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Batch- K-11

Assignment No. 2-b

Commands:

sudo apt-get remove docker docker-engine docker.io containerd runc
sudo apt-get update

**sudo apt-get install **
**>   ca-certificates **
**>   curl **
**>   gnupg **
>   lsb-release

```
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo apt-get install \
> ca-certificates \
> curl \
> gnupg \
> lsb-release
Reading package lists... Done
Building dependency tree
Reading state information... Done
lsb-release is already the newest version (11.1.0ubuntu2).
lsb-release set to manually installed.
The following packages were automatically installed and are no longer required:
  libfprint-2-tod1 libfwupdplugin1 libllvm10 shim
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  dirmngr gnupg-l10n gnupg-utils gpg gpg-agent gpg-wks-client gpg-wks-server gpgconf gpgsm gpgv libcurl4
Suggested packages:
  tor parcimonie xloadimage scdaemon
The following NEW packages will be installed:
  curl
The following packages will be upgraded:
  ca-certificates dirmngr gnupg gnupg-l10n gnupg-utils gpg gpg-agent gpg-wks-client gpg-wks-server gpgconf gpgsm gpgv libcurl4
13 upgraded, 1 newly installed, 0 to remove and 276 not upgraded.
Need to get 3,099 kB of archives.
After this operation, 406 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpg-wks-client amd64 2.2.19-3ubuntu2.2 [97.4 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 dirmngr amd64 2.2.19-3ubuntu2.2 [330 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpg-wks-server amd64 2.2.19-3ubuntu2.2 [90.2 kB]
Get:4 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gnupg-utils amd64 2.2.19-3ubuntu2.2 [481 kB]
Get:5 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpg-agent amd64 2.2.19-3ubuntu2.2 [232 kB]
Get:6 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpg amd64 2.2.19-3ubuntu2.2 [482 kB]
Get:7 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpgconf amd64 2.2.19-3ubuntu2.2 [124 kB]
Get:8 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gnupg-l10n all 2.2.19-3ubuntu2.2 [51.7 kB]
Get:9 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gnupg all 2.2.19-3ubuntu2.2 [259 kB]
Get:10 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpgsm amd64 2.2.19-3ubuntu2.2 [217 kB]
Get:11 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 gpgv amd64 2.2.19-3ubuntu2.2 [200 kB]
Get:12 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 ca-certificates all 20211016ubuntu0.20.04.1 [141 kB]
Get:13 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 libcurl4 amd64 7.68.0-1ubuntu2.16 [235 kB]
Get:14 http://in.archive.ubuntu.com/ubuntu focal-updates/main amd64 curl amd64 7.68.0-1ubuntu2.16 [161 kB]
Fetched 3,099 kB in 7s (438 kB/s)
Preconfiguring packages ...
(Reading database ... 189008 files and directories currently installed.)
Preparing to unpack .../00-gpg-wks-client_2.2.19-3ubuntu2.2_amd64.deb ...
Unpacking gpg-wks-client (2.2.19-3ubuntu2.2) over (2.2.19-3ubuntu2.1) ...
Preparing to unpack .../01-dirmngr_2.2.19-3ubuntu2.2_amd64.deb ...
Unpacking dirmngr (2.2.19-3ubuntu2.2) over (2.2.19-3ubuntu2.1) ...
Preparing to unpack .../02-gpg-wks-server_2.2.19-3ubuntu2.2_amd64.deb ...
Unpacking gpg-wks-server (2.2.19-3ubuntu2.2) over (2.2.19-3ubuntu2.1) ...
Preparing to unpack .../03-gnupg-utils_2.2.19-3ubuntu2.2_amd64.deb ...
Unpacking gnupg-utils (2.2.19-3ubuntu2.2) over (2.2.19-3ubuntu2.1) ...
```

