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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 -l
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 -l
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)

1st 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 746MB 0B 746.4MB 3
product-inventory latest b15b2c834462 2 months ago 138MB 74.82MB 62.79MB 2
product-catalog latest b791f125ecfd3 2 months ago 917MB 911.8MB 4.945MB 2
shipping-and-handling latest e7996f0a996e 2 months ago 846MB 0B 845.6MB 2
contact-support-team latest 6889a281b1cb 2 months ago 136MB 0B 136.2MB 2
profile-management latest 3ea93a6363e 2 months ago 917MB 911.8MB 5.626MB 2
e-commerce-ui-tag latest 6da75989895c 2 months ago 1.34GB 911.8MB 424.6MB 5
custom_nginx_with_permissions latest 6357712cecc0 2 months ago 192MB 191.8MB 1.643KB 0
jenkins/jenkins lts 44c1caeaf796 2 months ago 468MB 0B 468.1MB 0
nginx latest f876bfc1cc63 3 months ago 192MB 191.8MB 0B 2
open-liberty latest 231c6700568 6 months ago 685MB 0B 685MB 0
angular-application1 latest aad68a4a6d76 6 months ago 81.2MB 82.88MB 291.8KB 2
<none> latest 2da41be2837b 6 months ago 65.1MB 62.88MB 2.343MB 1
angular-base-aug17 latest 6bd1bae3ee27 7 months ago 2.07GB 1.088GB 985.5MB 1
laravel-app latest a933378652 7 months ago 302MB 263MB 37.26MB 4
<none> latest 0fffd5eb12ae 7 months ago 253MB 253MB 0B 3
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14 latest <none> 7 months ago 333MB 170.3MB 162.4MB 0
455415553703.dkr.ecr.us-west-2.amazonaws.com/angular-base latest <none> 7 months ago 2.07GB 2.074GB 0B 5
455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-latest latest 3ba01abdec0c 7 months ago 2.07GB 2.074GB 0B 5
mahendrakumar/laravelapplication latest 3136b630cd88 7 months ago 318MB 318.3MB 0B 3
d73d03d4991a0 latest d73d03d4991a0 7 months ago 656MB 74.79MB 581.1MB 0
bash latest bd4280c5bc03 7 months ago 14.4MB 7.79MB 6.594MB 0
mahendrakumar/angular-application latest 97e73120a64d 7 months ago 1.66GB 1.088GB 568.6MB 1
angular-application update e34eaene9eal 8 months ago 62.9MB 62.88MB 0B 2
httpd latest dad6ca1caf79 8 months ago 149MB 0B 148.2MB 2
node 18 latest 15babc4ad7bd 8 months ago 1.09GB 1.088GB 0B 1
mysql 5.7 latest 5107333e08a8 15 months ago 501MB 0B 501.4MB 1
hello-world latest d2c94e258dc8 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	SB	35 hours ago	Up 19 minutes	e-com-rename-Mari9
fda4fe040084	e-commerce-update	"docker-entrypoint.s..."	0	SB	35 hours ago	Exited (137) 17 hours ago	descending_bart1
k		"docker-entrypoint.s..."	0	SB	35 hours ago	Exited (137) 17 hours ago	
3356dc6595d	e-commerce-update	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	hungry_mclean
bc5929dc9747	ed68ca4134c3	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	exciting_neumann
c4bfdf984bcc	ed68ca4134c3	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	unruffled_lalanne
d52804194ca8	ed68ca4134c3	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	ecstatic_gagarin
a12c355634e5	05824a90df31	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	awesome_dubinsky
014194a09961	05824a90df31	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	dreamy_taussig
53fe7bd431fe	05824a90df31	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	eager_bohr
8a888c76e793	05824a90df31	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	quirky_blackwell
