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Matakuliah   : Sister Terdistribusi B

Kode FROM Instruction

Kode : Docker Build

Kode Run Instruction

Kode : Docker Build

Kode Command Instruction
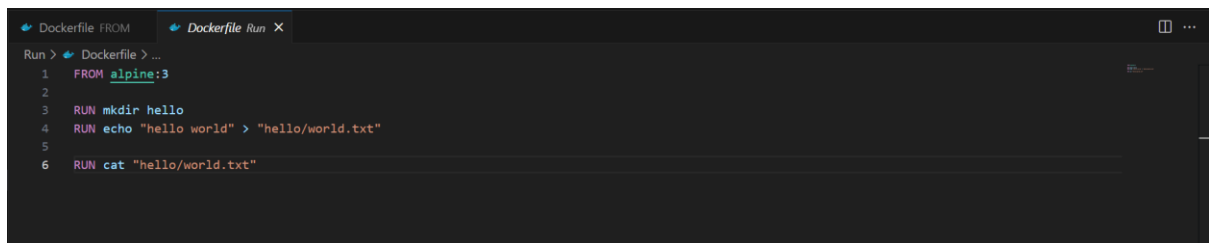
```
Dockerfile FROM          Dockerfile Run ×
Run > Dockerfile > ...
1    FROM alpine:3
2
3    RUN mkdir hello
4    RUN echo "hello world" > "hello/world.txt"
5
6    RUN cat "hello/world.txt"
```
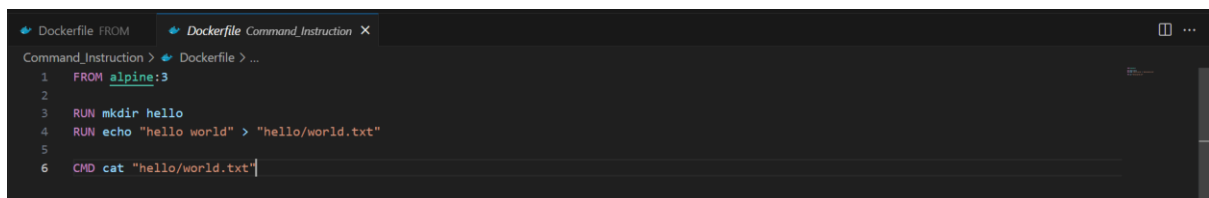
Kode : Docker Build

```
PS C:\Gerson Wissaluno\docker> docker build -t sister/run run
[+] Building 0.0s (0/0)                                                                docker:default
[+] Building 2.3s (9/9) FINISHED                                                       docker:default
 => [internal] load .dockerignore                                                               0.0s
 => => transferring context: 2B                                                                 0.0s
 => [internal] load build definition from Dockerfile                                            0.0s
 => => transferring dockerfile: 142B                                                            0.0s
 => [internal] load metadata for docker.io/library/alpine:3                                     2.1s
 => [auth] library/alpine:pull token for registry-1.docker.io                                   0.0s
 => [1/4] FROM docker.io/library/alpine:3@sha256:eece025e432126ce23f223450a0326fbebde39cdf496a85d8c016293fc851978   0.0s
 => CACHED [2/4] RUN mkdir hello                                                                0.0s
 => CACHED [3/4] RUN echo "hello world" > "hello/world.txt"                                     0.0s
 => CACHED [4/4] RUN cat "hello/world.txt"                                                      0.0s
 => exporting to image                                                                          0.0s
 => => exporting layers                                                                         0.0s
 => => writing image sha256:c19ec76d2d67387ba03aff60cc7f29aaa322497993d2564dcaa1d3f6df8fd0fa    0.0s
 => => naming to docker.io/sister/run                                                           0.0s

What's Next?
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```
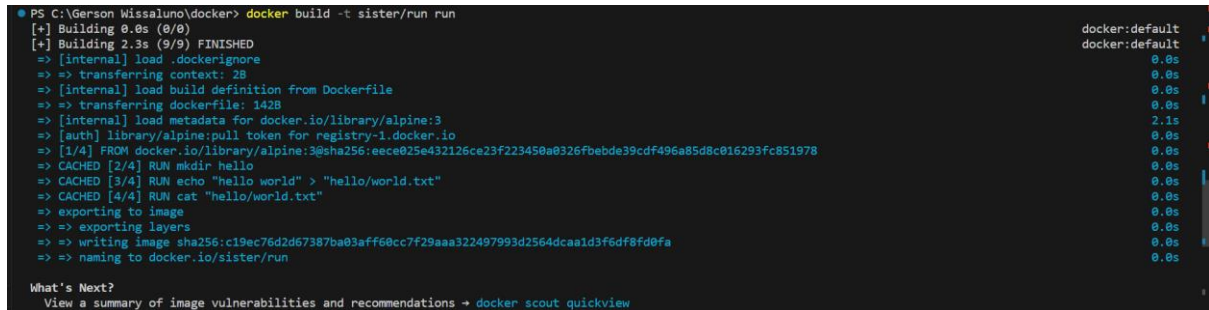
Kode Command Instruction

