
Tugas Hasil Uji Coba

Sistem Paralel dan Terdistribusi A Docker Compose



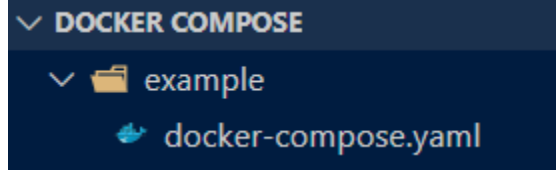
Disusun Oleh :

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10 November 2025

DOCKER COMPOSE

Apa itu Docker Compose?



Docker Compose: Version

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

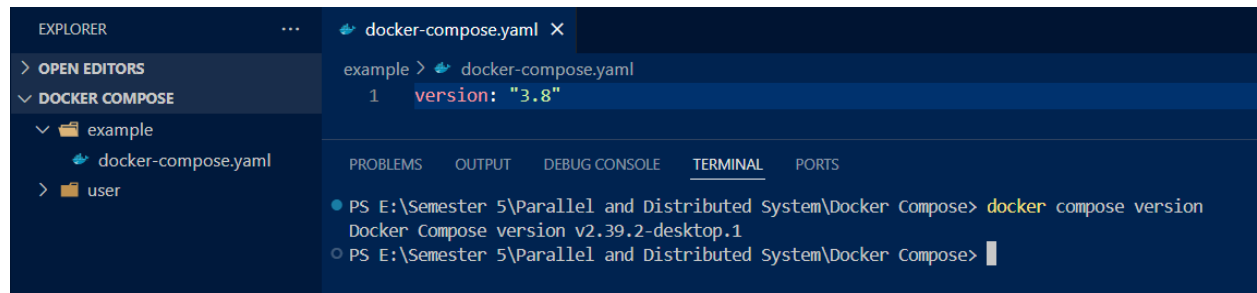
● PS E:\Semester 5\Parallel and Distributed System\Docker Compose> docker compose version
  Docker Compose version v2.39.2-desktop.1
○ PS E:\Semester 5\Parallel and Distributed System\Docker Compose> 
```



CONFIGURATION FILE

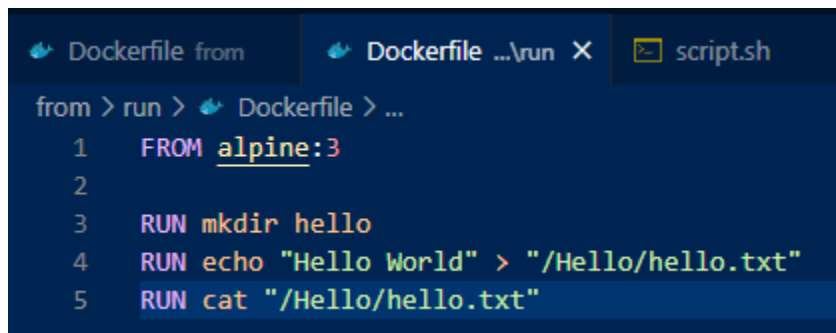
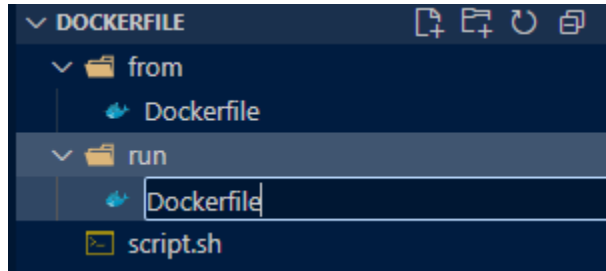
Docker Compose: Versi Konfigurasi

Docker Compose: Docker Compose File

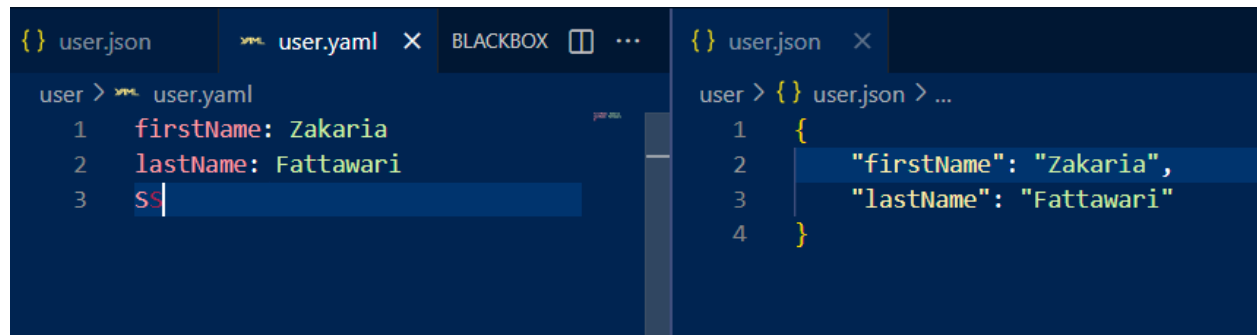


YAML

Pengenalan YAML



Docker Compose: YAML Attribute

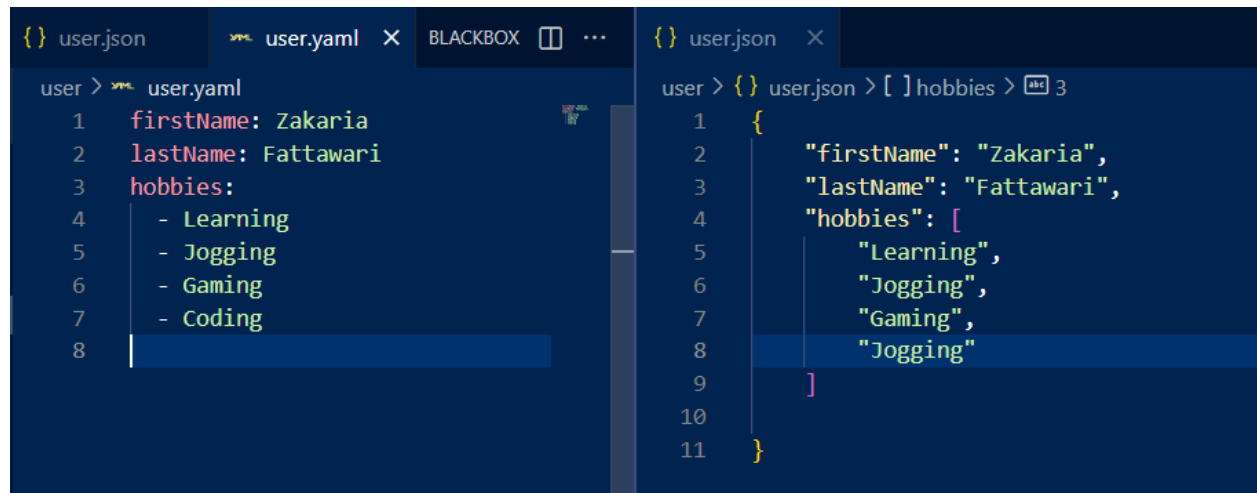


The image shows a side-by-side comparison of two file editors. The left editor, titled 'user.yaml', displays a YAML configuration for a 'user' service. It lists 'firstName' as 'Zakaria' and 'lastName' as 'Fattawari'. The right editor, titled 'user.json', displays the equivalent JSON configuration for the same 'user' service, with 'firstName' and 'lastName' as quoted strings.