a3a224e78642	05824a90df31	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	determined_chaplygi
n		"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	
ae7427fb7515	05824a90df31	"python app.py"	0	SB	2 days ago	Exited (2) 2 days ago	laughing_torvalds
c9ce9f545e5	e34eaace9ab	"httpd-foreground"	0	SB	2 days ago	Created	Angular_Update
20195c605396	ecommerce-ul	"docker-entrypoint.s..."	0	SB	6 weeks ago	Up 48 minutes	ecommerce-ul2
def35cf22046	product-inventory	"python3 inventory_a..."	96.3kB	SB	6 weeks ago	Up 48 minutes	product-inventory2
b3c840f80966	product-catalog	"docker-entrypoint.s..."	0	SB	6 weeks ago	Up 48 minutes	product-catalog2
b3c333983e	contact-support-team	"python3 server.py"	96.5kB	SB	6 weeks ago	Up 48 minutes	contact-support-tea
m2		"usr/local/bin/vnvn..."	0	50MB	6 weeks ago	Up 48 minutes	
4a0f60b2d075	order-management	"docker-entrypoint.s..."	0	SB	6 weeks ago	Up 48 minutes	order-management2
34fd9942b7c	profile-management	"go run main.go"	0	164MB	6 weeks ago	Exited (2) 2 weeks ago	profile-management2
052d01081698	shipping-and-handling	"docker-entrypoint.s..."	0	SB	6 weeks ago	Exited (137) 6 weeks ago	shipping-and-handl
ng		"docker-entrypoint.s..."	0	SB	6 weeks ago	Exited (137) 6 weeks ago	
9b914dd6cc9b	15b80c4d7bd	"usr/local/bin/vnvn..."	0	49.9MB	6 weeks ago	Exited (143) 6 weeks ago	Control_group
3379409769d7	9873b79145c1	"docker-entrypoint.s..."	0	100MB	6 weeks ago	Exited (137) 6 weeks ago	Testing
4b7219fe9a9e	97e73120a4d	"apache2ctl -D FOREG..."	0	1.63kB	6 weeks ago	Exited (137) 6 weeks ago	my_littlecycle
b6febd342263	08d1bae3ee27	"ping google.com"	0	SB	6 weeks ago	Created	Laravel
b7e4cacd5591	08d1bae3ee27	"docker-entrypoint.s..."	0	SB	6 weeks ago	Exited (137) 6 weeks ago	Laravel
48e576b7146c	angular-base-aug17	"docker-entrypoint.s..."	0	SB	2 months ago	Exited (137) 2 months ago	test
d428be20edaa	ecommerce-ul	"docker-entrypoint.s..."	0	SB	2 months ago	Exited (137) 2 months ago	ecommerce-ul
732202cb29d	order-management	"python3 inventory_a..."	49.9MB	SB	2 months ago	Exited (137) 2 months ago	order-management
7e3803675e3f	product-inventory	"python3 catalog_a..."	96.3kB	SB	2 months ago	Exited (137) 2 months ago	product-inventory
040c7d4d00fc	product-catalog	"docker-entrypoint.s..."	0	SB	2 months ago	Exited (137) 2 months ago	product-catalog
71e77d3853c0	shipping-and-handling	"go run main.go"	0	131MB	2 months ago	Exited (2) 2 months ago	shipping-and-handl
ng		"python3 server.py"	0	96.5kB	2 months ago	Exited (137) 2 months ago	contact-support-tea
cf101df9f7b7	contact-support-team	"python3 server.py"	0	96.5kB	2 months ago	Exited (137) 2 months ago	
pr		"httpd-foreground"	0	94B	6 months ago	Exited (2) 6 months ago	angular-application
40f61cc9cd54	profile-management	"docker-entrypoint.s..."	0	576B			
560d31a24d94	nginx	"docker-entrypoint.s..."	1	0B			profile-managemen
7824e8a69578	nginx	"httpd-foreground"	0	1.89kB			ts
aebc5debbff88	httpd	"httpd-foreground"	0	1.89kB			api
3407608f49d0	httpd	"httpd-foreground"	0	31B			web2
1fc27fe0ef27	hello-world	"httpd-foreground"	0	0B			webi
93fe2a9a50c	angular-application1	"httpd-foreground"	0	0B			ronan Payne
81378133d33	aa689caa6a76	"httpd-foreground"	0	23B			crazy_difte
-latest		"httpd-foreground"	0	311B			angular-application
39768c2229f3	2da41be2837b	"httpd-foreground"	0	94B			

3> Volume space usage

Local Volumes space usage:		
