PRAKTIKUM MANAJEMEN DATA

DOCKER

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POLITEKNIK ELEKTRONIKA NEGERI SURABAYA

PROGRAM STUDI SAINS DATA TERAPAN

JUNI 2025

1. **Tugas 1**

Soal No. 1

Sintaks

```
vboxuser@desktop:~$ nano monssh.sh
```

Sintaks

```
 GNU nano 7.2                                  monssh.sh
#!/bin/bash

# Nama file log hasil
LOG_FILE="hasil_ssh.log"

# Interval cek dalam detik
INTERVAL=10
Help
echo "Mulai memonitor service ssh..." > $LOG_FILE

while true; do
    TIMESTAMP=$(date '+%Y-%m-%d %H:%M:%S')
    SERVICE_STATUS=$(systemctl is-active ssh)

    echo "$TIMESTAMP - Status SSH: $SERVICE_STATUS" >> $LOG_FILE

    if [ "$SERVICE_STATUS" != "active" ]; then
        echo "[$TIMESTAMP] ⚠ SSH Service tidak aktif!" | tee -a $LOG_
    fi

    sleep $INTERVAL
done
```

Sintaks

```
vboxuser@desktop:~$ chmod +x monssh.sh
vboxuser@desktop:~$ ./monssh.sh
[2025-06-08 07:51:13] ⚠ SSH Service tidak aktif!
[2025-06-08 07:51:24] ⚠ SSH Service tidak aktif!
[2025-06-08 07:51:34] ⚠ SSH Service tidak aktif!
```

Soal No. 2

Sintaks

```
vboxuser@desktop:~$ mkdir -p ~/data
vboxuser@desktop:~$ echo "file percobaan" > ~/data/file1.
vboxuser@desktop:~$ mkdir -p ~/backup
vboxuser@desktop:~$ nano ~/backup/backup.sh
```

Sintaks

```
  GNU nano 7.2                  /home/vboxuser/backup/backup.sh *
#!/bin/bash

SOURCE_DIR="$HOME/data"
BACKUP_DIR="$HOME/backup"
MAX_FILES=10
INTERVAL=15  # detik
DURATION=$((60*60))  # 1 jam = 3600 detik
COUNT=0

end=$((SECONDS+DURATION))

while [ $SECONDS -lt $end ]; do
    FILE_INDEX=$(( (COUNT % MAX_FILES) + 1 ))
    TIMESTAMP=$(date +"%Y%m%d_%H%M%S")
    tar -czf "$BACKUP_DIR/backup$FILE_INDEX.tar.gz" -C "$SOURCE_DIR" .
    echo "Backup ke-$FILE_INDEX selesai pada $TIMESTAMP"
    COUNT=$((COUNT+1))
    sleep $INTERVAL
done
```

Sintaks

```
vboxuser@desktop:~$ chmod +x ~/backup/backup.sh
vboxuser@desktop:~$ ~/backup/backup.sh
Backup ke-1 selesai pada 20250608_075709
Backup ke-2 selesai pada 20250608_075724
Backup ke-3 selesai pada 20250608_075739
Backup ke-4 selesai pada 20250608_075754
```

Soal 3

Sintaks

```
vboxuser@desktop:~$ nano data.txt
```

Sintaks

```
  GNU nano 7.2                                  data.txt *
timestamp          suhu  kelembaban  cahaya
2025-05-27T08:00   24.5     60         800
2025-05-27T08:15   25.0     62         850
2025-05-27T08:30   26.2     65         900
2025-05-27T08:45   27.1     67         950
```

Sintaks

```
vboxuser@desktop:~$ nano suhu_maks.awk
```

Sintaks

```
  GNU nano 7.2                                  suhu_maks.awk *
BEGIN { max = -999 }
NR > 1 { if ($2 > max) max = $2 }
END { print "Suhu maksimum: " max }
```

Sintaks

```
vboxuser@desktop:~$ awk -f suhu_maks.awk data.txt
Suhu maksimum: 27.1
```

Sintaks

```
vboxuser@desktop:~$ nano rata_kelembaban.awk
```

Sintaks

```
  GNU nano 7.2                                rata_kelembaban.av
BEGIN { total = 0; count = 0 }
NR > 1 { total += $3; count++ }
END { print "Rata-rata kelembaban: " total / count }
```

Sintaks

```
vboxuser@desktop:~$ awk -f rata_kelembaban.awk data.txt
Rata-rata kelembaban: 63.5
```

Soal 4

Sintaks

```
vboxuser@desktop:~$ cat /etc/passwd
root:x:0:0:root:/root:/bin/bash
daemon:x:1:1:daemon:/usr/sbin:/usr/sbin/nologin
bin:x:2:2:bin:/bin:/usr/sbin/nologin
sys:x:3:3:sys:/dev:/usr/sbin/nologin
sync:x:4:65534:sync:/bin:/bin/sync
games:x:5:60:games:/usr/games:/usr/sbin/nologin
man:x:6:12:man:/var/cache/man:/usr/sbin/nologin
lp:x:7:7:lp:/var/spool/lpd:/usr/sbin/nologin
mail:x:8:8:mail:/var/mail:/usr/sbin/nologin
news:x:9:9:news:/var/spool/news:/usr/sbin/nologin
uucp:x:10:10:uucp:/var/spool/uucp:/usr/sbin/nologin
```

Sintaks

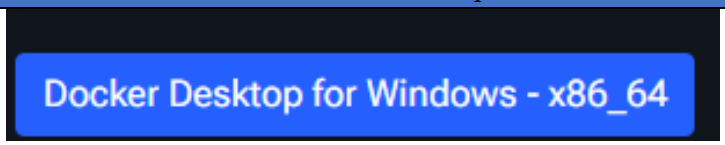
```
vboxuser@desktop:~$ grep "/home/" /etc/passwd
vboxuser:x:1000:1000:vboxuser:/home/vboxuser:/bin/bash
vboxuser@desktop:~$ grep "/home/" /etc/passwd | cut -d: -f1
vboxuser
```