ashutosh@ashutosh-HP-Laptop-15s-gr0xxx: ~/Desktop

```
done.
done.
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo mkdir -m 0755 -p /etc/apt/keyrings
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ curl -fdSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg
  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
100     2    0     0  100     2      0     18 --:--:-- --:--:-- --:--:--    18
curl: (22) The requested URL returned error: 403
gpg: no valid OpenPGP data found.
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg
File '/etc/apt/keyrings/docker.gpg' exists. Overwrite? (y/N) y
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ echo \
> "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \
> $(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
dpkg: error: unknown option --[print-architecture

Type dpkg --help for help about installing and deinstalling packages [*];
Use 'apt' or 'aptitude' for user-friendly package management;
Type dpkg -Dhelp for a list of dpkg debug flag values;
Type dpkg --force-help for a list of forcing options;
Type dpkg-deb --help for help about manipulating *.deb files;

Options marked [*] produce a lot of output - pipe it through 'less' or 'more' !
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ echo "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu \
$(lsb_release -cs) stable" | sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo apt-get update
Get:1 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]
Hit:2 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:3 https://dl.google.com/linux/chrome/deb stable InRelease
Hit:4 http://in.archive.ubuntu.com/ubuntu focal InRelease
Get:5 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages [24.7 kB]
Hit:6 http://in.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:7 http://in.archive.ubuntu.com/ubuntu focal-backports InRelease
Fetched 82.4 kB in 1s (59.9 kB/s)
Reading package lists... Done
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo chmod a+r /etc/apt/keyrings.docker.gpg
chmod: cannot access '/etc/apt/keyrings.docker.gpg': No such file or directory
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo chmod a+r /etc/apt/keyrings/docker.gpg
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  libfprint-2-tod1 libfwupdplugin1 libllvm10 shim
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  docker-ce-rootless-extras docker-scan-plugin pigz slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
The following NEW packages will be installed:
  containerd.io docker-buildx-plugin docker-ce docker-ce-cli docker-ce-rootless-extras
  docker-compose-plugin docker-scan-plugin pigz slirp4netns
0 upgraded, 9 newly installed, 0 to remove and 276 not upgraded.
Need to get 112 MB of archives.
After this operation, 401 MB of additional disk space will be used.
```

sudo docker run hello-world
sudo systemctl status docker

```
Processing triggers for systemd (245.4-4ubuntu3.17) ...
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:6e8b6f026e0b9c419ea0fd02d3905dd0952ad1feea67543f525c73a0a790fefb
Status: Downloaded newer image for hello-world:latest

Hello from Docker!
This message shows that your installation appears to be working correctly.

To generate this message, Docker took the following steps:
 1. The Docker client contacted the Docker daemon.
 2. The Docker daemon pulled the "hello-world" image from the Docker Hub.
    (amd64)
 3. The Docker daemon created a new container from that image which runs the
    executable that produces the output you are currently reading.
 4. The Docker daemon streamed that output to the Docker client, which sent it
    to your terminal.

To try something more ambitious, you can run an Ubuntu container with:
 $ docker run -it ubuntu bash

Share images, automate workflows, and more with a free Docker ID:
 https://hub.docker.com/

For more examples and ideas, visit:
 https://docs.docker.com/get-started/

ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: enabled)
     Active: active (running) since Sat 2023-03-04 10:04:55 IST; 1min 58s ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 12677 (dockerd)
      Tasks: 13
     Memory: 31.5M
     CGroup: /system.slice/docker.service
             └─12677 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Mar 04 10:04:53 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:53.945504462+05>
Mar 04 10:04:54 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:54.445600197+05>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:55.251745130+05>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:55.471196610+05>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:55.603223847+05>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:55.603414396+05>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:55.772163948+05>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx systemd[1]: Started Docker Application Container Engin>
Mar 04 10:04:55 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:04:55.781569995+05>
Mar 04 10:06:22 ashutosh-HP-Laptop-15s-gr0xxx dockerd[12677]: time="2023-03-04T10:06:22.804427150+05>

ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker search ubuntu
NAME                      DESCRIPTION                                STARS   OFFICIAL   AUTOMATED
ubuntu                    Ubuntu is a Debian-based Linux operating sys…  15668   [OK]
websphere-liberty         WebSphere Liberty multi-architecture images …  292     [OK]
```