```
user > user.yaml
1 firstName: Zakaria
2 lastName: Fattawari
3 ss
```

```
user > {} user.json > ...
1 {
2   "firstName": "Zakaria",
3   "lastName": "Fattawari"
4 }
```

Docker Compose: YAML Array



```
user > user.yaml
1 firstName: Zakaria
2 lastName: Fattawari
3 hobbies:
4   - Learning
5   - Jogging
6   - Gaming
7   - Coding
8

user > {} user.json > [ ] hobbies > 3
1 {
2   "firstName": "Zakaria",
3   "lastName": "Fattawari",
4   "hobbies": [
5     "Learning",
6     "Jogging",
7     "Gaming",
8     "Jogging"
9   ]
10 }
11
```

=

Docker Compose: YAML Nested Object

```
user > user.yaml
1 firstName: Zakaria
2 lastName: Fattawari
3 hobbies:
4   - Learning
5   - Jogging
6   - Gaming
7   - Coding
8 address:
9   street: Jalan Soekarno Hatta KM 24
10  city: North Balikpapan
11  province: East Kalimantan
12  country: Indonesia
13  postalCode: "76127"
14  phoneNumber: "085651149430"

user > {} user.json > {} address > {} phoneNumber
1 {
2   "firstName": "Zakaria",
3   "lastName": "Fattawari",
4   "hobbies": [
5     "Learning",
6     "Jogging",
7     "Gaming",
8     "Jogging"
9   ],
10  "address": {
11    "street": "Jalan Soekarno Hatta KM 24",
12    "city": "North Balikpapan",
13    "province": "East Kalimantan",
14    "country": "Indonesia",
15    "postalCode": "76127",
16    "phoneNumber": "085651149430"
17  }
18 }
```

Docker Compose: YAML Array Nested Object

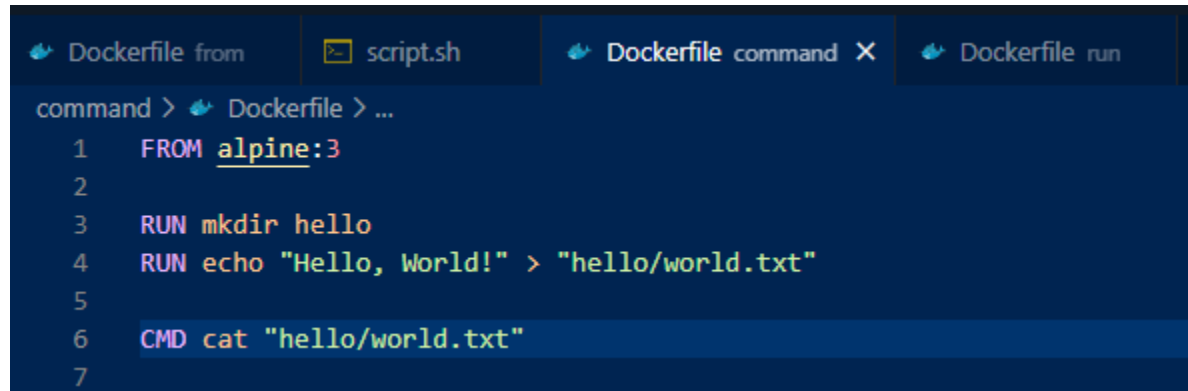
```
docker-compose.yml  {} user.json  user.yaml  {} user.json  BLACKBOX

user > user.yaml
1 firstName: Zakaria
2 lastName: Fattawari
3 hobbies:
4   - Learning
5   - Jogging
6   - Gaming
7   - Coding
8 address:
9   street: Jalan Soekarno Hatta KM 24
10  city: North Balikpapan
11  province: East Kalimantan
12  country: Indonesia
13  postalCode: "76127"
14  phoneNumber: "085651149430"
15  emails:
16   - zakriafattawari@gmail.com
17   - alathereongemink@gmail.com
18   - 11231092@student.itk.ac.id
19 wallet:
20   - type: cash
21     amount: 540000
22   - type: credit
23     amount: 427000

user > {} user.json > ...
1 {}
2 {"firstName": "Zakaria",
3  "lastName": "Fattawari",
4  "hobbies": [
5    "Learning",
6    "Jogging",
7    "Gaming",
8    "Jogging"
9  ],
10 "address": {
11   "street": "Jalan Soekarno Hatta KM 24",
12   "city": "North Balikpapan",
13   "province": "East Kalimantan",
14   "country": "Indonesia",
15   "postalCode": "76127",
16   "phoneNumber": "085651149430",
17   "emails": [
18     "zakriafattawari@gmail.com",
19     "alathereongemink@gmail.com",
20     "11231092@student.itk.ac.id"
21   ]
22 },
23 "wallet": [
24   {
25     "type": "cash",
26     "amount": 540000
27   },
28   {
29     "type": "credit",
30     "amount": 427000
31   }
32 ]
33 }
```

MEMBUAT CONTAINER



Membuat Konfigurasi Kontainer




The image shows a Dockerfile editor interface with a dark theme. At the top, there are four tabs: 'Dockerfile from', 'script.sh', 'Dockerfile command X', and 'Dockerfile run'. The 'Dockerfile command' tab is active. Below the tabs, the text 'command > Dockerfile > ...' is visible. The main area contains a Dockerfile with the following content:

```
1 FROM alpine:3
2
3 RUN mkdir hello
4 RUN echo "Hello, World!" > "hello/world.txt"
5
6 CMD cat "hello/world.txt"
7
```

Docker Compose: Membuat Container

 docker-compose.yml 

example >  docker-compose.yml

1 **version: "3.8"**

2

▶ Run All Services

3 **services:**

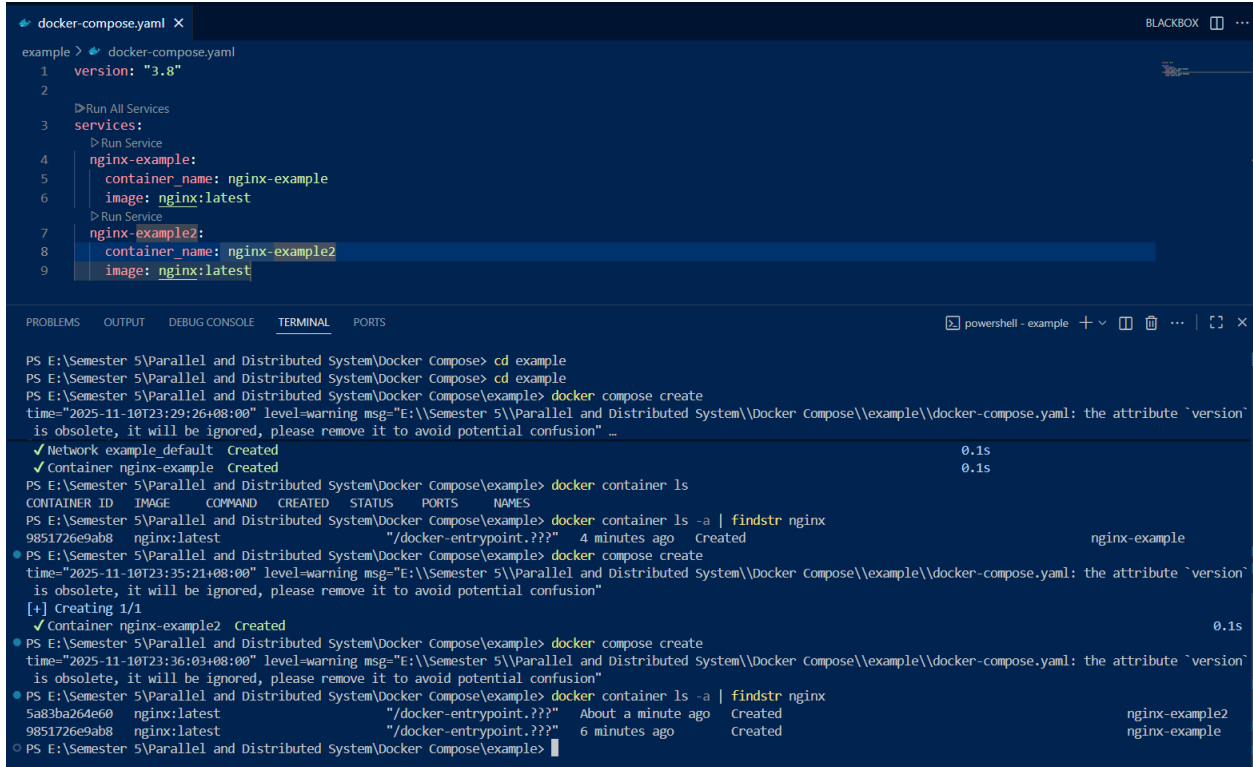
▶ Run Service

4 **nginx-example:**

5 **container_name: nginx-example**

6 **image: nginx:latest**

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose> cd example
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose create
time="2025-11-10T23:29:26+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yml: the attribute `version`
is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 2/2
✓ Network example_default Created 0.1s
✓ Container nginx-example Created 0.1s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker container ls
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS   NAMES
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker container ls -a | findstr nginx
9851726e9ab8   nginx:latest   "/docker-entrypoint.???"   4 minutes ago   Created   nginx-example
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example>
```



Docker Container: COMMAND

```
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container create --name command zakariafattawari/command
de65b9588f88ba04f95230c1c837c806ccfd83ae8fe4d476dc414ac7a59e0e82
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container start command
command
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container ls
CONTAINER ID   IMAGE                                COMMAND                  CREATED        STATUS        PORTS   NAMES
de65b9588f88   zakariafattawari/command            "/bin/sh -c 'cat \"he???"'  About a minute ago    Exited (0)    About a minute ago    command
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container logs command
Hello, World!
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container start command
command
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container start command
command
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container start command
command
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker container logs command
Hello, World!
Hello, World!
Hello, World!
Hello, World!
PS E:\Semester 5\Parallel and Distributed System\Dockerfile>
```

MENJALANKAN CONTAINER

Pengenalan Menjalankan Container

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose> cd example
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose start
time="2025-11-10T23:37:43+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 2/2
  ✓ Container nginx-example2 Started                                0.4s
  ✓ Container nginx-example Started                                0.4s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker container ls
CONTAINER ID   IMAGE      COMMAND                  CREATED        STATUS        PORTS          NAMES
5a83ba264e60   nginx:latest  "/docker-entrypoint..."  2 minutes ago  Up 5 seconds  80/tcp         nginx-example2
9851726e9ab8   nginx:latest  "/docker-entrypoint..."  8 minutes ago  Up 5 seconds  80/tcp         nginx-example
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example>
```

```
Dockerfile from  script.sh  Dockerfile command  Dockerfile label X  Dockerfile run
label > Dockerfile > ...
1  FROM alpine:3
2
3  LABEL author="Zakaria Fattawari"
4  LABEL company="A206" website="https://www.instagram.com/alathereonn_"
5
6  RUN mkdir hello
7  RUN echo "Hello, World!" > "hello/world.txt"
8  CMD cat "hello/world.txt"
9
10
```

Docker Compose: Melihat Container

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose ps
time="2025-11-10T23:40:13+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME                IMAGE             COMMAND           SERVICE           CREATED          STATUS           PORTS
nginx-example       nginx:latest      "/docker-entrypoint..." nginx-example      10 minutes ago  Up 2 minutes     80/tcp
nginx-example2      nginx:latest      "/docker-entrypoint..." nginx-example2     4 minutes ago   Up 2 minutes     80/tcp
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example>
```



Docker Compose: Menghentikan Container

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose stop
time="2025-11-10T23:41:41+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Stopping 2/2
 ✓ Container nginx-example2 Stopped                                0.3s
 ✓ Container nginx-example Stopped                                0.3s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose ps
time="2025-11-10T23:41:46+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME          IMAGE          COMMAND          SERVICE    CREATED   STATUS    PORTS
```

Docker Compose: Menghapus Container

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose start
time="2025-11-10T23:43:36+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 2/2
  ✓ Container nginx-example Started                                0.2s
  ✓ Container nginx-example2 Started                               0.2s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose ps
time="2025-11-10T23:43:54+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME                IMAGE             COMMAND                  SERVICE     CREATED         STATUS          PORTS
nginx-example       nginx:latest      "/docker-entrypoint...." nginx-example 14 minutes ago  Up 17 seconds  80/tcp
nginx-example2     nginx:latest      "/docker-entrypoint...." nginx-example2 8 minutes ago   Up 17 seconds  80/tcp
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose down
time="2025-11-10T23:44:00+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 3/3
  ✓ Container nginx-example2 Removed                                0.4s
  ✓ Container nginx-example Removed                                0.3s
  ✓ Network example_default Removed                                0.3s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> 
```

