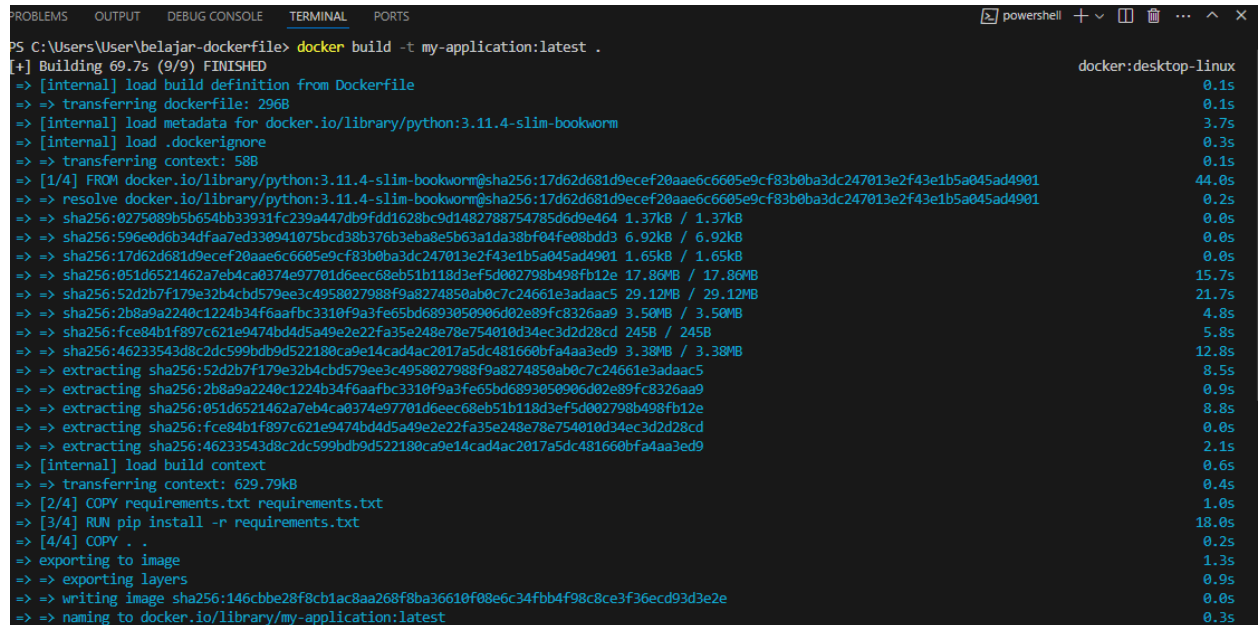


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Kelas & Batch : Data Engineering Batch 4

## 1. Membuat image



The screenshot shows a terminal window with the Docker build command and its output. The command is `docker build -t my-application:latest .`. The output shows the build process, including the resolution of the Dockerfile, the transfer of metadata, and the extraction of layers. The build is successful, and the image is named `my-application:latest`.

```
PS C:\Users\User\belajar-dockerfile> docker build -t my-application:latest .
[+] Building 69.7s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 296B
=> [internal] load metadata for docker.io/library/python:3.11.4-slim-bookworm
=> [internal] load .dockerignore
=> => transferring context: 58B
=> [1/4] FROM docker.io/library/python:3.11.4-slim-bookworm@sha256:17d62d681d9ecef20aae6c6605e9cf83b0ba3dc247013e2f43e1b5a045ad4901
=> => resolve docker.io/library/python:3.11.4-slim-bookworm@sha256:17d62d681d9ecef20aae6c6605e9cf83b0ba3dc247013e2f43e1b5a045ad4901
=> => sha256:0275089b5b654bb33931fc239a447db9fdd1628bc9d1482788754785d6d9e464 1.37kB / 1.37kB
=> => sha256:596e0d6b34d4faa7ed330941075bcd38b376b3eba8e5b63a1da38bf04fe08bdd3 6.92kB / 6.92kB
=> => sha256:17d62d681d9ecef20aae6c6605e9cf83b0ba3dc247013e2f43e1b5a045ad4901 1.65kB / 1.65kB
=> => sha256:051d6521462a7eb4ca0374e97701d6e6c68eb51b118d3ef5d002798b498fb12e 17.86MB / 17.86MB
=> => sha256:52d2b7f179e32b4cbd579ee3c4958027988f9a8274850ab0c7c24661e3adaac5 29.12MB / 29.12MB
=> => sha256:2b8a9a2240c1224b34f6aafbc3310f9a3fe65bd6893050906d02e89fc8326aa9 3.50MB / 3.50MB
=> => sha256:fce84b1f897c621e9474bd4d5a49e2e22fa35e248e78e754010d34ec3d2d28cd 245B / 245B
=> => sha256:46233543d8c2dc599bdb9d522180ca9e14cad4ac2017a5dc481660bfa4aa3ed9 3.38MB / 3.38MB
=> => extracting sha256:52d2b7f179e32b4cbd579ee3c4958027988f9a8274850ab0c7c24661e3adaac5
=> => extracting sha256:2b8a9a2240c1224b34f6aafbc3310f9a3fe65bd6893050906d02e89fc8326aa9
=> => extracting sha256:051d6521462a7eb4ca0374e97701d6e6c68eb51b118d3ef5d002798b498fb12e
=> => extracting sha256:fce84b1f897c621e9474bd4d5a49e2e22fa35e248e78e754010d34ec3d2d28cd
=> => extracting sha256:46233543d8c2dc599bdb9d522180ca9e14cad4ac2017a5dc481660bfa4aa3ed9
=> [internal] load build context
=> => transferring context: 629.79kB
=> [2/4] COPY requirements.txt requirements.txt
=> [3/4] RUN pip install -r requirements.txt
=> [4/4] COPY . .
=> exporting to image
=> => exporting layers
=> => writing image sha256:146cbbe28f8cb1ac8aa268f8ba36610f08e6c34fbb4f98c8ce3f36ecd93d3e2e
=> => naming to docker.io/library/my-application:latest
```