Working with Docker Images

Running a Docker Container

 sudo docker run -it ubuntu
root@68cb2e3a411d:/# apt update

root@68cb2e3a411d:/# apt install nodejs
root@68cb2e3a411d:/# node -v

Managing Docker Containers

Committing Changes in a Container to a Docker Image

docker commit -m "What you did to the image" -a "Author Name" container_id
repository/new_image_name

```
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker search ubuntu
NAME                          DESCRIPTION                                 STARS    OFFICIAL   AUTOMATED
ubuntu                        Ubuntu is a Debian-based Linux operating sys… 15668   [OK]
websphere-liberty             WebSphere Liberty multi-architecture images … 292     [OK]
open-liberty                  Open Liberty multi-architecture images based… 58      [OK]
neurodebian                   NeuroDebian provides neuroscience research s… 99      [OK]
ubuntu-debootstrap            DEPRECATED; use "ubuntu" instead              50      [OK]
ubuntu-upstart                DEPRECATED, as is Upstart (find other proces… 112     [OK]
ubuntu/nginx                  Nginx, a high-performance reverse proxy & we… 79
ubuntu/cortex                 Cortex provides storage for Prometheus. Long… 3
ubuntu/apache2                Apache, a secure & extensible open-source HT… 53
ubuntu/squid                  Squid is a caching proxy for the Web. Long-t… 52
ubuntu/mysql                  MySQL open source fast, stable, multi-thread… 42
ubuntu/redis                  Redis, an open source key-value store. Long-… 16
ubuntu/bind9                  BIND 9 is a very flexible, full-featured DNS… 46
ubuntu/prometheus             Prometheus is a systems and service monitor… 38
ubuntu/postgres               PostgreSQL is an open source object-relation… 25
ubuntu/kafka                  Apache Kafka, a distributed event streaming … 25
ubuntu/zookeeper              ZooKeeper maintains configuration informatio… 5
ubuntu/grafana                Grafana, a feature rich metrics dashboard & … 7
ubuntu/memcached              Memcached, in-memory keyvalue store for smal… 5
ubuntu/prometheus-alertmanager Alertmanager handles client alerts from Prom… 8
ubuntu/cassandra              Cassandra, an open source NoSQL distributed … 2
ubuntu/dotnet-deps            Chiselled Ubuntu for self-contained .NET & A… 6
ubuntu/telegraf               Telegraf collects, processes, aggregates & w… 4
ubuntu/dotnet-runtime         Chiselled Ubuntu runtime image for .NET apps… 5
ubuntu/dotnet-aspnet          Chiselled Ubuntu runtime image for ASP.NET a… 3
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker pull ubuntu
Using default tag: latest
latest: Pulling from library/ubuntu
76769433fd8a: Pull complete
Digest: sha256:2adf22367284330af9f832ffefb717c78239f6251d9d0f58de50b86229ed1427
Status: Downloaded newer image for ubuntu:latest
docker.io/library/ubuntu:latest
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker images
REPOSITORY    TAG       IMAGE ID       CREATED        SIZE
ubuntu        latest    74f2314a03de   3 days ago     77.8MB
hello-world   latest    feb5d9fea6a5   17 months ago  13.3kB
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker run -it ubuntu
root@cc1311c38fb0:/# apt update
Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [883 kB]
Get:4 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [5557 B]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [823 kB]
Get:7 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]
Get:10 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [853 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1792 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [266 kB]
Get:13 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [880 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1123 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1187 kB]
```

```
All packages are up to date.
root@cc1311c38fb0:/# apt install nodejs
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  ca-certificates javascript-common libbrotli1 libc-ares2 libicu70 libjs-highlight.js libnghttp2-14
  libnode72 libuv1 nodejs-doc openssl
Suggested packages:
  apache2 | lighttpd | httpd npm
The following NEW packages will be installed:
  ca-certificates javascript-common libbrotli1 libc-ares2 libicu70 libjs-highlight.js libnghttp2-14
  libnode72 libuv1 nodejs nodejs-doc openssl
0 upgraded, 12 newly installed, 0 to remove and 0 not upgraded.
Need to get 26.1 MB of archives.
After this operation, 93.0 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 openssl amd64 3.0.2-0ubuntu1.8 [1184 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 ca-certificates all 20211016ubuntu0.22.04.1 [144 kB]
Get:3 http://archive.ubuntu.com/ubuntu jammy/main amd64 libicu70 amd64 70.1-2 [10.6 MB]
Get:4 http://archive.ubuntu.com/ubuntu jammy/main amd64 libnghttp2-14 amd64 1.43.0-1build3 [76.3 kB]
Get:5 http://archive.ubuntu.com/ubuntu jammy/main amd64 libuv1 amd64 1.43.0-1 [93.1 kB]
Get:6 http://archive.ubuntu.com/ubuntu jammy/main amd64 javascript-common all 11+nmu1 [5936 B]