PROJECT NAME

Pengenalan Project Name

```
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example> docker compose create
time="2025-11-10T23:46:51+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\ Docker Compose\example\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 3/3
  ✓ Network example_default    Created                                0.0s
  ✓ Container nginx-example2   Created                                0.1s
  ✓ Container nginx-example    Created                                0.1s
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example> docker compose ps
time="2025-11-10T23:46:56+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\ Docker Compose\example\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME          IMAGE          COMMAND                  SERVICE    CREATED      STATUS      PORTS
nginx-exampl nginx:latest   "/docker-entrypoint...." nginx-exam 19 seconds ago Up 6 seconds 80/tcp
nginx-exampl2 nginx:latest   "/docker-entrypoint...." nginx-exam 19 seconds ago Up 6 seconds 80/tcp
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example> docker compose start
time="2025-11-10T23:47:04+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\ Docker Compose\example\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 2/2
  ✓ Container nginx-example2   Started                                0.2s
  ✓ Container nginx-exampl     Started                                0.2s
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example> docker compose ps
time="2025-11-10T23:47:10+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\ Docker Compose\example\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME          IMAGE          COMMAND                  SERVICE    CREATED      STATUS      PORTS
nginx-exampl nginx:latest   "/docker-entrypoint...." nginx-exam 19 seconds ago Up 6 seconds 80/tcp
nginx-exampl2 nginx:latest   "/docker-entrypoint...." nginx-exam 19 seconds ago Up 6 seconds 80/tcp
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example>
```

```
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example> docker compose ps
time="2025-11-10T23:47:10+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\ Docker Compose\example\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
NAME          IMAGE          COMMAND                  SERVICE    CREATED      STATUS      PORTS
nginx-exampl nginx:latest   "/docker-entrypoint...." nginx-exam 19 seconds ago Up 6 seconds 80/tcp
nginx-exampl2 nginx:latest   "/docker-entrypoint...." nginx-exam 19 seconds ago Up 6 seconds 80/tcp
PS E:\Semester 5\Parallel and Distributed System\ Docker Compose\example>
```

SERVICES

Pengenalan SERVICES

```
docker-compose.yml X
example > docker-compose.yml
1  version: "3.9"
2
   ▶ Run All Services
3  services:
   ▶ Run Service
4  | nginx-example:
5  |   image: nginx:latest
6  |   container_name: nginx-example
   ▶ Run Service
7  | mongodb-example:
8  |   image: mongo:latest
9  |   container_name: mongodb-example
10
```

Docker Compose: SERVICES

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose create
time="2025-11-10T23:54:16+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 3/3
 ✓ Network example_default    Created                                0.0s
 ✓ Container mongodb-example  Created                                0.1s
 ✓ Container nginx-example    Created                                0.1s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose start
time="2025-11-10T23:54:29+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\example\docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 2/2
 ✓ Container mongodb-example  Started                                0.2s
 ✓ Container nginx-example    Started                                0.2s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example>
```

KOMENTAR

Pengenalan Komentor

```
🐳 docker-compose.yml ✕
example > 🐳 docker-compose.yml
1  version: "3.9"
2
   ▶ Run All Services
3  services:
4    # contoh nginx bang
   ▶ Run Service
5    nginx-example:
6      image: nginx:latest
7      container_name: nginx-example
8
9    # kalau yang ini contoh mongodb
   ▶ Run Service
10   mongodb-example:
11     image: mongo:latest
12     container_name: mongodb-example
13
```

PORT

Pengenalan PORT

```
docker-compose.yml X
example > docker-compose.yml
1  version: "3.9"
2
   ▶ Run All Services
3  services:
4    # contoh port dengan long syntax
   ▶ Run Service
5    nginx-port1:
6      image: nginx:latest
7      container_name: nginx-port1
8      ports:
9        - protocol: tcp
10         published: 8080
11         target: 80
12    # contoh port dengan short syntax
   ▶ Run Service
13    nginx-port2:
14      image: nginx:latest
15      container_name: nginx-port2
16      ports:
17        - 8081:80
18
```

Docker Compose: Short Syntax

```
12  # contoh port dengan short syntax
    ▸ Run Service
13  nginx-port2:
14      image: nginx:latest
15      container_name: nginx-port2
16      ports:
17          - 8081:80
18
```

Docker Compose: Long Syntax

```
4 | # contoh port dengan long syntax
   | ▷ Run Service
5 | nginx-port1:
6 |   image: nginx:latest
7 |   container_name: nginx-port1
8 |   ports:
9 |     - protocol: tcp
10 |       published: 8080
11 |       target: 80
```

Docker Compose: PORT (Menjalankan Container)

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS
● PS E:\Semester 5\Parallel and Distributed System\Docker Compose> cd example
● PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose create
time="2025-11-11T00:08:48+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\example\\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 3/3
  ✓ Network example_default Created 0.0s
  ✓ Container nginx-port1 Created 0.1s
  ✓ Container nginx-port2 Created 0.1s
● PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose start
time="2025-11-11T00:08:58+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\example\\docker-compose.yaml: the at
tribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 2/2
  ✓ Container nginx-port1 Started 0.4s
  ✓ Container nginx-port2 Started 0.4s
○ PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> |
```

ENVIRONMENT VARIABLE

Pengenalan ENVIRONMENT VARIABLE

```
docker-compose.yaml X
example > docker-compose.yaml
1  version: "3.9"
2
   Run All Services
3  services:
4    # kalau yang ini contoh mongodb
   Run Service
5    mongodb-example:
6      image: mongo:latest
7      container_name: mongodb-example
8      ports:
9        - 27017:27017
10     environment:
11       MONGO_INITDB_ROOT_USERNAME: alathereon
12       MONGO_INITDB_ROOT_PASSWORD: alathereonn
13       MONGO_INITDB_DATABASE: admin
14
15
```

