1. Pre-installation Docker

1)Set up the repository

```
$ sudo apt update
$ sudo apt-get install ca-certificates curl gnupg
```

2)Add Docker's official GPG key

```
$ sudo install -m 0755 -d /etc/apt/keyrings
$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo gpg --dearmor -o /etc/apt/keyrings/docker.gpg
$ sudo chmod a+r /etc/apt/keyrings/docker.gpg
```

3)Set up the stable repository

```
echo ₩
    "deb [arch=$(dpkg --print-architecture) signed-by=/etc/apt/keyrings/docker.gpg] https://download.docker.com/linux/ubuntu ₩
    $(. /etc/os-release && echo "$VERSION_CODENAME") stable" | ₩
    sudo tee /etc/apt/sources.list.d/docker.list > /dev/null
```

2. Installation Docker Engine

1)Repository update

```
$ sudo apt update
```

2)Install latest version of Docker engine and containerd

```
$ sudo apt-get install docker-ce docker-ce-cli containerd.io docker-buildx-plugin docker-compose-plugin
```

3. Post-installation Docker

1)Docker Service 상태 확인

```
$ 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 Tue 2024-01-09 11:15:35 UTC; 5min ago
TriggeredBy: ● docker.socket
       Docs: https://docs.docker.com
   Main PID: 2469 (dockerd)
      Tasks: 8
     Memory: 34.1M
        CPU: 321ms
     CGroup: /system.slice/docker.service
             └─2469 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock

Jan 09 11:15:35 ip-172-31-4-124 systemd[1]: Starting Docker Application Container Engine...
Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.148902052Z" level=info msg="Starting up"
Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.151154217Z" level=info msg="detected 127.0.0.53 nameserver, assuming systemd-resolved, so using resolv.conf: /run/systemd/resolve/res>Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.306600798Z" level=info msg="Loading containers: start."
Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.626878778Z" level=info msg="Loading containers: done."
Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.694477632Z" level=info msg="Docker daemon" commit=311b9ff graphdriver=overlay2 version=24.0.7
Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.694911232Z" level=info msg="Daemon has completed initialization"
Jan 09 11:15:35 ip-172-31-4-124 dockerd[2469]: time="2024-01-09T11:15:35.747364896Z" level=info msg="API listen on /run/docker.sock"
Jan 09 11:15:35 ip-172-31-4-124 systemd[1]: Started Docker Application Container Engine.
lines 1-21/21 (END)
```

2)현재 계정(ubuntu)를 docker group에 포함하기

```
$ sudo usermod -aG docker $USER
$ logout
$ id
uid=1000(ubuntu) gid=1000(ubuntu)
groups=1000(ubuntu),4(adm),20(dialout),24(cdrom),25(floppy),27(sudo),29(audio),30(dip),44(video),46(plugdev),
119(netdev),120(lxd),999(docker)
```

3)설치 버전 확인하기

```
$ docker version
Client: Docker Engine - Community
 Version:           24.0.7
 API version:       1.43
 Go version:        go1.20.10
 Git commit:        afdd53b
 Built:             Thu Oct 26 09:07:41 2023
 OS/Arch:           linux/amd64
 Context:           default

Server: Docker Engine - Community
 Engine:
  Version:          24.0.7
  API version:      1.43 (minimum version 1.12)
  Go version:       go1.20.10
  Git commit:       311b9ff
  Built:            Thu Oct 26 09:07:41 2023
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.6.26
  GitCommit:        3dd1e886e55dd695541fdcd67420c2888645a495
 runc:
  Version:          1.1.10
  GitCommit:        v1.1.10-0-g18a0cb0
 docker-init:
  Version:          0.19.0
  GitCommit:        de40ad0
```

4)hello-world Container Image 실행하기

```
$ sudo docker run hello-world
```