LAPORAN MATA KULIAH KOMPUTASI AWAN

Docker

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**PROGRAM STUDI TEKNIK INFORMATIKA JURUSAN
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MALANG**

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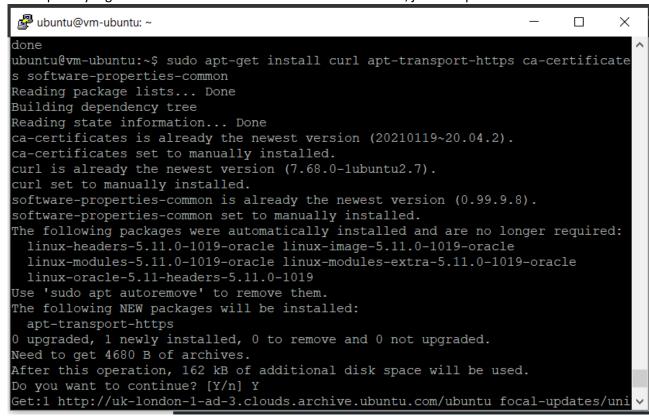Install Docker :

- Langkah 1 :
  Silakan masuk ke virtual mesin Anda kemudian jalankan perintah di bawah ini.

```
ubuntu@vm-ubuntu: ~                                          —   □   ✕
ubuntu@vm-ubuntu:~$ sudo apt update && sudo apt upgrade
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Hit:2 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal InRelease
Get:3 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-updates InR
elease [114 kB]
Get:4 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-backports I
nRelease [101 kB]
Get:5 http://security.ubuntu.com/ubuntu focal-security/main amd64 Packages [987
kB]
Get:6 http://security.ubuntu.com/ubuntu focal-security/main Translation-en [183
kB]
Get:7 http://security.ubuntu.com/ubuntu focal-security/main amd64 c-n-f Metadata
 [8880 B]
Get:8 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 Packages
 [526 kB]
Get:9 http://security.ubuntu.com/ubuntu focal-security/restricted Translation-en
 [75.4 kB]
Get:10 http://security.ubuntu.com/ubuntu focal-security/restricted amd64 c-n-f M
etadata [528 B]
Get:11 http://security.ubuntu.com/ubuntu focal-security/universe amd64 Packages
[653 kB]
Get:12 http://security.ubuntu.com/ubuntu focal-security/universe Translation-en
[107 kB]
Get:13 http://security.ubuntu.com/ubuntu focal-security/universe amd64 c-n-f Met
```

- Langkah 2 :
  Install paket yang dibutuhkan sebelum melakukan installasi docker, jalankan perintah di bawah ini

```
ubuntu@vm-ubuntu: ~                                          —   □   ✕
done
ubuntu@vm-ubuntu:~$ sudo apt-get install curl apt-transport-https ca-certificate
s software-properties-common
Reading package lists... Done
Building dependency tree
Reading state information... Done
ca-certificates is already the newest version (20210119~20.04.2).
ca-certificates set to manually installed.
curl is already the newest version (7.68.0-1ubuntu2.7).
curl set to manually installed.
software-properties-common is already the newest version (0.99.9.8).
software-properties-common set to manually installed.
The following packages were automatically installed and are no longer required:
  linux-headers-5.11.0-1019-oracle linux-image-5.11.0-1019-oracle
  linux-modules-5.11.0-1019-oracle linux-modules-extra-5.11.0-1019-oracle
  linux-oracle-5.11-headers-5.11.0-1019
Use 'sudo apt autoremove' to remove them.
The following NEW packages will be installed:
  apt-transport-https
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 4680 B of archives.
After this operation, 162 kB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-updates/uni
```