2. **Tugas 2**

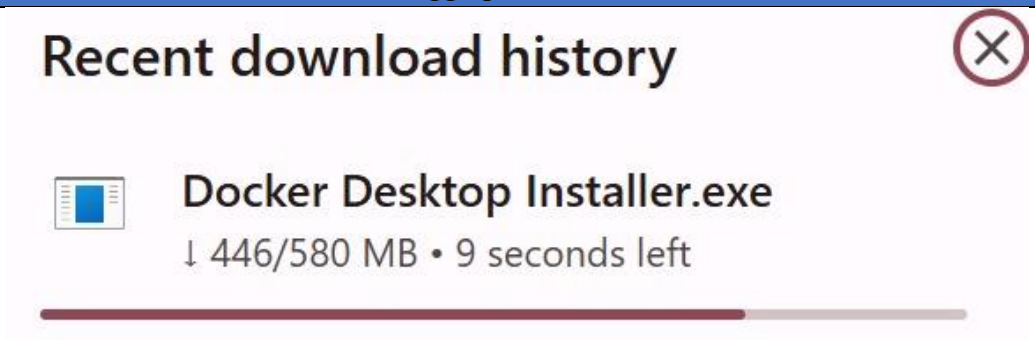
Install Docker

Masuk Halaman Docker

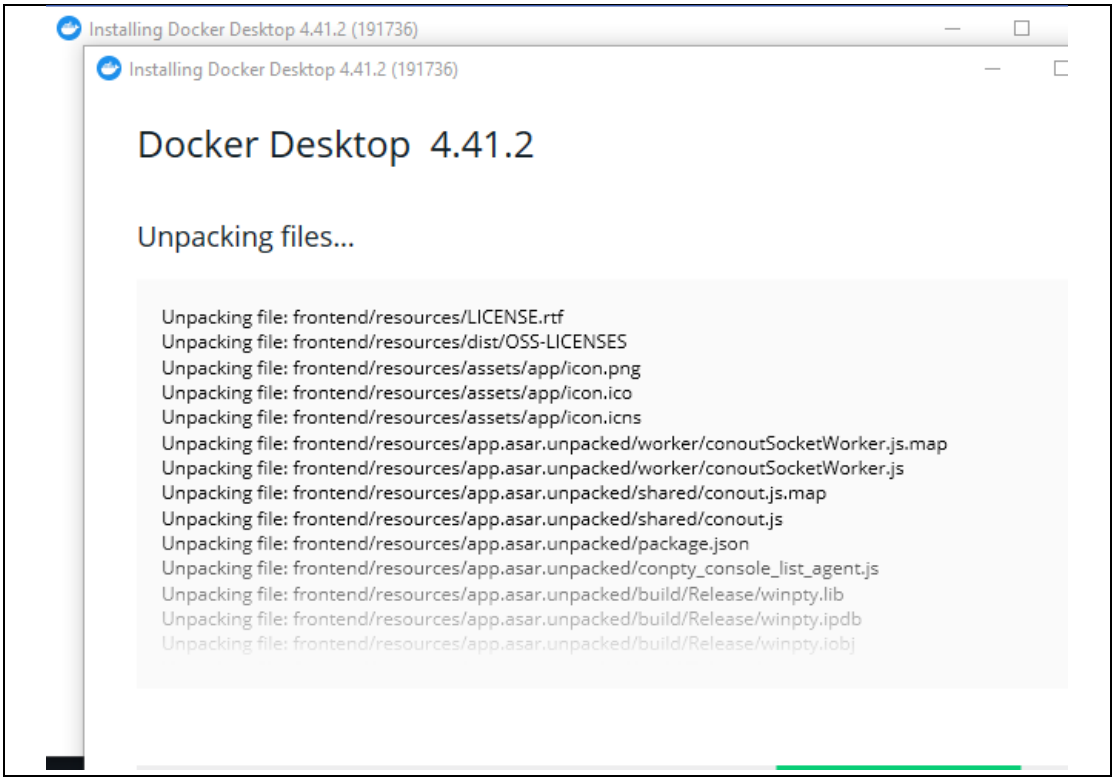
Pilih sesuai desktop

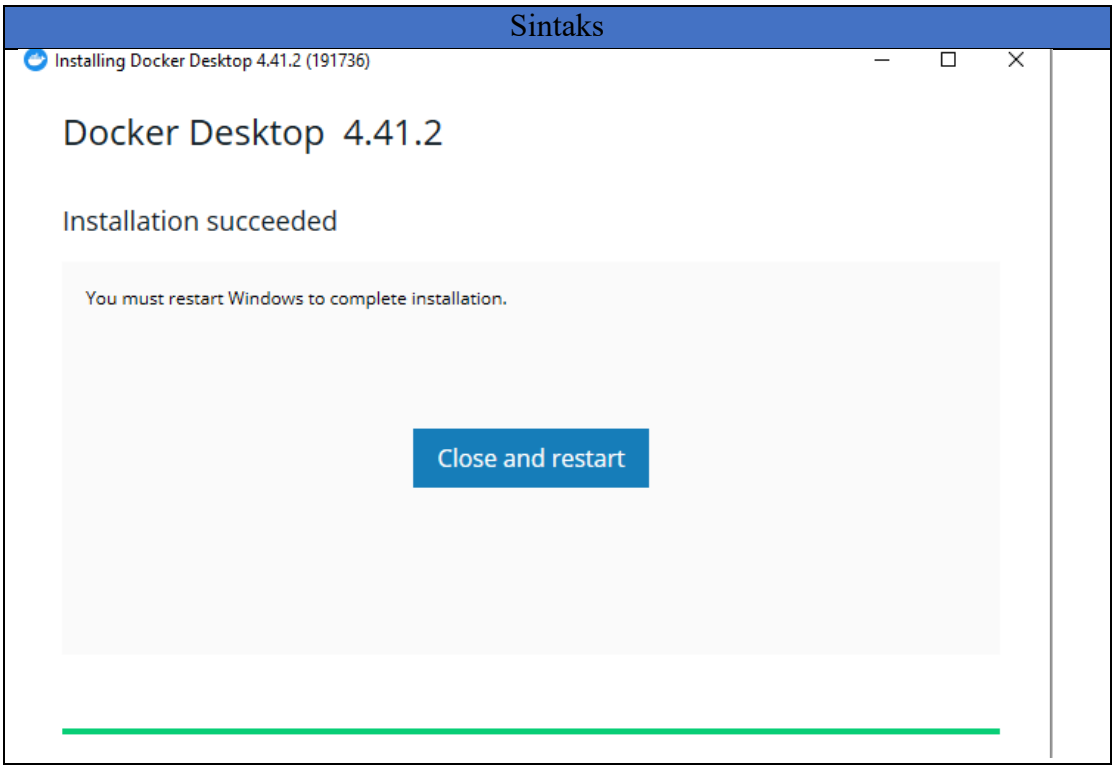


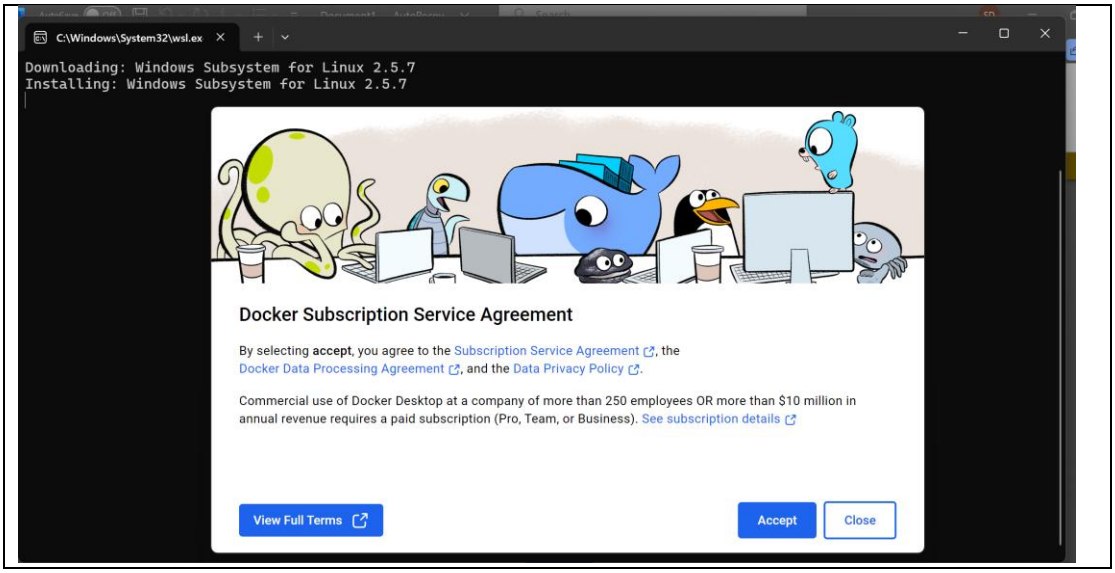
Menunggu proses download



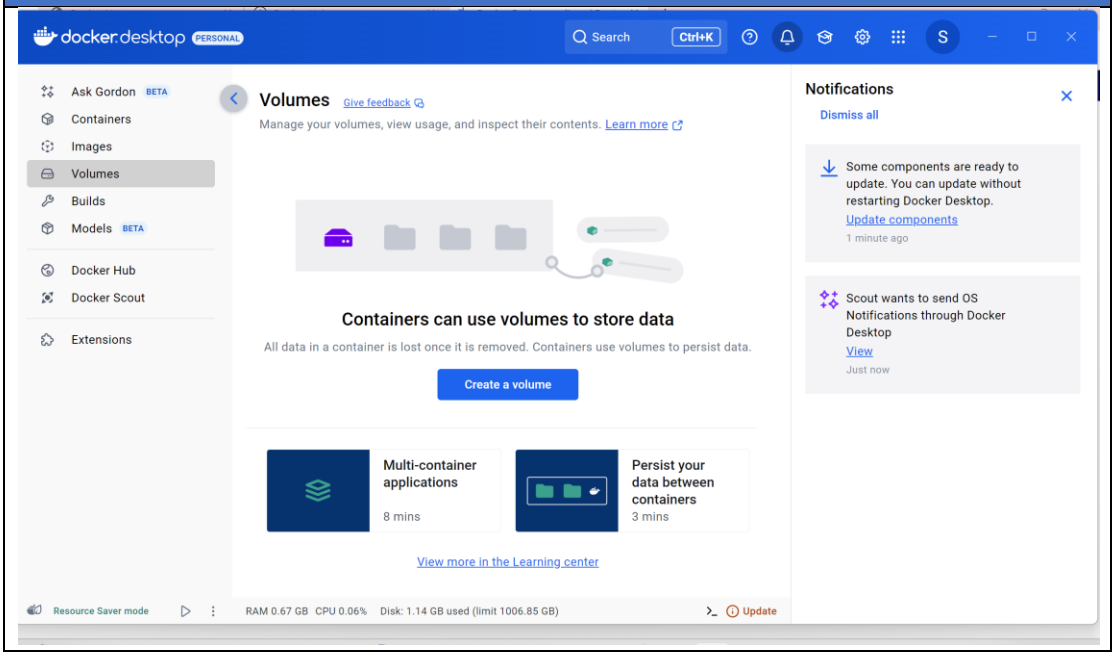
Menunggu proses install


Installing Docker Desktop 4.41.2 (191736)
Installing Docker Desktop 4.41.2 (191736)
Docker Desktop 4.41.2
Unpacking files...
Unpacking file: frontend/resources/LICENSE.rtf
Unpacking file: frontend/resources/dist/OSS-LICENSES
Unpacking file: frontend/resources/assets/app/icon.png
Unpacking file: frontend/resources/assets/app/icon.ico
Unpacking file: frontend/resources/assets/app/icon.icns
Unpacking file: frontend/resources/app.asar.unpacked/worker/conoutSocketWorker.js.map
Unpacking file: frontend/resources/app.asar.unpacked/worker/conoutSocketWorker.js
Unpacking file: frontend/resources/app.asar.unpacked/shared/conout.js.map
Unpacking file: frontend/resources/app.asar.unpacked/shared/conout.js
Unpacking file: frontend/resources/app.asar.unpacked/package.json
Unpacking file: frontend/resources/app.asar.unpacked/conpty_console_list_agent.js
Unpacking file: frontend/resources/app.asar.unpacked/build/Release/winpty.lib
Unpacking file: frontend/resources/app.asar.unpacked/build/Release/winpty.ipdb
Unpacking file: frontend/resources/app.asar.unpacked/build/Release/winpty.iobj


Installing Docker Desktop 4.41.2 (191736)
Docker Desktop 4.41.2
Installation succeeded
You must restart Windows to complete installation.
Close and restart