Docker Compose: ENVIRONMENT VARIABLE

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose create
time="2025-11-11T00:15:23+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\example\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 2/2
  ✓ Network example_default    Created                                0.0s
  ✓ Container mongodb-example  Created                                0.1s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose start
time="2025-11-11T00:15:29+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\example\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 1/1
  ✓ Container mongodb-example  Started                                0.2s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> |
```

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker compose exec mongodb-example env
time="2025-11-11T00:16:00+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\example\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
PATH=/usr/local/sbin:/usr/local/bin:/usr/sbin:/usr/bin:/sbin:/bin
HOSTNAME=1ff961a73d03
TERM=xterm
MONGO_INITDB_ROOT_PASSWORD=alathereonn
MONGO_INITDB_DATABASE=admin
MONGO_INITDB_ROOT_USERNAME=alathereon
GOSU_VERSION=1.18
JSYAML_VERSION=3.13.1
JSYAML_CHECKSUM=662e32319bdd378e91f67578e56a34954b0a2e33aca11d70ab9f4826af24b941
MONGO_PACKAGE=mongodb-org
MONGO_REPO=repo.mongodb.org
MONGO_MAJOR=8.0
MONGO_VERSION=8.0.14
HOME=/data/db
GLIBC_TUNABLES=glibc.pthread.rseq=0
|
```

BIND MOUNT

Pengenalan BIND MOUNT

```
docker-compose.yml X
example > docker-compose.yml
1  version: "3.9"
2
3  services:
4    # kalau yang ini contoh mongodb
5    mongodb1:
6      image: mongo:latest
7      container_name: mongodb1
8      ports:
9        - 27017:27017
10     environment:
11       MONGO_INITDB_ROOT_USERNAME: alathereon
12       MONGO_INITDB_ROOT_PASSWORD: alathereonn
13       MONGO_INITDB_DATABASE: admin
14     volumes:
15       - ./data-mongo1:/data/db
16
17     # mongodb2
18     mongodb2:
19       image: mongo:latest
20       container_name: mongodb2
21       ports:
22         - 27018:27017
23       environment:
24         MONGO_INITDB_ROOT_USERNAME: alathereon
25         MONGO_INITDB_ROOT_PASSWORD: alathereonn
26         MONGO_INITDB_DATABASE: admin
27       volumes:
28         - type: bind
29           source: ./data-mongodb2
30           target: /data/db
31           read_only: false
32
```

VOLUME

Pengenalan VOLUME

```
🐳 docker-compose.yaml X
example > 🐳 docker-compose.yaml
1  version: "3.9"
2
3  volumes:
4    mongo-data1:
5      name: mongo-data1
6    mongo-data2:
7      name: mongo-data2
8
```

Docker Compose: SHORT SYNTAX VOLUME

```
4 | # kalau yang ini contoh mongodb
   | ▷ Run Service
5 | mongodb1:
6 |   image: mongo:latest
7 |   container_name: mongodb1
8 |   ports:
9 |     - 27017:27017
10 |   environment:
11 |     MONGO_INITDB_ROOT_USERNAME: alathereon
12 |     MONGO_INITDB_ROOT_PASSWORD: alathereonn
13 |     MONGO_INITDB_DATABASE: admin
14 |   volumes:
15 |     - ./data-mongo1:/data/db
```

Docker Compose: LONG SYNTAX VOLUME

```
17  # mongodb2
    ▷ Run Service
18  mongodb2:
19      image: mongo:latest
20      container_name: mongodb2
21      ports:
22      - 27018:27017
23      environment:
24      MONGO_INITDB_ROOT_USERNAME: alathereon
25      MONGO_INITDB_ROOT_PASSWORD: alathereonn
26      MONGO_INITDB_DATABASE: admin
27      volumes:
28      - type: bind
29        source: ./data-mongodb2
30        target: /data/db
31        read_only: false
32
```



Docker Compose: Menghapus VOLUME

NETWORK

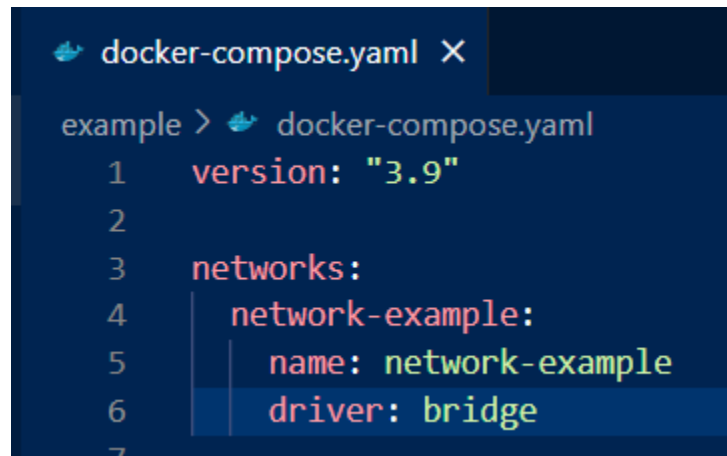
Pengenalan NETWORK

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\example> docker inspect mongodb1

[{"Networks": {"example_default": {"IPAMConfig": null, "Links": null, "Aliases": ["mongodb1", "mongodb1"], "MacAddress": "16:2f:a7:a7:2b:ff", "DriverOpts": null, "GwPriority": 0, "NetworkID": "55e7523851aa2f68e5dc66aa5e868265256dbe15b60f369ddb5df4ce29fcc0", "EndpointID": "93ede2e3538c05f14061218d3a6a2d68632808d5f69dcb0d41fb6a46fc55ed31", "Gateway": "172.19.0.1", "IPAddress": "172.19.0.3", "IPPrefixLen": 16, "IPv6Gateway": "", "GlobalIPv6Address": "", "GlobalIPv6PrefixLen": 0, "DNSNames": ["mongodb1", "33458905a091"]}}}]
```

```
user > Dockerfile > ...
1 FROM golang:1.18-alpine
2
3 RUN mkdir /app
4
5 RUN addgroup -S a206group
6 RUN adduser -S -D -h /app a206user a206group
7 RUN chown -R a206user:a206group /app
8 USER a206user
9
10 COPY main.go /app
11
12 EXPOSE 8080
13 CMD go run /app/main.go
```


Docker Compose: Membuat NETWORK




The screenshot shows a code editor with a file named `docker-compose.yaml`. The content of the file is a Docker Compose configuration for a network. The configuration includes a `version` field set to `"3.9"` and a `networks` section. Under `networks`, there is a `network-example` entry with `name: network-example` and `driver: bridge`. The editor has a dark theme and line numbers are visible on the left side.