- Langkah 3 :
  Langkah selanjutnya yaitu menambahkan repository docker, dengan beberapa baris perintah di bawah ini

```
ubuntu@vm-ubuntu:~$ sudo add-apt-repository "deb [arch=64] https://download.
er.com/linux/ubuntu $(lsb_release -cs) stable"
Get:1 http://security.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:2 https://download.docker.com/linux/ubuntu focal InRelease [57.7 kB]
Hit:3 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal InRelea
Get:4 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-updates
elease [114 kB]
Get:5 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-backpor
nRelease [101 kB]
Fetched 386 kB in 1s (351 kB/s)
Reading package lists... Done
N: Skipping acquire of configured file 'stable/binary-64/Packages' as reposi
 'https://download.docker.com/linux/ubuntu focal InRelease' doesn't support
itecture '64'
```

```
ubuntu@vm-ubuntu:~$ sudo apt update
Hit:1 https://download.docker.com/linux/ubuntu focal InRelease
Hit:2 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal InRelease
Hit:3 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:4 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-updates InR
elease
Hit:5 http://uk-london-1-ad-3.clouds.archive.ubuntu.com/ubuntu focal-backports I
nRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
All packages are up to date.
```

```
ubuntu@vm-ubuntu:~$ apt-cache policy docker-ce
docker-ce:
  Installed: (none)
  Candidate: 5:20.10.10~3-0~ubuntu-focal
  Version table:
     5:20.10.10~3-0~ubuntu-focal 500
        500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
     5:20.10.9~3-0~ubuntu-focal 500
        500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
     5:20.10.8~3-0~ubuntu-focal 500
        500 https://download.docker.com/linux/ubuntu focal/stable amd64 Packages
     5:20.10.7~3-0~ubuntu-focal 500
```

```
ubuntu@vm-ubuntu:~$ sudo apt install docker-ce
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following packages were automatically installed and are no longer required:
  linux-headers-5.11.0-1019-oracle linux-image-5.11.0-1019-oracle
  linux-modules-5.11.0-1019-oracle linux-modules-extra-5.11.0-1019-oracle
  linux-oracle-5.11-headers-5.11.0-1019
Use 'sudo apt autoremove' to remove them.
The following additional packages will be installed:
  containerd.io docker-ce-cli docker-ce-rootless-extras docker-scan-plugin
  pigz slirp4netns
Suggested packages:
  aufs-tools cgroupfs-mount | cgroup-lite
```

```
ubuntu@vm-ubuntu:~$ sudo systemctl status docker
● docker.service - Docker Application Container Engine
     Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset>
     Active: active (running) since Wed 2021-11-17 13:58:51 UTC; 1min 6s ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 26182 (dockerd)
      Tasks: 8
     Memory: 30.4M
     CGroup: /system.slice/docker.service
             └─26182 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/con>

Nov 17 13:58:50 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:50.228724121Z">
Nov 17 13:58:50 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:50.228764466Z">
Nov 17 13:58:50 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:50.229018443Z">
Nov 17 13:58:50 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:50.530247106Z">
Nov 17 13:58:50 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:50.807180731Z">
Nov 17 13:58:51 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:51.001987607Z">
Nov 17 13:58:51 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:51.002193924Z">
Nov 17 13:58:51 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:51.002293691Z">
Nov 17 13:58:51 vm-ubuntu systemd[1]: Started Docker Application Container Engi>
Nov 17 13:58:51 vm-ubuntu dockerd[26182]: time="2021-11-17T13:58:51.115604785Z">
lines 1-21/21 (END)
```

```
ubuntu@vm-ubuntu:~$ sudo docker run hello-world
Unable to find image 'hello-world:latest' locally
latest: Pulling from library/hello-world
2db29710123e: Pull complete
Digest: sha256:cc15c5b292d8525effc0f89cb299f1804f3a725c8d05e158653a563f15e4f685
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.
```

```
ubuntu@vm-ubuntu:~$ sudo su^C
ubuntu@vm-ubuntu:~$ sudo usermod -aG docker $(whoami)
ubuntu@vm-ubuntu:~$ docker images
Got permission denied while trying to connect to the Docker daemon socket at uni
x:///var/run/docker.sock: Get "http://%2Fvar%2Frun%2Fdocker.sock/v1.24/images/js
on": dial unix /var/run/docker.sock: connect: permission denied
ubuntu@vm-ubuntu:~$ sudo docker images
REPOSITORY     TAG        IMAGE ID       CREATED        SIZE
hello-world    latest     feb5d9fea6a5   7 weeks ago    13.3kB
ubuntu@vm-ubuntu:~$
```

Membuat Container :

- Langkah 1 :

```
ubuntu@vm-ubuntu:~$ sudo docker run -d --name contoh-apache -p 8080:80 httpd:lat
est
Unable to find image 'httpd:latest' locally
latest: Pulling from library/httpd
eff15d958d66: Pull complete
ba1caf8ba86c: Pull complete
ab86dc02235d: Pull complete
600feb748d3c: Pull complete
635a49ba2501: Pull complete
Digest: sha256:fe074a671e8efae689a61ce7321816ae654af19be828a8477d3a38630945b118
Status: Downloaded newer image for httpd:latest
32ebed273bba42c1d380c8cd5053de31adeb7c7e16c7612c9dd1f900628672c8
ubuntu@vm-ubuntu:~$
```

- Langkah 2 :

```
ubuntu@vm-ubuntu:~$ telnet localhost 8080
Trying 127.0.0.1...
Connected to localhost.
Escape character is '^]'.
Connection closed by foreign host.
ubuntu@vm-ubuntu:~$
```