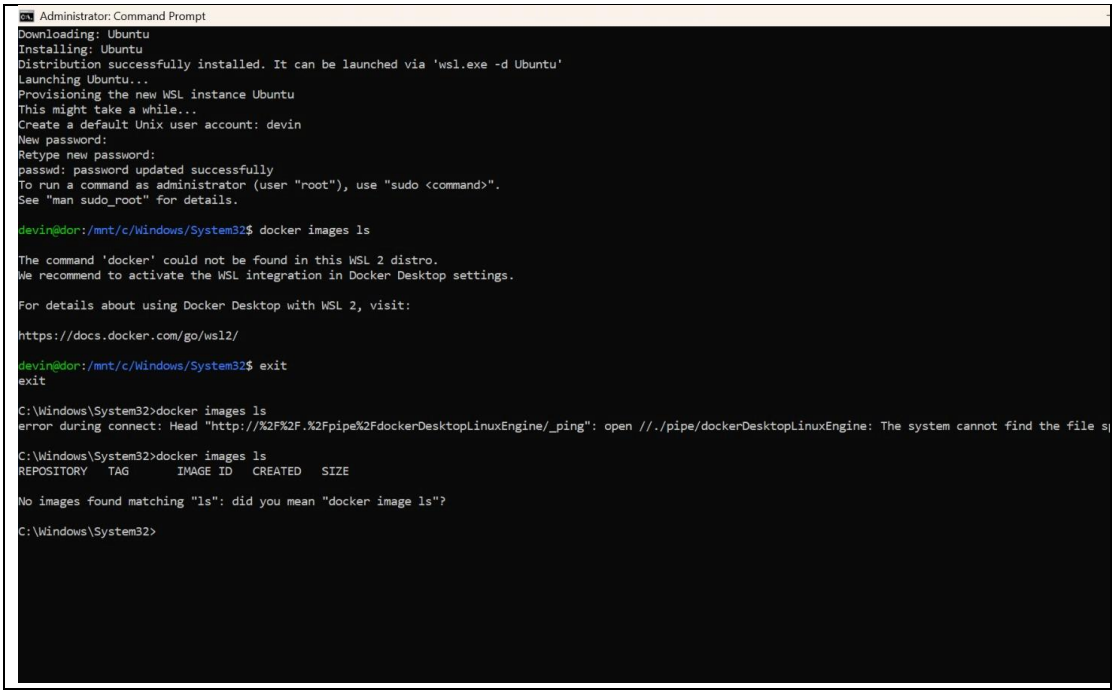


Sintaks



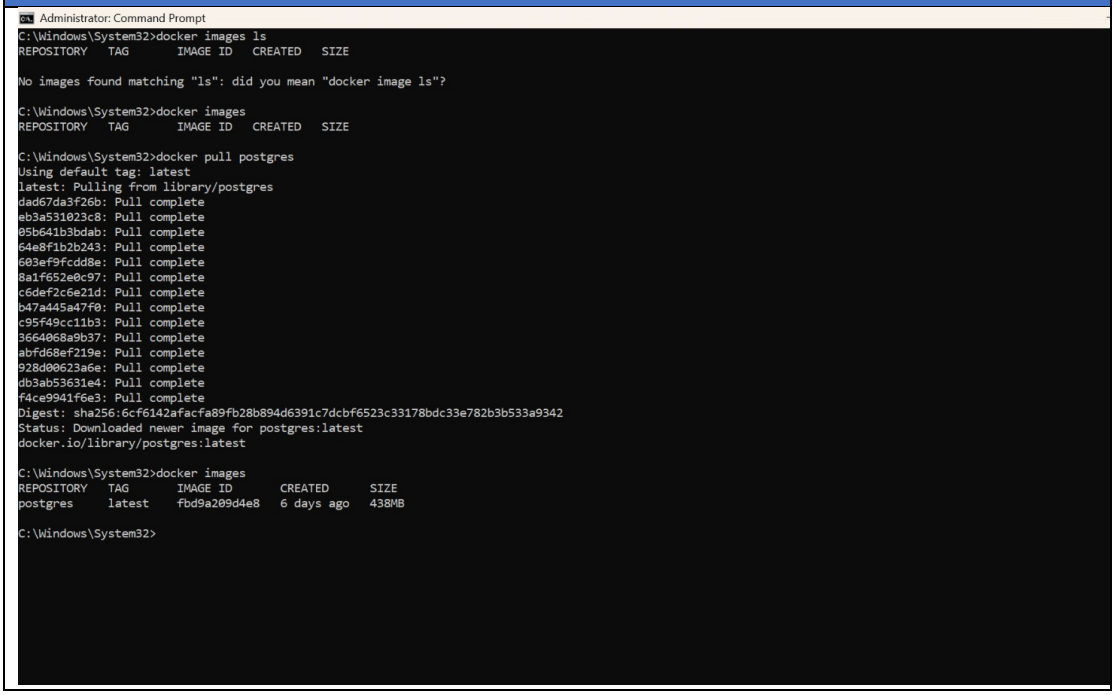
Install WSL

Sintaks

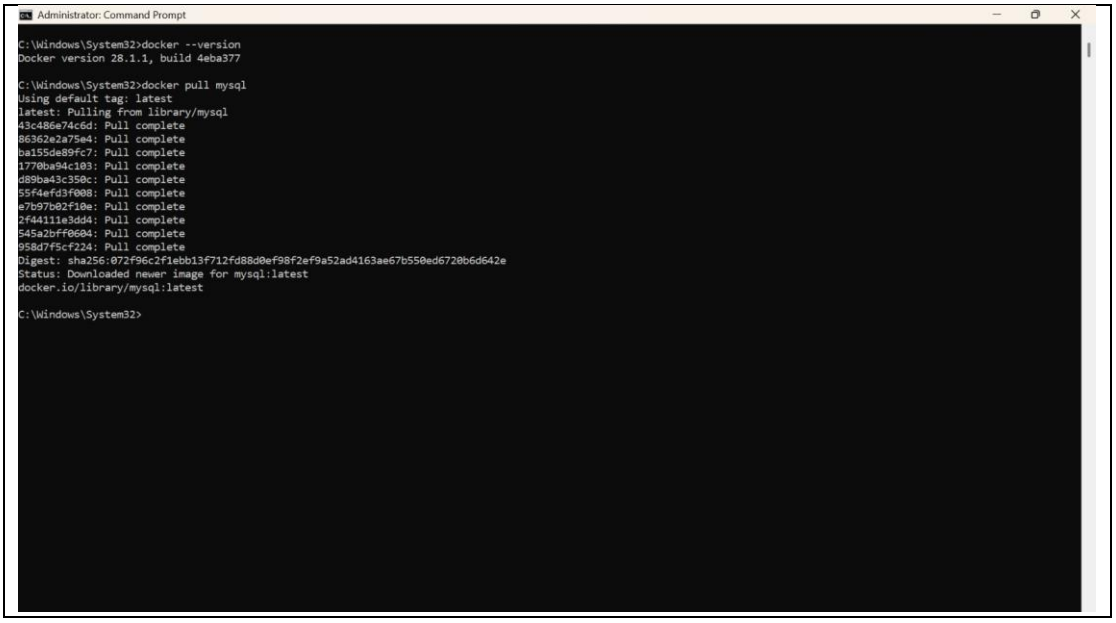


Images

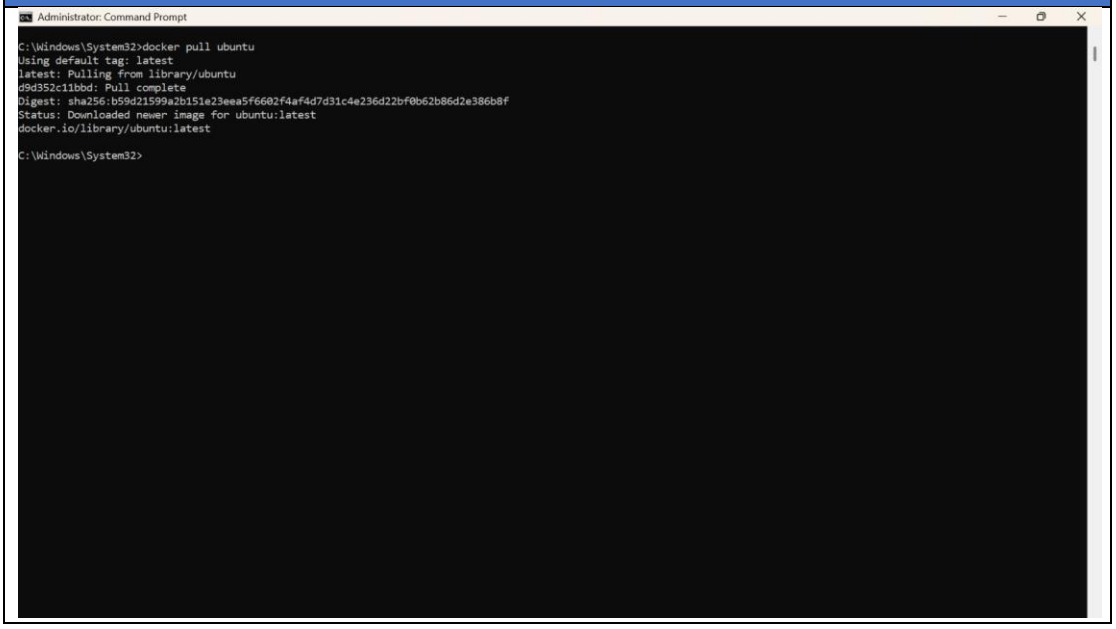
Sintaks



Sintaks



Sintaks



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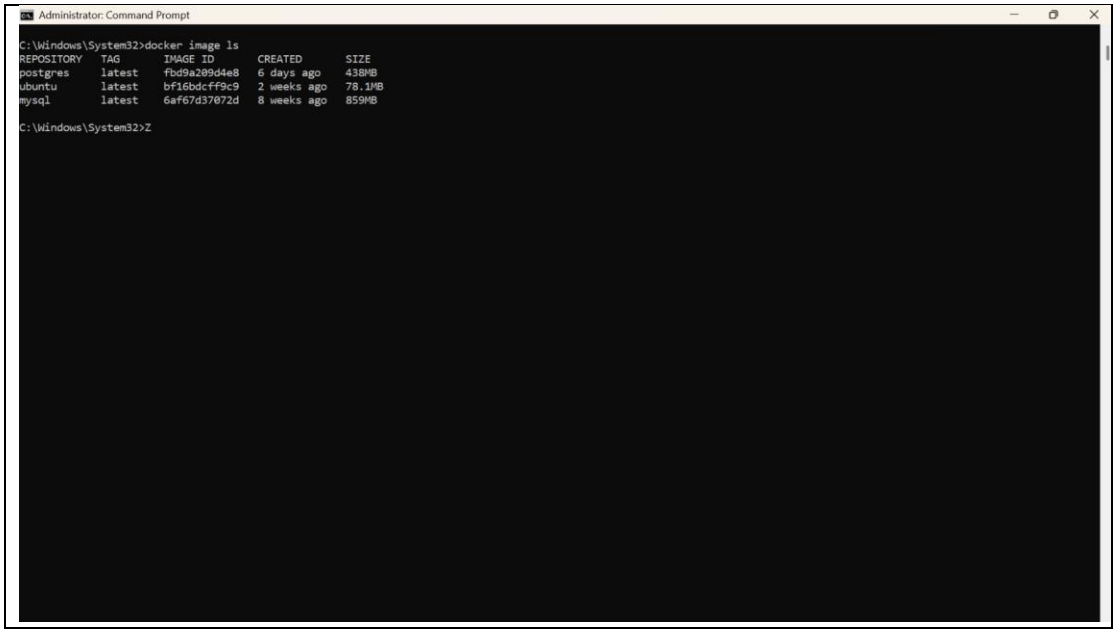