```
example > docker-compose.yaml
1  version: "3.9"
2
3  networks:
4    network-example:
5      name: network-example
6      driver: bridge
7
```

Docker Compose: Menggunakan NETWORK

 docker-compose.yaml X

example >  docker-compose.yaml

```
1  version: "3.9"
2
3  networks:
4    network_example:
5      name: network_example
6      driver: bridge
7
8  services:
9    # kalau yang ini contoh mongodb
10   mongodb1:
11     image: mongo:latest
12     container_name: mongodb1
13     ports:
14       - 27017:27017
15     environment:
16       MONGO_INITDB_ROOT_USERNAME: alathereon
17       MONGO_INITDB_ROOT_PASSWORD: alathereonn
18       MONGO_INITDB_DATABASE: admin
19     networks:
20       - network_example
```

```
PS E:\Semester 5\Parallel and Distributed System\docker-compose\example> docker inspect mongodb1
```

```
  "Networks": {
    "network_example": {
      "IPAMConfig": null,
      "Links": null,
      "Aliases": [
        "mongodb1",
        "mongodb1"
      ],
      "MacAddress": "ea:fc:a9:0d:f9:3a",
      "DriverOpts": null,
      "GwPriority": 0,
      "NetworkID": "04441968174d9f0a562036171b6ed62e9ecd9428c9bae3edabbfaa3104a5881b",
      "EndpointID": "d3aa9e67d440a07c24e847a944a66f02cecdc171830881007bfe99c9bc6be4cf",
      "Gateway": "172.19.0.1",
      "IPAddress": "172.19.0.2",
      "IPPrefixLen": 16,
      "IPv6Gateway": "",
      "GlobalIPv6Address": "",
      "GlobalIPv6PrefixLen": 0,
      "DNSNames": [
        "mongodb1",
        "65f6e78478a6"
      ]
    }
  }
```

DEPENDS ON

Pengenalan DEPENDS ON

```
docker-compose.yml ×
example > docker-compose.yml
1  version: "3.9"
2
3  networks:
4    network_example:
5      name: network_example
6      driver: bridge
7
8  services:
9    mongodb-express-example:
10     image: mongo-express-latest
11     container_name: mongodb-express-example
12     depends_on:
13       - mongodb-example
14     ports:
15       - 8081:8081
16     envirnoment:
17       ME_CONFIG_MONGODB_ADMINUSERNAME: alathereon
18       ME_CONFIG_MONGODB_ADMINPASSWORD: alathereonn
19       ME_CONFIG_MONGODB_SERVER: mongodb-example
20     networks:
21       - network_example
```

RESTART

Pengenalan RESTART

🐳 docker-compose.yaml X

example > 🐳 docker-compose.yaml

```
1  version: "3.9"
2
3  networks:
4    network_example:
5      name: network_example
6      driver: bridge
7
8  services:
9    mongodb-express-example:
10     image: mongo-express-latest
11     container_name: mongodb-express-example
12     restart: always
13     depends_on:
14       - mongodb-example
15     ports:
16       - 8081:8081
17     envirnoment:
18       ME_CONFIG_MONGODB_ADMINUSERNAME: alathereon
19       ME_CONFIG_MONGODB_ADMINPASSWORD: alathereonn
20       ME_CONFIG_MONGODB_SERVER: mongodb-example
21     networks:
22       - network_example
23
```

Docker Compose: Monitor Docker Events

```
PS E:\Semester 5\Parallel and Distributed System\Dockerfile> docker build -t zakariafattawari/health health
[+] Building 6.2s (9/9) FINISHED
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 253B
=> [internal] load metadata for docker.io/library/golang:1.18-alpine
=> [internal] load .dockerignore
=> => transferring context: 2B
=> CACHED [1/4] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807
=> => resolve docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807
=> [internal] load build context
=> => transferring context: 531B
=> [2/4] RUN apk --no-cache add curl
=> [3/4] RUN mkdir app
=> [4/4] COPY main.go app
=> exporting to image
=> => exporting layers
=> => exporting manifest sha256:b7de3a8668c2c919d85a65a4fa0c268574a80955e4bbb4eade5e9dab51543d8b
=> => exporting config sha256:35ce73ae1c0f1cd7f2c490710a622b456d1654f20fdb551baa54c3e4129b89b4
=> => exporting attestation manifest sha256:7eed0c23bc4f07c08b0884b89bd38b075a4f6baa5801ef1eef5633ded853ddfc
=> => exporting manifest list sha256:1c60c0a75128ecbeb0e55d64941b84ccc187df7a1ffb61939f131b5e052453d8
=> => naming to docker.io/zakariafattawari/health:latest
=> => unpacking to docker.io/zakariafattawari/health:latest

1 warning found (use docker --debug to expand):
- JSONArgsRecommended: JSON arguments recommended for CMD to prevent unintended behavior related to OS signals (line 10)

View build details: docker-desktop://dashboard/build/desktop-linux/desktop-linux/xjkevpo6kggyn8fz8xw02k89q
PS E:\Semester 5\Parallel and Distributed System\Dockerfile>
```

RESOURCE LIMIT

Pengenalan RESOURCE LIMIT

```
resource limit > 🐳 docker-compose.yml
1  version: "3.9"
2
3  nginx-example:
4    image: nginx:latest
5    container_name: nginx-example
6    ports:
7      - "8080:80"
8    deploy:
9      resources:
10       reservations:
11         cpus: "0.25"
12         memory: 50M
13       limits:
14         cpus: "0.5"
15         memory: 100M
```

entrypoint >  Dockerfile > ...

```
1 FROM golang:1.18-alpine
2
3 RUN mkdir /app/
4 COPY main.go /app/
5
6 EXPOSE 8080
7 ENTRYPOINT ["go", "run"]
8 CMD ["/app/main.go"]
```

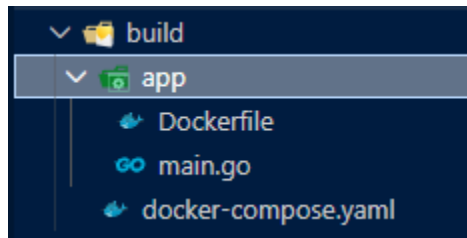



Docker Compose: CONTAINER STATS

CONTAINER ID	NAME	CPU %	MEM USAGE / LIMIT	MEM %	NET I/O	BLOCK I/O	PIDS
d244126b3dd6	nginx-example	0.00%	17.4MiB / 100MiB	17.40%	1.7kB / 126B	13MB / 12.3kB	17

DOCKERFILE

Membuat Dockerfile



```
build > app >  main.go
```

```
1  package main
2
3  import (
4      "fmt"
5      "net/http"
6      "os"
7  )
8
9  func main() {
10     port := os.Getenv("APP_PORT")
11     fmt.Println("Run app in port : " + port)
12     http.HandleFunc("/", HelloServer)
13     http.ListenAndServe(":"+port, nil)
14 }
15
16 func HelloServer(w http.ResponseWriter, r *http.Request) {
17     fmt.Fprintf(w, "Hello, World!")
18 }
```

```
build > app > Dockerfile > FROM
```

```
1 FROM golang:1.18-alpine
2
3 ENV APP_PORT=8080
4
5 RUN mkdir app
6 COPY main.go app
7
8 EXPOSE ${APP_PORT}
9
10 CMD go run app/main.go
```

