



**INSTITUT TEKNOLOGI DEL**  
**MATERI PRAKTIKUM**  
**PENGEMBANGAN APLIKASI TERDISTRIBUSI**

Session Date	:	05 February 2021
Semester	:	III
Courses	:	1132203 – Pengembangan Aplikasi Terdistribusi
Week/Session	:	02/03
Key Topics	:	Instalasi DOcker
Activity	:	Praktikum
Duration	:	-
Deliverables	:	Laporan instalasi dalam file <b>w02s03_laporanInstalasi_NIM.doc/x</b>
Deadline of deliverables	:	Jumat, 05 February 2021, Pukul 21:00 WIB
Goal	:	Mahasiswa mampu melakukan instalasi Docker pada perangkat masing-masing

### INSTALASI DOCKER PADA UBUNTU

1. Pastikan pada perangkat anda telah terinstall Ubuntu dan terhubung dengan internet.
2. Pada terminal, tuliskan command **sudo apt update** lalu tunggu hingga proses update selesai dilakukan.

```
sarah@sarah-Lenovo-G40-70: ~  
File Edit View Search Terminal Help  
To run a command as administrator (user "root"), use "sudo <command>".  
See "man sudo_root" for details.  
  
sarah@sarah-Lenovo-G40-70:~$ sudo apt update  
[sudo] password for sarah:  
Get:1 http://security.ubuntu.com/ubuntu bionic-security InRelease [88,7 kB]  
Get:2 http://id.archive.ubuntu.com/ubuntu bionic InRelease [242 kB]  
Get:3 http://security.ubuntu.com/ubuntu bionic-security/main i386 Packages [910 kB]  
Get:4 http://id.archive.ubuntu.com/ubuntu bionic-updates InRelease [88,7 kB]  
Get:5 http://id.archive.ubuntu.com/ubuntu bionic-backports InRelease [74,6 kB]  
Get:6 http://id.archive.ubuntu.com/ubuntu bionic/main amd64 Packages [1.019 kB]  
Get:7 http://id.archive.ubuntu.com/ubuntu bionic/main i386 Packages [1.007 kB]  
Get:8 http://security.ubuntu.com/ubuntu bionic-security/main amd64 Packages [1.537 kB]  
Get:9 http://id.archive.ubuntu.com/ubuntu bionic/main Translation-en [516 kB]  
Get:10 http://security.ubuntu.com/ubuntu bionic-security/main Translation-en [297 kB]  
Get:11 http://id.archive.ubuntu.com/ubuntu bionic/main amd64 DEP-11 Metadata [477 kB]  
Get:12 http://id.archive.ubuntu.com/ubuntu bionic/main DEP-11 48x48 Icons [118 kB]  
Get:13 http://id.archive.ubuntu.com/ubuntu bionic/main DEP-11 64x64 Icons [245 kB]  
Get:14 http://id.archive.ubuntu.com/ubuntu bionic/restricted i386 Packages [9.156 B]
```

3. kemudian lanjutkan dengan command: **sudo apt install apt-transport-https ca-certificates curl software-properties-common**

```
sarah@sarah-Lenovo-G40-70: ~  
File Edit View Search Terminal Help  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
224 packages can be upgraded. Run 'apt list --upgradable' to see them.  
sarah@sarah-Lenovo-G40-70:~$ sudo apt install apt-transport-https ca-certificates curl software-properties-common  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following additional packages will be installed:  
  libcurl4 python3-software-properties software-properties-gtk  
The following NEW packages will be installed:  
  apt-transport-https curl libcurl4  
The following packages will be upgraded:  
  ca-certificates python3-software-properties software-properties-common software-properties-gtk  
4 upgraded, 3 newly installed, 0 to remove and 220 not upgraded.  
Need to get 618 kB of archives.  
After this operation, 1.190 kB of additional disk space will be used.  
Do you want to continue? [Y/n]
```

```
curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
```

5. Gunakan command ini untuk menambahkan repositori Docker ke repository APT: **sudo add-apt-repository "deb [arch=amd64] [https://download.docker.com/linux/ubuntu focal stable](https://download.docker.com/linux/ubuntu/focal/stable)"**

7. Kemudian lanjutkan dengan command: **apt-cache policy docker-ce**. Seharusnya, output yang dihasilkan mirip dengan gambar di bawah ini.

9. Setelah proses instalasi selesai, periksa status docker dengan menggunakan command ini:

**sudo systemctl status docker.** Seharusnya output nya seperti gambar di bawah ini yang menyatakan bahwa Docker sudah aktif dan berjalan.

```
sarah@sarah-Lenovo-G40-70: ~
File Edit View Search Terminal Help
sarah@sarah-Lenovo-G40-70:~$ sudo systemctl status docker
[sudo] password for sarah:
● docker.service - Docker Application Container Engine
   Loaded: loaded (/lib/systemd/system/docker.service; enabled; vendor preset: e
   Active: active (running) since Fri 2021-02-05 07:58:14 WIB; 51min ago
     Docs: https://docs.docker.com
    Main PID: 1795 (dockerd)
      Tasks: 13
     CGroup: /system.slice/docker.service
             └─1795 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/contain

Feb 05 07:58:12 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:12.295
Feb 05 07:58:12 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:12.295
Feb 05 07:58:12 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:12.295
Feb 05 07:58:12 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:12.295
Feb 05 07:58:13 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:13.015
Feb 05 07:58:13 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:13.251
Feb 05 07:58:14 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:14.185
Feb 05 07:58:14 sarah-Lenovo-G40-70 dockerd[1795]: time="2021-02-05T07:58:14.194
Feb 05 07:58:14 sarah-Lenovo-G40-70 systemd[1]: Started Docker Application Conta
```

```
sarah@sarah-Lenovo-G40-70: ~
File Edit View Search Terminal Help
sarah@sarah-Lenovo-G40-70:~$ docker
Usage: docker [OPTIONS] COMMAND

A self-sufficient runtime for containers

Options:
  --config string      Location of client config files (default
                        "/home/sarah/.docker")
  -c, --context string  Name of the context to use to connect to the
                        daemon (overrides DOCKER_HOST env var and
                        default context set with "docker context use")
  -D, --debug           Enable debug mode
  -H, --host list       Daemon socket(s) to connect to
  -l, --log-level string Set the logging level
                        ("debug"|"info"|"warn"|"error"|"fatal")
                        (default "info")
  --tls                Use TLS; implied by --tlsverify
  --tlscacert string    Trust certs signed only by this CA (default
                        "/home/sarah/.docker/ca.pem")
  --tlscert string      Path to TLS certificate file (default
                        "/home/sarah/.docker/cert.pem")
```

Perintah Docker hanya dapat dijalankan oleh user root sehingga membutuhkan **sudo** pada awal setiap perintah docker yang akan dijalankan, untuk memastikan user tersebut bertindak sebagai root. Jika anda masuk bukan sebagai root namun ingin menggunakan perintah docker tanpa menggunakan **sudo**, maka anda harus menambahkan user tersebut ke dalam grup docker.