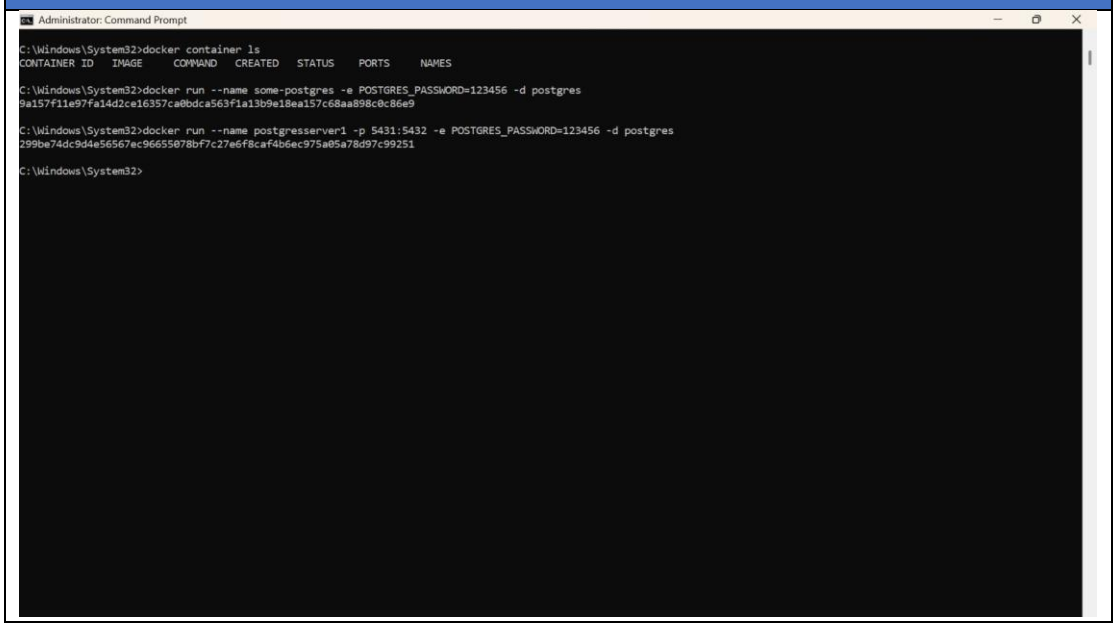


Sintaks

		Name	Tag	Image ID	Created	Size	Actions
☐	○	postgres	latest	6cf6142afacf	6 days ago	620.72 MB	▷ ⋮
☐	○	mysql	latest	072f96c2f1eb	2 months ago	1.17 GB	▷ ⋮
☐	○	ubuntu	latest	b59d21599a2b	15 days ago	117.29 MB	▷ ⋮

