune
WARNING! This will remove anonymous local volumes not used by at least one container.
Are you sure you want to continue? [y/N] y
Total reclaimed space: 0B
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker images prune
REPOSITORY      TAG              IMAGE ID         CREATED          SIZE

No images found matching "prune": did you mean "docker image prune"?
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker system prune
WARNING! This will remove:
- all stopped containers
- all networks not used by at least one container
- all dangling images
- unused build cache

Are you sure you want to continue? [y/N] y
Deleted Containers:
fd4afe040b849bf2f2916e671c684695ee5e9a6ddc4d6c97a3fd75555c1f8a00
333566c6505d465a5f2952bc677648d7921a46abac89f6615db2eb5231d53e08
bc5929dc97476dc402dced5cfdd2b9bfb2beb9560ee1b19100b4511d7a979ac8
c4fbfd984bcc26bc227faee7e54fa8b00e2e67dbf6fb0d09692781a57a9aa2cc
d52804194ca8b67dbf61bdf7b88dbc2bf10871f29263c3333d93b60675345c4
a12c835634e5ed7396bb801873dab08a4cdbc0a7eb4c0e89842797becc1a86b6
014194a69661ae438a626c17e8ba3c80291676eea5a1131fcd388edc67dcaffd
53feb7d431fe3da828dd637886a1ba5c941e495e067e20c8be85eccc46f2612b
8a888c76e7038b38272434bd397781332efb95d2eabc2ee60a73f7909f5b1c13
aa2224e7864a11f000de45ad755bc47329357035316abe8966a39ab1f5193890
ae7427fb751506413b2ef6b54511c339726781588313357288444c81e2049b25
c9ce99f545e508a5e9027c0c3ca264e3c6761b9ddb881d24b4cdccbf9dd70740
052d0108169b9683b78a5752ba174204be9247558aa88408fc4daa2fca9e9230
9b0146d6cc9beafd75e4adebe8b3992f140e72f4fe6ef110abb1468185363b37
43f9d90769d77dc8749bd8b2bc1a75c24a42e0b4c024b0c1379c93027b12c64e
abc219fe9a9e3bbff3f20f2a1447f79f845b89df4004a8f4e7f145cf3a06201b
b6febd342263be083d3a22fe3cd9a925f0d3f12f093baef40750a820c32cdbf3
b7e4cacd5591f17be96d1286ec4854b318848548ef784db5dac21a780c699760
48e576b7146c1e707e4774b9af73959ff4cdc096f7b7981de7f36d323773755a
d4280e26edaa1eb2138016e7d89aa357458ec3f611af178053af6776640cc8da
7322b6ccb2ed60abf84b0a95a6e257c520465d8ef81ba1df7ace621f56ad0f99
7e380367903ffc053fec7338514c8846aedda52f730f3fea4658692b2111062f
040c87dd0bfca7fe1edd1bec53a370f0068faa6be5c68347a193121e26bfebfb8
71e72d3853c0e13e6f64f0f988db890b37da49915b8a76e7e11baf0ecb71d6a6
cfa16df9f87ba7b934ff991f2790f233f2704e68975703da4b166aa219231723
40f61c49cd5448cce83e716aa3f09d8c2913b4a4c052baf5450a274bd4376832
560d31424d9ac0f45226a351498de13998456d6ea7b3d7fb52dd163167c8de96
7824e8a69578e971d6f24b4e689446cf435ff93dbb55391980d8b0f89263c635
aebc5de8bf88a6468e201ac3009424a3e97020c494010bc4f973778951e8e61b
3487608f49d07419bba6608adc453cf82e190f7c3e71206c0b8c7c787b432bc6
1fc27fe0ef27657f492a856ef384e593dc36fba45369ec61cd1836441f0a0ac0
93fe2a29a50c5d1cbeb186ed0b3e445f7ddde409b99b74325a6966d41f1c3839
812378133d339bd7e866de3d538a7f6f870396ff22cd973bb5c7c95457c018d2
39f68c2229f33dfa8776cb8964a091b2b258b6a4e01db4b5f529d00e98d4460
6c57529f2793036f63c91fc5ad22d161acfc2981521a08f14ba9253e1ffa61b3
1738b7d797316e5db8d52770f25c0042b1fb06db5e55f6d39ee33178f022a03d
```

## 20. What is the command to find container ip address?

There is different ways to we can find ip address of the docker container.



```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker exec -it 0ce ip a
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host
        valid_lft forever preferred_lft forever
27: eth0@if28: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default
    link/ether 02:42:ac:11:00:03 brd ff:ff:ff:ff:ff:ff link-netnsid 0
    inet 172.17.0.3/16 brd 172.17.255.255 scope global eth0
        valid_lft forever preferred_lft forever

```

return low-level information on Docker objects

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker inspect 0ce2ad8ca5d1 | grep -i "ipaddress"
    "SecondaryIPAddresses": null,
    "IPAddress": "172.17.0.3",
    "IPAddress": "172.17.0.3",

```

```

root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker inspect bridge | grep -i "ip"
    "EnableIPv6": false,
    "IPAM": {
        "IPv4Address": "172.17.0.3/16",
        "IPv6Address": ""
        "IPv4Address": "172.17.0.2/16",
        "IPv6Address": ""
        "com.docker.network.bridge.enable_ip_masquerade": "true",
        "com.docker.network.bridge.host_binding_ipv4": "0.0.0.0",

```

All The Best