VOLUME NAME	LINKS	SIZE
Mahl_Test	0	576B
ce9ffad4881b67741f60ed58ca2e94aad90e041dc51b72fa51324dd730bb24	0	0B
f0cefdf78901c36617b51cee74eb912e68859378fdf1db5920a09fe59e88944fd	0	113.4MB
4f65432f75f3e365da31e0696d16e18ec8f72d705b639410b8830adc89d9b60	0	0B
83d47e59b548f32e8bed318f6098bd3ae513f1fe69815ac9c3a028665bcfc7c1	1	1.112kB
8edcf5b5f4c08d0c380f2394901429b28afdf55d14e13b3b9ba6c56014dbf0f8	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
qkj31uqmf8zi	regular	21.2MB	7 months ago	7 months ago	1	true
m4qt9zxqgoxo	regular	1.77kB	7 months ago	7 months ago	1	true
oab61akn2zx6	regular	0B	7 months ago	7 months ago	1	true
nih1744mx94i	regular	0B	7 months ago	7 months ago	1	true
ninv5y0i2fv9	regular	85.3MB	7 months ago	7 months ago	1	true
j2djttibd5izh	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
i0villy9kn5s	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
wg42dqbnn53mm	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
fniwfzn6mlxk	regular	0B	7 months ago	7 months ago	1	true
q8welxseid2g	regular	0B	7 months ago	7 months ago	1	true
tfp6g1m1l7yz5	regular	0B	7 months ago	7 months ago	1	true
axc73u4smmax	regular	0B	7 months ago	7 months ago	1	true
tnogl9q2bqmo	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
ihe53desd7y0	regular	0B	7 months ago	7 months ago	1	true
kk38qhnidkwk	regular	0B	7 months ago	7 months ago	1	true
n1o75pc14qdo	regular	334B	7 months ago	7 months ago	1	true
i4j19eqwuaex	source.local	0B	7 months ago	7 months ago	6	false
oj1rht0m8vp8	regular	86.5MB	7 months ago	7 months ago	1	true
fzcmcag9gsj8	regular	6.14MB	7 months ago	7 months ago	1	true
kr2acur6dyer	regular	6.2kB	7 months ago	7 months ago	1	true
ljr1ydhswnrc	regular	20.9kB	7 months ago	7 months ago	1	true
7zpuhgg6bj9	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
p6jnt6ir8mx1	regular	1.08kB	7 months ago	7 months ago	1	true
bfzfjmslmrr7	regular	934kB	7 months ago	7 months ago	2	true
q2p6ej4kid42	regular	0B	7 months ago	7 months ago	3	true
4qfijexmqmaa	regular	0B	7 months ago	7 months ago	3	true
vt8gk9mzqbu0	regular	0B	7 months ago	7 months ago	3	true
bqjpobrepzx32	regular	0B	7 months ago	7 months ago	3	true
vnsplm9pu12g	regular	0B	7 months ago	7 months ago	3	true
di7zsso9wleq	regular	0B	7 months ago	7 months ago	3	true
mjhkzvhz0oxa	regular	0B	7 months ago	7 months ago	2	true
wc1b5t5k3ptl	regular	0B	7 months ago	7 months ago	2	true
0oxwfw3ybua2f	regular	0B	7 months ago	7 months ago	2	true
o4llgosq2ff6	regular	0B	7 months ago	7 months ago	2	true
l5j1eztzn6op	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   6357712ce0c   2 months ago  192MB
jenkins/jenkins                             lts     44c1caef0796  2 months ago  468MB
nginx                                       latest   f876bfcc1cc63  3 months ago  192MB
open-liberty                                  latest   231cf8700568  6 months ago  685MB
angular-application                         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      15babca4ad7bd  8 months ago  1.09GB
mysql                                       5.7     5107333e08a8   15 months ago  501MB
hello-world                                 latest   d2c94e258dc9  22 months ago  13.3kB
root@thinkpad-e14-gen-3:~# 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:~# 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
eb2          httpd          "httpd-foreground"   3 months ago  Exited (0) 3 months ago