Container

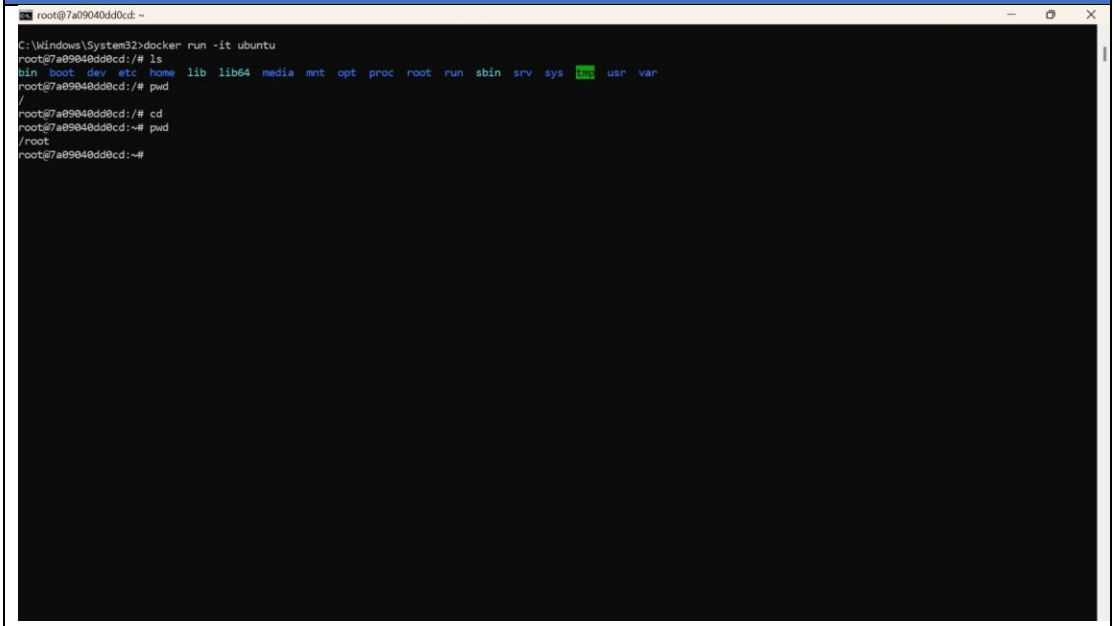
Sintaks



Sintaks

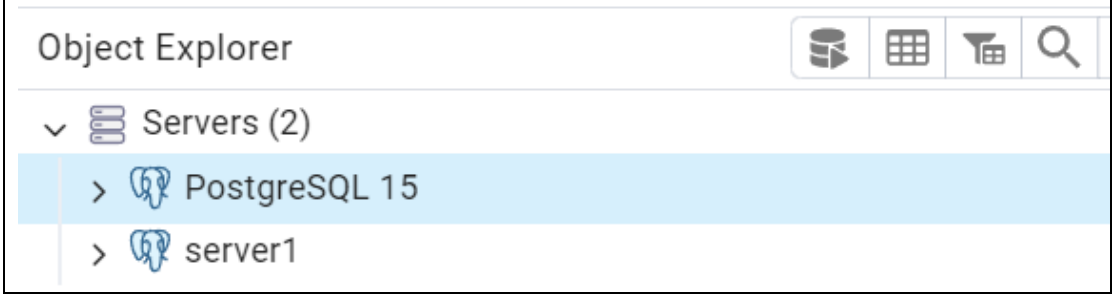
Jalankan Image

Sintaks



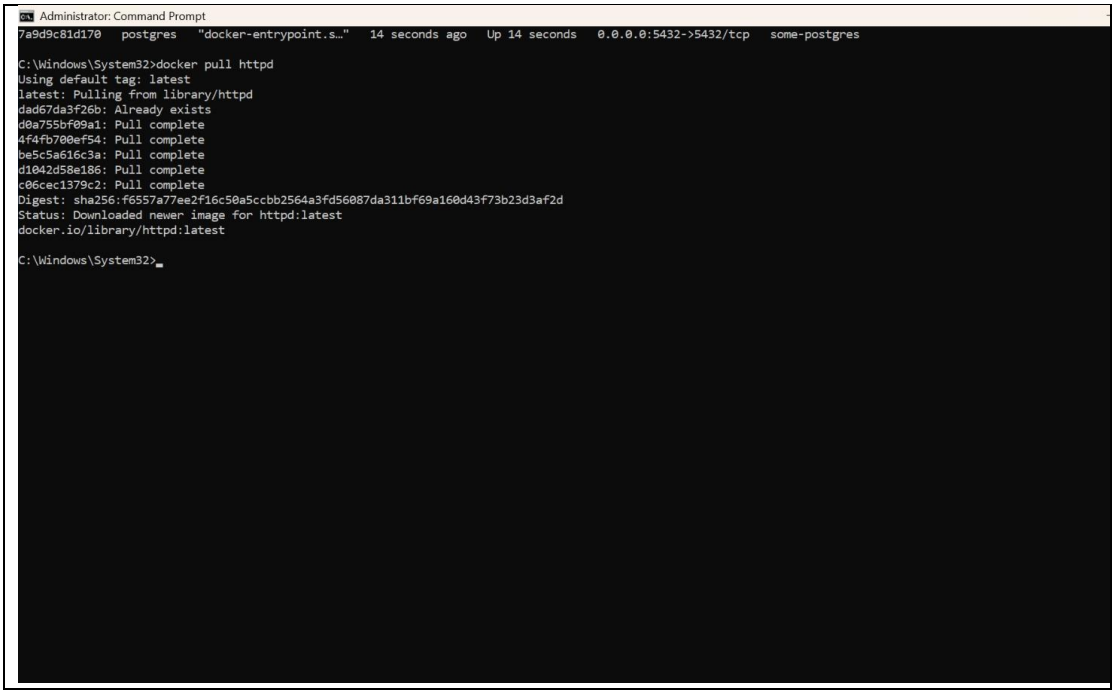
Connect PgAdmin

Sintaks



Install httpd - Run

Sintaks



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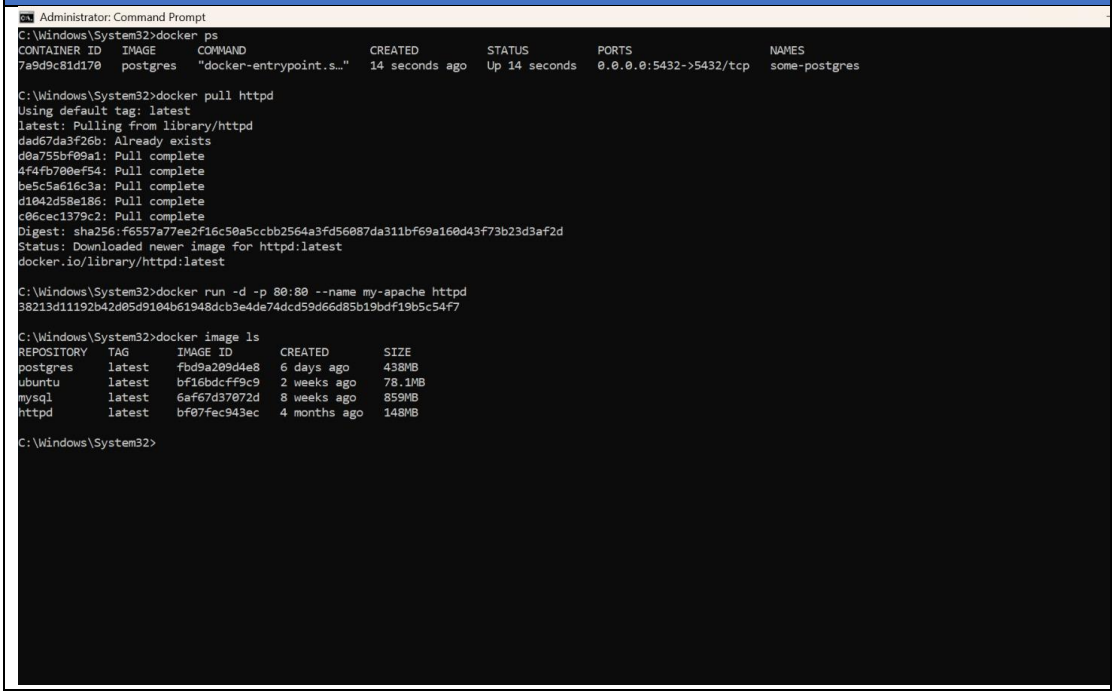
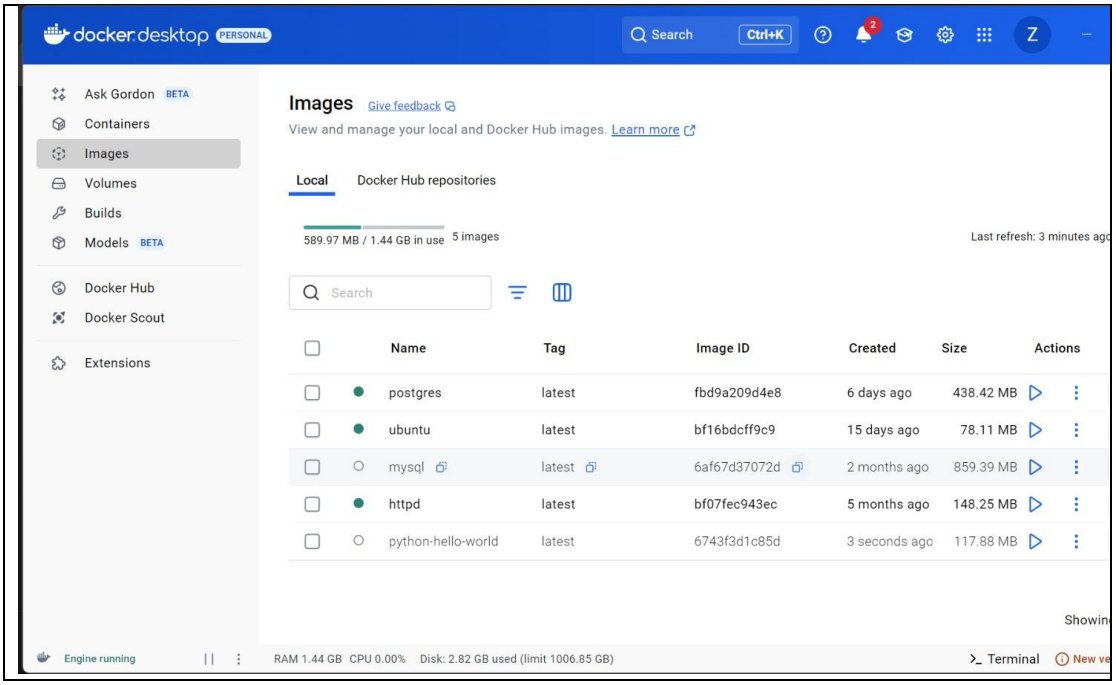


Membangun Apk di Python

Sintaks



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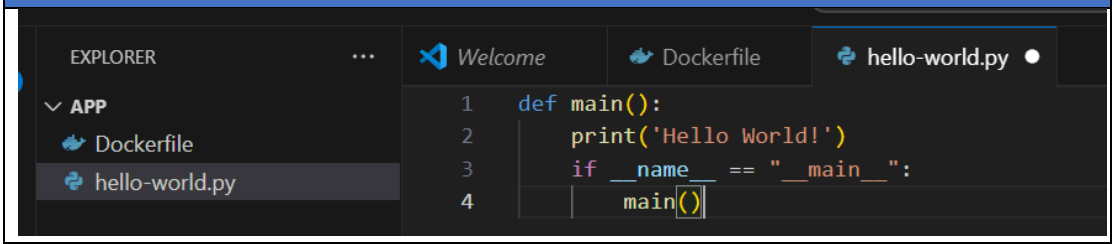