## 2. Untuk menjalankan container dan setting port container ke host

```
C:\Users\User>docker run --name my-application-container -p 3000:8000 -e USER_NAME=budi -d my-application:latest
8fb2616b771cc7f26fc6798288fe0e82fc2d7454ec63333f8e5a4ff30b70937f
```

## 3. docker stop untuk memberhentikan container yang sedang berjalan

```
C:\Users\User>docker stop my-application-container
my-application-container
```

## 4. Docker start untuk menjalankan container yang sudah ada

```
C:\Users\User>docker start my-application-container
my-application-container
```

## 5. Untuk menghapus container yang sudah ada

```
C:\Users\User>docker rm my-application-container
my-application-container
```

6. Untuk melihat image yang ada

```
C:\Users\User>docker images
```

| REPOSITORY               | TAG    | IMAGE ID     | CREATED        | SIZE   |
|--------------------------|--------|--------------|----------------|--------|
| my-application           | latest | 146cbbe28f8c | 25 minutes ago | 179MB  |
| redis                    | latest | 9c893be668ac | 6 weeks ago    | 116MB  |
| docker/welcome-to-docker | latest | c1f619b6477e | 7 months ago   | 18.6MB |

7. Docker ps untuk melihat container yang sedang berjalan, sedangkan docker ps -a untuk melihat semua list container yang ada

```
C:\Users\User>docker ps
```

| CONTAINER ID             | IMAGE                 | COMMAND                  | CREATED        | STATUS       | PORTS                  |
|--------------------------|-----------------------|--------------------------|----------------|--------------|------------------------|
| 8fb2616b771c             | my-application:latest | "/bin/sh -c 'uvicorn..." | 25 minutes ago | Up 2 minutes | 0.0.0.0:3000->8000/tcp |
| my-application-container |                       |                          |                |              |                        |

```
C:\Users\User>docker ps -a
```

| CONTAINER ID   | IMAGE                    | COMMAND                  | CREATED        | STATUS                    | PORTS    |
|----------------|--------------------------|--------------------------|----------------|---------------------------|----------|
| 8fb2616b771c   | my-application:latest    | "/bin/sh -c 'uvicorn..." | 26 minutes ago | Up 3 minutes              | 0.0.0.0: |
| 3000->8000/tcp | my-application-container |                          |                |                           |          |
| 89f986bfd80b   | redis                    | "docker-entrypoint.s..." | 33 minutes ago | Exited (0) 27 minutes ago |          |
| dc3cf5e906bf   | clever_archimedes        |                          |                |                           |          |
|                | docker/welcome-to-docker | "/docker-entrypoint..."  | 25 hours ago   | Exited (0) 35 minutes ago |          |
|                | naughty_ride             |                          |                |                           |          |

8. Untuk membuka shell di dalam sebuah container

```
C:\Users\User>docker exec -it my-application-container bash
root@8fb2616b771c:/#
```

9. Untuk melihat riwayat sebuah container apa saja yang pernah dilakukan

```
C:\Users\User>docker logs my-application-container
```

```
INFO:      Started server process [7]
INFO:      Waiting for application startup.
INFO:      Application startup complete.
INFO:      Uvicorn running on http://0.0.0.0:8000 (Press CTRL+C to quit)
INFO:      Started server process [7]
INFO:      Waiting for application startup.
INFO:      Application startup complete.
INFO:      Uvicorn running on http://0.0.0.0:8000 (Press CTRL+C to quit)
```

10. Untuk melihat apakah local host-nya sudah terhubung atau belum