eb1          hello-world    "/hello"           3 months ago  Exited (0) 3 months ago
1fc27fe0ef27  hello-world    "httpd-foreground"   6 months ago  Exited (0) 6 months ago
0fb759e0e6e  angular-application1  "httpd-foreground"   6 months ago  Exited (255) 6 months ago  0.0.0.0:4200->80/tcp, [::]:4200->80/tcp
razy_difffile  angular-application1  "httpd-foreground"   6 months ago  Exited (0) 6 months ago
812378133d33  a6a9c9aa6a76  "httpd-foreground"   6 months ago  Exited (0) 6 months ago
ngular-application-latest  39f68c229f3  2da41be2837b  "httpd-foreground"   6 months ago  Exited (0) 6 months ago
ngular-application-update  6c52912950c  e3aaaec9eb  "httpd-foreground"   6 months ago  Exited (0) 6 months ago
ngular-application-latest  49b759e0e6e  a6a9c9aa6a76  "httpd-foreground"   7 months ago  Exited (137) 6 months ago
173887d79733  f1d943cf329b  "/home/user/entrypoi..."  7 months ago  Exited (137) 6 months ago
ngular-app1      6a83ae99737e  "docker-entrypoint.s..."  7 months ago  Exited (137) 7 months ago
ngular-app2      7a66f7e6000  "apache2ctl -D FOREG..."  7 months ago  Exited (137) 7 months ago
bddab9d7134d  455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14  "apache2ctl -D FOREG..."  7 months ago  Exited (137) 7 months ago
aravel-application-latest  455415553703.dkr.ecr.us-west-2.amazonaws.com/angular-base:latest  "docker-entrypoint.s..."  7 months ago  Exited (0) 7 months ago
old_sunderson  dcf27cc55b21  angular-base  "docker-entrypoint.s..."  7 months ago  Exited (0) 7 months ago
lambayant_sutherland  iae27eddd7f42  laravel-base  "docker-entrypoint.s..."  7 months ago  Exited (0) 7 months ago
laravel-app-aug17  5a2ca0771b5c  455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14:latest  "apache2ctl -D FOREG..."  7 months ago  Exited (137) 6 months ago
laravel-base     51264ff36186  laravel-base  "bash"           7 months ago  Exited (1) 7 months ago
beautiful_solomon  233d7a1dccb  455415553703.dkr.ecr.us-west-2.amazonaws.com/laravel-base-image-aug14:latest  "bash"           7 months ago  Exited (0) 7 months ago
oving_easley    a1be91b074ed  455415553703.dkr.ecr.us-west-2.amazonaws.com/angular-base  "docker-entrypoint.s..."  7 months ago  Exited (137) 7 months ago
nfallible_pasteur  010840548ica  3130bb30cd88  "apache2ctl -D FOREG..."  7 months ago  Exited (255) 7 months ago  80/tcp
aravel-base     d802366fe7e66  laravel-base  "apache2ctl -D FOREG..."  7 months ago  Exited (255) 7 months ago  0.0.0.0:8001->80/tcp, [::]:8001->80/tcp
aravel          b038306868cfa  38a01ab4ee0c  "docker-entrypoint.s..."  7 months ago  Exited (137) 7 months ago
angular-app-port80  340eefaf9c34  38a01ab4ee0c  "docker-entrypoint.s..."  7 months ago  Exited (137) 7 months ago
aravel-app-port4200  029c5c208d46e  laravel-base:latest  "apache2ctl -D FOREG..."  7 months ago  Exited (255) 7 months ago
aravel-app-port80  05ae27901361  mysql:5.7   "docker-entrypoint.s..."  7 months ago  Restarting (1) 53 seconds ago
vsol           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] y
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      RECLAMABLE
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
root@thinkpad-e14-gen-3:~# 
```

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
34fd9942b7c	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.