```
build > docker-compose.yml
```

```
1 version: "3.9"
2
3 Run All Services
4 services:
5   Run Service
6   app:
7     container_name: app
8     build:
9       context: "./app"
10      dockerfile: Dockerfile
11     image: "app-golang:1.0.0"
12     environment:
13       - "APP_PORT=8080"
14     ports:
15       - "8080:8080"
```

Docker Compose: BUILD DOCKEFILE

```
PS E:\Semester 5\Parallel and Distributed System\docker-compose> cd build
PS E:\Semester 5\Parallel and Distributed System\docker-compose\build> docker compose build
time="2025-11-16T21:53:31.408+00" level=warning msg="E:\Semester 5\Parallel and Distributed System\docker-compose\build\docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Building 1.55 (10/10) FINISHED
-> [internal] load local bake definitions                                0.0s
-> >> reading from stdin 595B                                           0.0s
-> [internal] load build definition from Dockerfile                     0.0s
-> >> transferring dockerfile: 164B                                     0.0s
-> [internal] load metadata for docker.io/library/golang:1.18-alpine    1.2s
-> [internal] load .dockerignore                                         0.0s
-> >> transferring context: 2B                                           0.0s
-> [1/3] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807 0.0s
-> >> resolve docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807 0.0s
-> [internal] load build context                                         0.0s
-> >> transferring context: 29B                                           0.0s
-> CACHED [2/3] RUN mkdir app                                           0.0s
-> CACHED [3/3] COPY main.go app                                         0.0s
-> exporting to image                                                   0.1s
-> >> exporting layers                                                    0.0s
-> >> exporting manifest sha256:2899bffffb754115f05e6abb181a84970036bdd2b77e71a13aa23de02f7065300 0.0s
-> >> exporting config sha256:0c83ce8b7e921f96ed8d8955b1e270e31ae19c4b0a7437547c2e9854f93b4311 0.0s
-> >> exporting attestation manifest sha256:6b321c7c48acf3af412d5187fe789a1d1a7301061ff0dc777bd95b710a811d50 0.0s
-> >> exporting manifest list sha256:4dc623d0af086b4d1a85e110dde3d58108bb91060a328c745474ba5e43783fdc 0.0s
-> >> naming to docker.io/library/app-golang:1.0.0                     0.0s
-> >> unpacking to docker.io/library/app-golang:1.0.0                   0.0s
-> resolving provenance for metadata file                               0.0s
[+] Building 1/1
✓ app-golang:1.0.0 Built                                              0.0s
PS E:\Semester 5\Parallel and Distributed System\docker-compose\build> |
```

Docker Compose: Menghapus Image

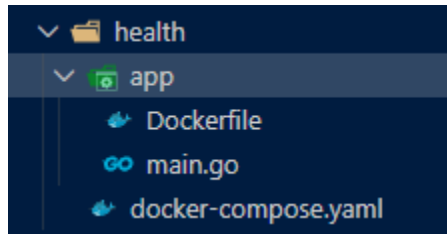
```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\build> docker image rm app-golang:1.0.0
Untagged: app-golang:1.0.0
Deleted: sha256:4dc623d0af086b4d1a85e110dde3d58108bb91060a328c745474ba5e43783fdc
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\build> █
```

Docker Compose: BUILD Ulang

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\build> docker compose down
time="2025-11-16T21:59:09+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\build\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\build> docker compose build
time="2025-11-16T21:59:27+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\build\\docker-compose.yaml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Building 3.7s (11/11) FINISHED
=> [internal] load local bake definitions
=> => reading from stdin 5958
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 1648
=> [internal] load metadata for docker.io/library/golang:1.18-alpine 3.3s
=> [auth] library/golang:pull token for registry-1.docker.io 0.0s
=> [internal] load .dockerignore 0.0s
=> => transferring context: 28 0.0s
=> [1/2] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be09c901ae90453fd0f1c5a45691f6cb1528807 0.0s
=> resolve docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be09c901ae90453fd0f1c5a45691f6cb1528807 0.0s
=> [internal] load build context 0.0s
=> => transferring context: 298 0.0s
=> CACHED [2/3] RUN mkdir app 0.0s
=> CACHED [3/3] COPY main.go app 0.0s
=> exporting to image 0.1s
=> => exporting layers 0.0s
=> => exporting manifest sha256:68dd9b624d342c6021ce1a9d356676e0a83f424c9048497950a05353afeba84 0.0s
=> => exporting config sha256:2ec1dfa08d1c0cc8ab85119c58e86486187436d83b627f553ff049605486d11d 0.0s
=> => exporting attestation manifest sha256:4e20f4c0e6b4f2055cddc850056868c1d3bf1b0f2dafdb088d1106d96ea30e53 0.0s
=> => exporting manifest list sha256:c9360b7df7df8299b342a7b754175ddbc173007fe24001d4bb36e33cc5feb68a 0.0s
=> => naming to docker.io/library/app-golang:1.0.0 0.0s
=> => unpacking to docker.io/library/app-golang:1.0.0 0.0s
=> resolving provenance for metadata file 0.0s
[+] Building 1/1
✓ app-golang:1.0.0 Built 0.0s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\build>
```

HEALTHCHECK

Pengenalan HEALTHCHECK



```
health > 🐳 docker-compose.yaml
```

```
1  version: "3.9"
```

```
2
```

```
   ▶ Run All Services
```

```
3  services:
```

```
   ▶ Run Service
```

```
4  app:
```

```
   container_name: app
```

```
   build:
```

```
     context: "./app"
```

```
     dockerfile: Dockerfile
```

```
   image: "app-golang:1.0.0"
```

```
   environment:
```

```
     - "APP_PORT=8080"
```

```
   ports:
```

```
     - "8080:8080"
```

```
   healthcheck:
```

```
     test: ["CMD", "curl", "-f", "http://localhost:8080/health"]
```

```
     interval: 5s
```

```
     timeout: 5s
```

```
     retries: 3
```

```
     start_period: 3s
```

```
health > app > 🐳 Dockerfile > ...
```

```
1  FROM golang:1.18-alpine
```

```
2
```

```
3  RUN apk --no-cache add curl
```

```
4  RUN mkdir app
```

```
5
```

```
6  COPY main.go app
```

```
7
```

```
8  EXPOSE 8080
```

```
9
```

```
10 CMD go run app/main.go
```

```
health > app > main.go
```

```
1  package main
2
3  import (
4      "fmt"
5      "net/http"
6  )
7
8  var counter = 0
9
10 func main() {
11     http.HandleFunc("/", HelloServer)
12     http.HandleFunc("/health", HealthCheck)
13
14     http.ListenAndServe(":8080", nil)
15 }
16
17 func HealthCheck(w http.ResponseWriter, r *http.Request) {
18     counter = counter + 1
19     if counter > 5 {
20         w.WriteHeader(500)
21         fmt.Fprintf(w, "KO")
22     } else {
23         fmt.Fprintf(w, "OK")
24     }
25 }
26
27 func HelloServer(w http.ResponseWriter, r *http.Request) {
28     fmt.Fprintf(w, "Hello, World!")
29 }
```