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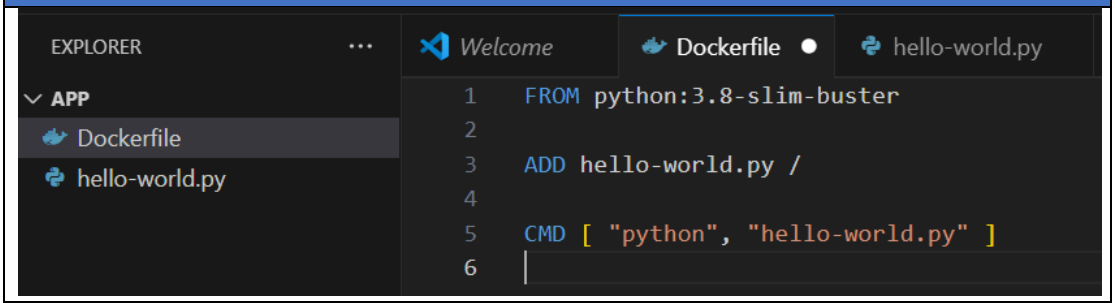

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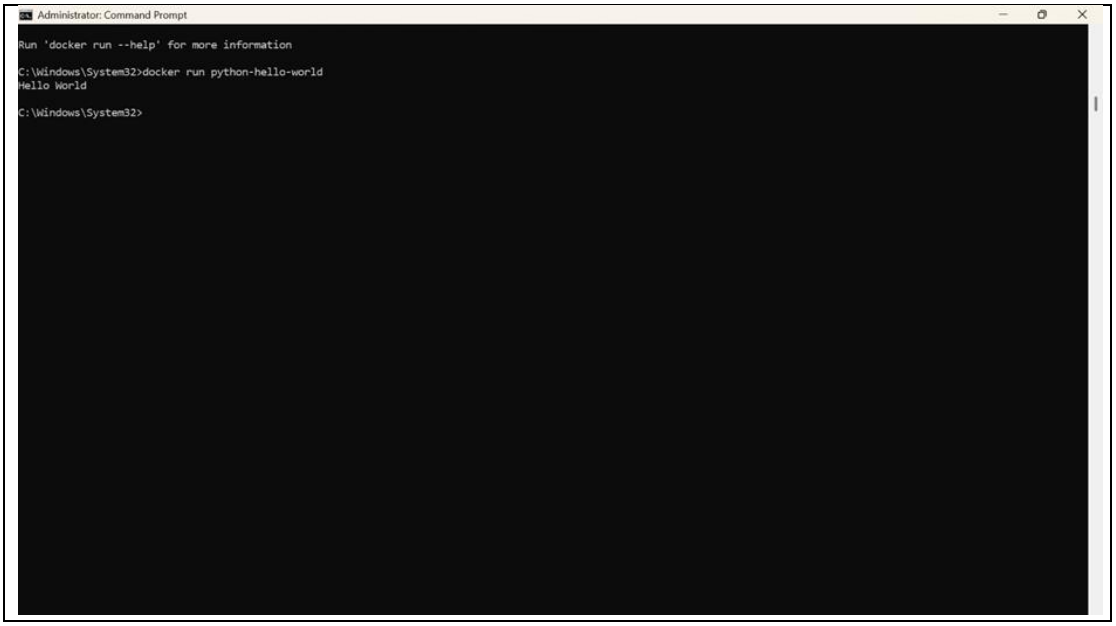
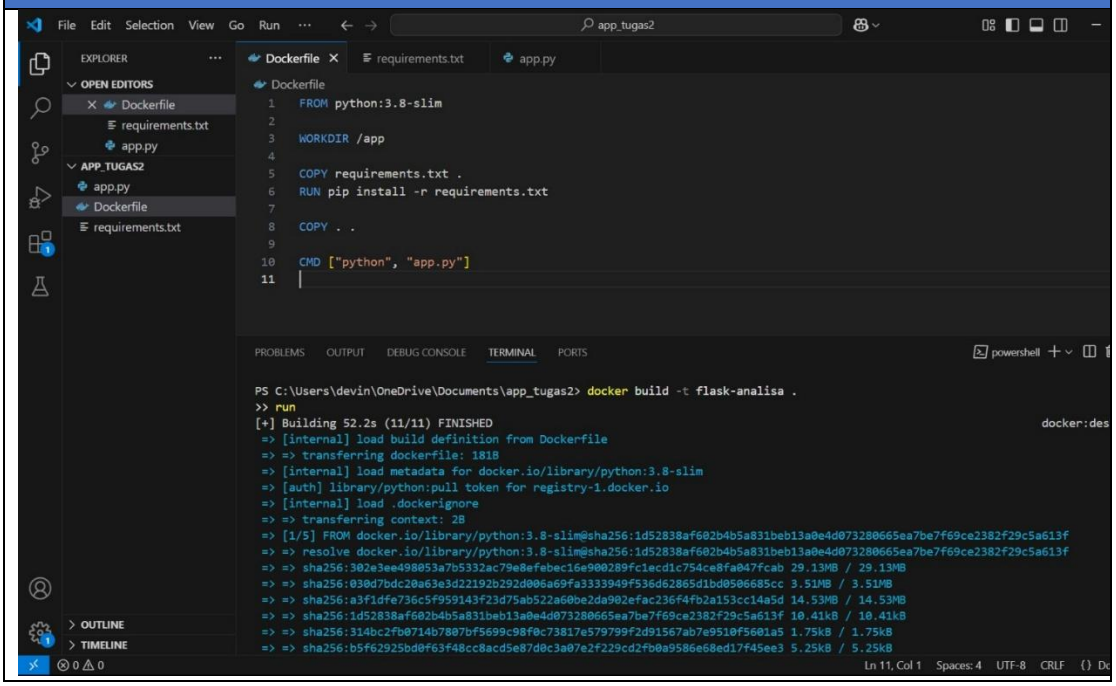
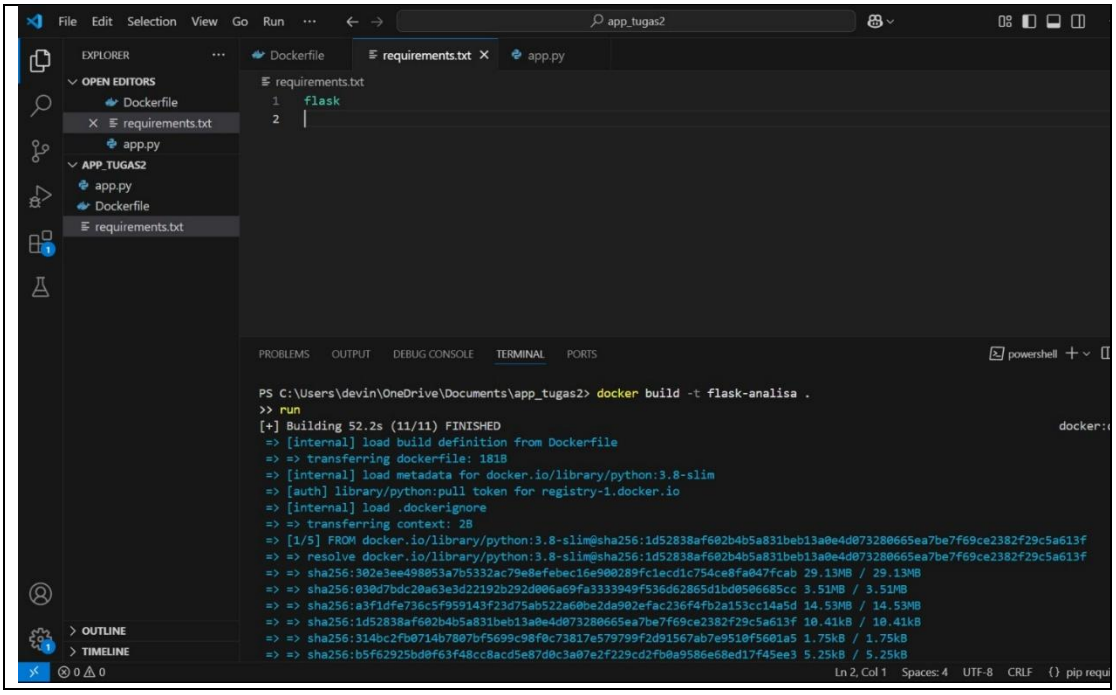