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
34fd9942b7c	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
-rw-rwxrwx  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
drwxr-xr-x 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
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 1207 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?

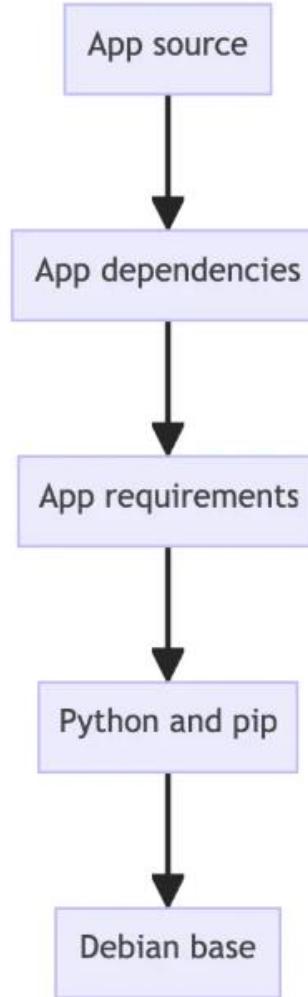
Container images are in standadized packages that are included all of the file, binaries, Libraries and configurations to run a container.

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> 1st layer add basic commands and a package manager such as apt.
- 2> 2nd layer install a dependancy management.
- 3> 3rd layer copied in an specific requirement.txt file.
- 4> 4th layer install application specific dependancies.
- 5> 5th 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
sha256:929f1f4bececa130eb361de3efa6b1bb2acb827952776aa532fc92670f929a4
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 persistant 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 8edcf5b5f4c08d0c380f2394901429b28afdf55d14e13bb3b9ba6c56014dbf0f8
brw----- 1 root root 259, 2 Mar 19 12:41 backingFsBlockDev
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 specify 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        8edcf5b5f4c08d0c380f2394901429b28afdf55d14e13bb3b9ba6c56014dbf0f8
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
772bd3cef6c7e920392b03118d96535cff4504d5960570ed9b5f5fe62f47e82
```

Rename a volume: - **docker run -d -v Mrch_19:/app/server -v March_19:/app/server_backup 929f1f4becec**

```
ps aux | grep docker
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker run -d -v Mrch_19:/app/server -v March_19:/app/server_backup 929f1f4becec
45f6ccf8df2fabbf44c78afda13a28782c48d3caef1ed4d3cefef5a43af97fcf
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED             STATUS              PORTS               NAMES
45f6ccf8df2f   929f1f4becec   "docker-entrypoint.s..."   18 seconds ago    Up 17 seconds   4000/tcp            silly_beaver
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# 
```



```
root@thinkpad-e14-gen-3:/home/mahendrakumar-v# docker volume ls
DRIVER      VOLUME NAME
local        4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b06
local        8edcf5b5f4c08d0c380f2394901429b28afdf55d14e13bb3b9ba6c56014dbf0f8
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 - [45f6ccf8df2fab8fe44c78afda13a28782c48d3ca6f1e4d3dcfe5a43af97fcf]
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 - [45f6ccf8df2fab8fe44c78afda13a28782c48d3ca6f1e4d3dcfe5a43af97fcf]
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:
4f65432f75fe365da31e10696d16e18ec8f872d705b639410b8830adc89d9b66
8edcf5b5f4c08d0c380f2394901429b28af855d14e13bb3b9ba6c56014dbf0f8
ce9dfad4881b67741f60ed58ca2e944aad90e041dc517b2fa541324dd730bb24
f0cefd78901c36617b51cee74eb912eb6859378fdf1db5920a09fe59e88944fd

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 interact 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 **hired 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 engin, The **brige network automatically** created by default.