Get:7 http://archive.ubuntu.com/ubuntu jammy/main amd64 libbrotli1 amd64 1.0.9-2build6 [315 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libjs-highlight.js all 9.18.5+dfsg1-1 [367 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 libc-ares2 amd64 1.18.1-1ubuntu0.22.04.1 [45.1 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/universe amd64 libnode72 amd64 12.22.9~dfsg-1ubuntu3 [10.8 MB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/universe amd64 nodejs-doc all 12.22.9~dfsg-1ubuntu3 [2409 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/universe amd64 nodejs amd64 12.22.9~dfsg-1ubuntu3 [122 kB]
Fetched 26.1 MB in 27s (962 kB/s)
debconf: delaying package configuration, since apt-utils is not installed
Selecting previously unselected package openssl.
(Reading database ... 4395 files and directories currently installed.)
Preparing to unpack .../00-openssl_3.0.2-0ubuntu1.8_amd64.deb ...
Unpacking openssl (3.0.2-0ubuntu1.8) ...
Selecting previously unselected package ca-certificates.
Preparing to unpack .../01-ca-certificates_20211016ubuntu0.22.04.1_all.deb ...
Unpacking ca-certificates (20211016ubuntu0.22.04.1) ...
Selecting previously unselected package libicu70:amd64.
Preparing to unpack .../02-libicu70_70.1-2_amd64.deb ...
Unpacking libicu70:amd64 (70.1-2) ...
Selecting previously unselected package libnghttp2-14:amd64.
Preparing to unpack .../03-libnghttp2-14_1.43.0-1build3_amd64.deb ...
Unpacking libnghttp2-14:amd64 (1.43.0-1build3) ...
Selecting previously unselected package libuv1:amd64.
Preparing to unpack .../04-libuv1_1.43.0-1_amd64.deb ...
Unpacking libuv1:amd64 (1.43.0-1) ...
Selecting previously unselected package javascript-common.
Preparing to unpack .../05-javascript-common_11+nmu1_all.deb ...
Unpacking javascript-common (11+nmu1) ...
Selecting previously unselected package libbrotli1:amd64.
Preparing to unpack .../06-libbrotli1_1.0.9-2build6_amd64.deb ...
Unpacking libbrotli1:amd64 (1.0.9-2build6) ...
Selecting previously unselected package libjs-highlight.js.
Preparing to unpack .../07-libjs-highlight.js_9.18.5+dfsg1-1_all.deb ...
Unpacking libjs-highlight.js (9.18.5+dfsg1-1)
```

```
debconf: unable to initialize frontend: Dialog
debconf: (No usable dialog-like program is installed, so the dialog based frontend cannot be used. at
/usr/share/perl5/Debconf/FrontEnd/Dialog.pm line 78.)
debconf: falling back to frontend: Readline
debconf: unable to initialize frontend: Readline
debconf: (Can't locate Term/ReadLine.pm in @INC (you may need to install the Term::ReadLine module) (
@INC contains: /etc/perl /usr/local/lib/x86_64-linux-gnu/perl/5.34.0 /usr/local/share/perl/5.34.0 /us
r/lib/x86_64-linux-gnu/perl5/5.34 /usr/share/perl5 /usr/lib/x86_64-linux-gnu/perl-base /usr/lib/x86_6
4-linux-gnu/perl/5.34 /usr/share/perl/5.34 /usr/local/share/perl/site_perl) at /usr/share/perl5/Debconf/Fron
tEnd/Readline.pm line 7.)
debconf: falling back to frontend: Teletype
Updating certificates in /etc/ssl/certs...
124 added, 0 removed; done.
Setting up nodejs-doc (12.22.9~dfsg-1ubuntu3) ...
Setting up nodejs (12.22.9~dfsg-1ubuntu3) ...
update-alternatives: using /usr/bin/nodejs to provide /usr/bin/js (js) in auto mode
update-alternatives: warning: skip creation of /usr/share/man/man1/js.1.gz because associated file /u
sr/share/man/man1/nodejs.1.gz (of link group js) doesn't exist
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...
Processing triggers for ca-certificates (20211016ubuntu0.22.04.1) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...
done.
root@cc1311c38fb0:/# node -v
v12.22.9
root@cc1311c38fb0:/# ^C
root@cc1311c38fb0:/# ^C
root@cc1311c38fb0:/# ^C
root@cc1311c38fb0:/# exit
exit
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker ps
CONTAINER ID   IMAGE     COMMAND     CREATED    STATUS      PORTS      NAMES
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker ps -a
CONTAINER ID   IMAGE          COMMAND       CREATED         STATUS                      PORTS     NAMES
cc1311c38fb0   ubuntu         "/bin/bash"   2 minutes ago   Exited (130) 15 seconds ago           exciting_mestorf
1fe0a4f11526   hello-world    "/hello"      4 minutes ago   Exited (0) 4 minutes ago              peaceful_faraday
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker ps -l
CONTAINER ID   IMAGE     COMMAND       CREATED         STATUS                      PORTS     NAMES
cc1311c38fb0   ubuntu    "/bin/bash"   2 minutes ago   Exited (130) 25 seconds ago           exciting_mestorf
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker start cc1311c38fb0
cc1311c38fb0
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker ps
CONTAINER ID   IMAGE     COMMAND       CREATED         STATUS          PORTS     NAMES
cc1311c38fb0   ubuntu    "/bin/bash"   3 minutes ago   Up 10 seconds             exciting_mestorf
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker stop magical_einstein
Error response from daemon: No such container: magical_einstein
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker commit -m "added Node.js" -a "Ashutosh" cc1311c38fb0 ashutosh/ubuntu-nodejs
sha256:4e42bf3df183b62ab05605e9fb61aa7edd35c989a8c8c19e9ade201553f125f8
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$ sudo docker images
REPOSITORY               TAG       IMAGE ID       CREATED         SIZE
ashutosh/ubuntu-nodejs   latest    4e42bf3df183   7 seconds ago   204MB
ubuntu                   latest    74f2314a03de   3 days ago      77.8MB
hello-world              latest    feb5d9fea6a5   17 months ago   13.3kB
ashutosh@ashutosh-HP-Laptop-15s-gr0xxx:~/Desktop$
```