Aplikasi Data

Sintaks



Sintaks



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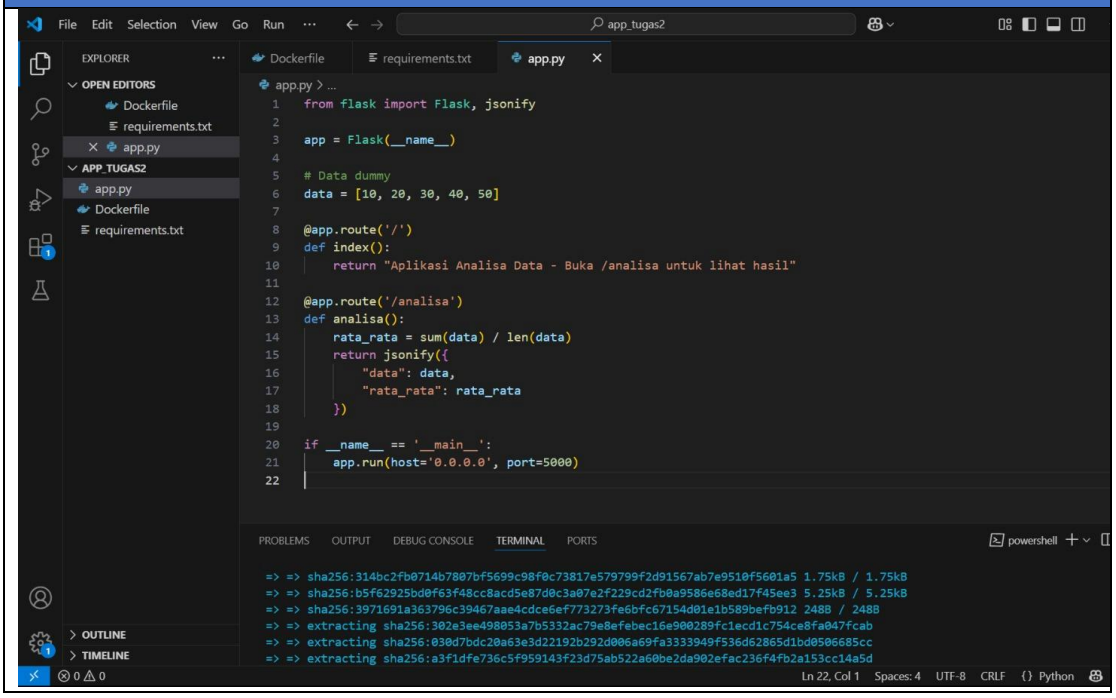
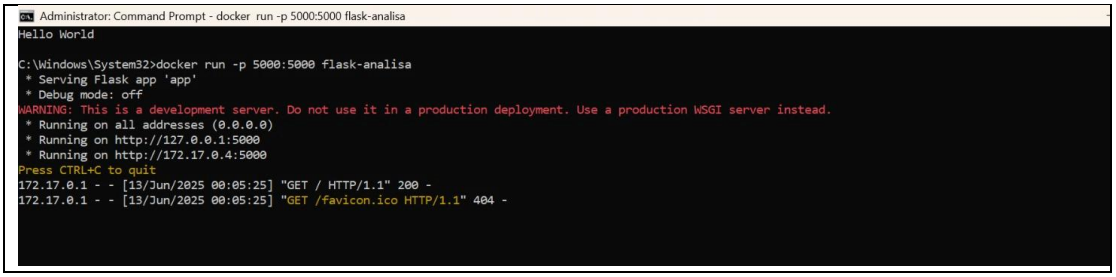
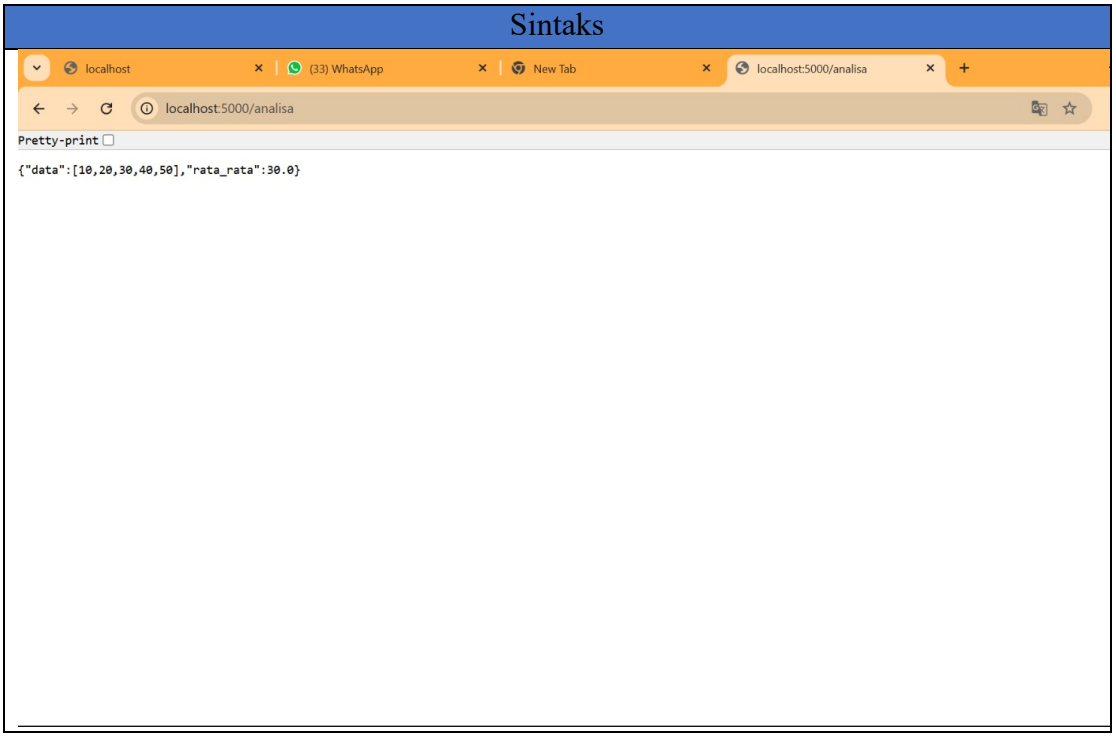


Sintaks





Link Github :
https://github.com/amandadf8/tugasdocker
Link Video :
https://drive.google.com/drive/folders/1HINt9DpnIcrbTUlOuWOpGQXnvLSJfsbD?usp=sharing