Docker Compose: HEALTHCHECK

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose> cd health
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\health> docker compose up --build -d
time="2025-11-16T22:11:33+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\health\docker-compose.yaml: the attribute
move it to avoid potential confusion"
[+] Building 0.9s (11/11) FINISHED
=> [internal] load local bake definitions
=> => reading from stdin 598B
=> [internal] load build definition from Dockerfile
=> => transferring dockerfile: 169B
=> [internal] load metadata for docker.io/library/golang:1.18-alpine
=> [internal] load .dockerignore
=> => transferring context: 2B
=> [1/4] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807
=> => resolve docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807
=> [internal] load build context
=> => transferring context: 29B
=> CACHED [2/4] RUN apk --no-cache add curl
=> CACHED [3/4] RUN mkdir app
=> CACHED [4/4] COPY main.go app
=> exporting to image
=> => exporting layers
=> => exporting manifest sha256:f39ae8106314bf0134dd67644f0aa532d7cc2933e275918d447ae35e78cb7761
=> => exporting config sha256:ad837cb47ab7c63b4f316d55128099f0d569500f3ec132639c15a35a2ab189cc
=> => exporting attestation manifest sha256:5b79c8cfe5957b62967d41928e5f86fd02ea42d951298a94456d9151a52a7e17
=> => exporting manifest list sha256:95e8a3e5b85aea2d386c0a71ab2eb071160021c750500bb01d18c9930b7371fd
=> => naming to docker.io/library/app-golang:1.0.0
=> => unpacking to docker.io/library/app-golang:1.0.0
=> resolving provenance for metadata file
[+] Running 2/2
  ✓ app-golang:1.0.0 Built
  ✓ Container app Started
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\health> docker compose ps
time="2025-11-16T22:11:38+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\health\docker-compose.yaml: the attribute
move it to avoid potential confusion"

```

NAME	IMAGE	COMMAND	SERVICE	CREATED	STATUS	PORTS
app	app-golang:1.0.0	"/bin/sh -c 'go run ..."	app	4 seconds ago	Up 3 seconds (health: starting)	0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\health> docker compose ps
time="2025-11-16T22:11:50+08:00" level=warning msg="E:\Semester 5\Parallel and Distributed System\Docker Compose\health\docker-compose.yaml: the attribute
move it to avoid potential confusion"

```

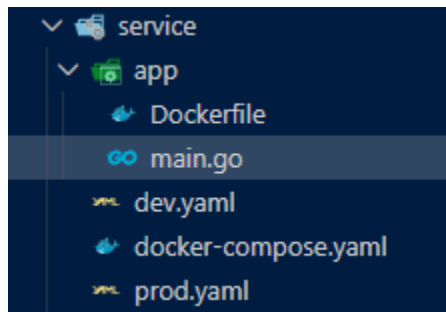
NAME	IMAGE	COMMAND	SERVICE	CREATED	STATUS	PORTS
app	app-golang:1.0.0	"/bin/sh -c 'go run ..."	app	16 seconds ago	Up 15 seconds (healthy)	0.0.0.0:8080->8080/tcp, [::]:8080->8080/tcp

Docker Compose: Disable HEALTHCHECK

```
health > 🐳 docker-compose.yaml
1  version: "3.9"
2
   ↳ Run All Services
3  services:
   ↳ Run Service
4    app:
5      container_name: app
6      build:
7        context: "./app"
8        dockerfile: Dockerfile
9      image: "app-golang:1.0.0"
10     environment:
11       - "APP_PORT=8080"
12     ports:
13       - "8080:8080"
14     healthcheck:
15       test: ["CMD", "curl", "-f", "http://localhost:8080/health"]
16       interval: 5s
17       timeout: 5s
18       retries: 3
19       start_period: 3s
20       disable: true
```

EXTEND SERVICE

Pengenalan EXTEND SERVICE



```
service > docker-compose.yaml
1  version: "3.9"
2
3  services:
4    app:
5      container_name: app
6      build:
7        context: "./app"
8        dockerfile: Dockerfile
9      image: "app-golang:1.0.0"
10     environment:
11       - "APP_PORT=8080"
12       - "MODE=local"
13     ports:
14       - "8080:8080"
```

```
service > dev.yaml
1  version: "3.9"
2
3  services:
4    app:
5      environment:
6        - "MODE=dev"
```

```
service > prod.yaml
1  version: "3.9"
2
3  services:
4    app:
5      environment:
6        - "MODE=prod"
```

```
service > app > Dockerfile > ...
1 FROM golang:1.18-alpine
2
3 ENV APP_PORT=8080
4 ENV MODE=local
5
6 RUN mkdir app
7 COPY main.go app
8
9 EXPOSE ${APP_PORT}
10
11 CMD go run app/main.go
```

```
service > app > main.go
1 package main
2
3 import (
4     "fmt"
5     "net/http"
6     "os"
7 )
8
9 func main() {
10     port := os.Getenv("APP_PORT")
11     fmt.Println("Run app in port : " + port)
12     http.HandleFunc("/", HelloServer)
13     http.ListenAndServe(":"+port, nil)
14 }
15
16 func HelloServer(w http.ResponseWriter, r *http.Request) {
17     mode := os.Getenv("MODE")
18     response := "Hello " + mode
19     fmt.Fprintf(w, response)
20 }
```

Docker Compose: EXTEND SERVICE

```
PS E:\Semester 5\Parallel and Distributed System\Docker Compose> cd service
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\service> docker compose -f docker-compose.yaml -f dev.yaml create
time="2025-11-16T22:32:39+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\service\\docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
time="2025-11-16T22:32:39+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\service\\dev.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Creating 2/2
  ✓ Network service_default Created 0.05s
  ✓ Container app Created 0.05s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\service> docker compose -f docker-compose.yaml -f dev.yaml start
time="2025-11-16T22:32:44+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\service\\docker-compose.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
time="2025-11-16T22:32:44+08:00" level=warning msg="E:\\Semester 5\\Parallel and Distributed System\\Docker Compose\\service\\dev.yaml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 1/1
  ✓ Container app Started 0.25s
PS E:\Semester 5\Parallel and Distributed System\Docker Compose\service> curl.exe http://localhost:8080
Hello dev
```