The correspondent 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 engin** 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 1st disconnect 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`

```

y3qc
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 Nework: `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:
mahi-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
bc5929dc97476dc402dced5cfdd2b9fb2beb9560ee1b19100b4511d7a979ac8
c4fbfd984bcc26bc227faee7e54fa8b00e2e67dbf6fb0d09692781a57a9aa2cc
d52804194ca8b67dbf61bdff7b88dbc2bf10871f29263c3333d93b60675345c4
a12c835634e5ed7396bb801873dab08a4cdbe0a7eb4c0e89842797becc1a86b6
014194a69661ae438a626c17e8ba3c80291676eea5a1131fc388edc67dcffd
53feb7d431fe3da828dd637886a1ba5c941e495e067e20c8be85ecc46f2612b
8a888c76e7038b38272434bd397781332efb95d2eabc2ee60a73f7909f5b1c13
aa2224e7864a11f000de45ad755bc47329357035316abe8966a39ab1f5193890
ae7427fb751506413b2ef6b54511c339726781588313357288444c81e2049b25
c9ce99f545e508a5e9027c0c3ca264e3c6761b9ddb881d24b4cdccbf9dd70740
052d0108169b9683b78a5752ba174204be9247558aa88408fc4daa2fca9e9230
9b0146d6cc9beaf75e4adebe8b3992f140e72f4fe6ef110abb1468185363b37
a3f9d90769d77dc8749bd8b2bc1a75c24a42e0b4c024b0c1379c93027b12c64e
4bc219fe9a9e3bbff3f20f2a1447f79f845b89df4004a8f4e7f145cf3a06201b
b6feb342263be083d3a22fe3cd9a925f0d3f12f093baef40750a820c32cdbf3
b7e4cad5591f17be96d1286ec4854b318848548ef784db5dac21a780c699760
48e576b7146c1e707e4774b9af73959ff4cdc096f7b7981de7f36d323773755a
d4280e26edaa1eb2138016e7d89aa357458ec3f611af178053af6776640cc8da
7322b6ccb2ed60abf84b0a95a6e257c520465d8ef81ba1df7ace621f56ad0f99
7e380367903ffc053fec7338514c8846aedda52f730f3fea4658692b2111062f
040c87dd0bfca7fe1edd1bec53a370f0068faa6be5c68347a193121e26bfeb8
71e72d3853c0e13e6f64f0f988db890b37da49915b8a76e7e11baf0ecb71d6a6
cfa16df9f87ba7b934ff991f2790f233f2704e68975703da4b166aa219231723
40f61c49cd5448cce83e716aa3f09d8c2913b4a4c052baf5450a274bd4376832
560d31424d9ac0f45226a351498de13998456d6ea7b3d7fb52dd163167c8de96
7824e8a69578e971d6f24b4e689446cf435ff93dbb55391980d8b0f89263c635
aebc5de8bf88a6468e201ac3009424a3e97020c494010bc4f973778951e8e61b
3487608f49d07419bba6608adc453cf82e190f7c3e71206c0b8c7c787b432bc6
1fc27fe0ef27657f492a856ef384e593dc36fba45369ec61cd1836441f0a0ac0
93fe2a29a50c5d1cbeb186ed0b3e445f7ddde409b99b74325a6966d41f1c3839
812378133d339bd7e866de3d538a7f6f870396ff22cd973bb5c7c95457c018d2
39f68c2229f33dfa48776cb8964a091b2b258b6a4e01db4b5f529d00e98d4460
6c57529f2793036f63c91fc5ad22d161acfcc2981521a08f14ba9253e1ffa61b3
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
root@thinkpad-e14-gen-3:/home/mahendrakumar-v#
```

```
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#
```

```
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",
root@thinkpad-e14-gen-3:/home/mahendrakumar-v#
```

All The Best