```
Dockerfile FROM          Dockerfile Command_Instruction ×
Command_Instruction > Dockerfile > ...
1    FROM alpine:3
2
3    RUN mkdir hello
4    RUN echo "hello world" > "hello/world.txt"
5
6    CMD cat "hello/world.txt"
```
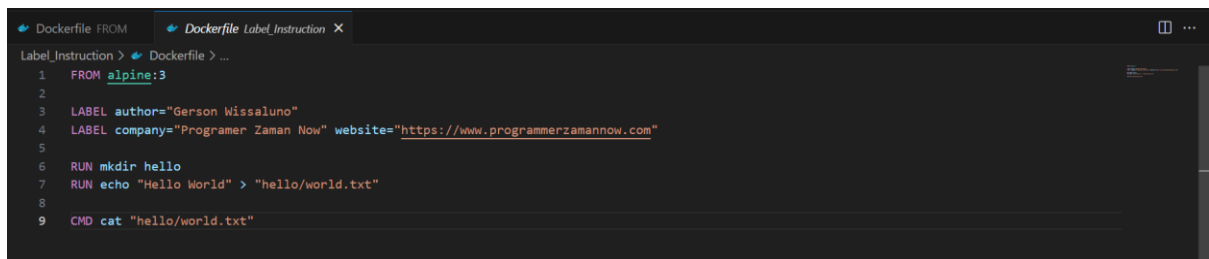
Kode : Docker Build

```
PS C:\Gerson Wissaluno\docker> docker container create --name command sister/command
c51222fe0bcf9f4727f5c6e1969c375e9b108ebfc8cf60f505f875ea987fb1cc
PS C:\Gerson Wissaluno\docker> docker container start command
command
PS C:\Gerson Wissaluno\docker> docker container logs command
hello world
PS C:\Gerson Wissaluno\docker>
```

Kode Label Instruction

```
Dockerfile FROM          Dockerfile Label_Instruction ×
Label_Instruction > Dockerfile > ...
1    FROM alpine:3
2
3    LABEL author="Gerson Wissaluno"
4    LABEL company="Programer Zaman Now" website="https://www.programmerzamannow.com"
5
6    RUN mkdir hello
7    RUN echo "Hello World" > "hello/world.txt"
8
9    CMD cat "hello/world.txt"
```

Kode : Docker Build

```
● PS C:\Gerson Wissaluno\docker\Label_Instruction> docker build -t sister/label .
[+] Building 3.6s (8/8) FINISHED                                                    docker:default
=> [internal] load build definition from Dockerfile                                          0.1s
=> => transferring dockerfile: 261B                                                          0.0s
=> [internal] load .dockerignore                                                             0.0s
=> => transferring context: 2B                                                               0.0s
=> [internal] load metadata for docker.io/library/alpine:3                                   3.4s
=> [auth] library/alpine:pull token for registry-1.docker.io                                 0.0s
=> [1/3] FROM docker.io/library/alpine:3@sha256:eece025e432126ce23f223450a0326fbebde39cdf496a85d8c016293fc851978    0.0s
=> CACHED [2/3] RUN mkdir hello                                                              0.0s
=> CACHED [3/3] RUN echo "Hello World" > "hello/world.txt"                                   0.0s
=> exporting to image                                                                        0.0s
=> => exporting layers                                                                       0.0s
=> => writing image sha256:89588c37e06667a58f0c4fbf5e4f29aa88f91183d0f870c862fed5d56a5e69e0  0.0s
=> => naming to docker.io/sister/label                                                       0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
○ PS C:\Gerson Wissaluno\docker\Label_Instruction>
```
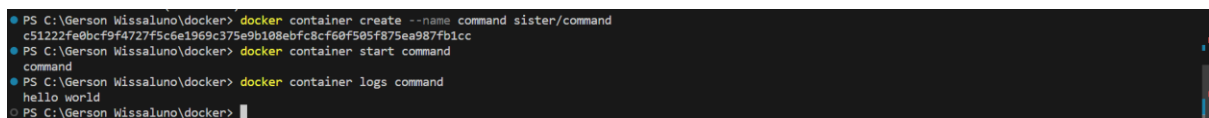
```
● PS C:\Gerson Wissaluno\docker\Label_Instruction> docker image inspect sister/label
[
    {
        "Id": "sha256:89588c37e06667a58f0c4fbf5e4f29aa88f91183d0f870c862fed5d56a5e69e0",
        "RepoTags": [
            "sister/label:latest"
        ],
        "RepoDigests": [],
        "Parent": "",
        "Comment": "buildkit.dockerfile.v0",
        "Created": "2023-10-10T01:35:10.840034802Z",
        "Container": "",
        "ContainerConfig": {
            "Hostname": "",
            "Domainname": "",
            "User": "",
            "AttachStdin": false,
            "AttachStdout": false,
            "AttachStderr": false,
            "Tty": false,
            "OpenStdin": false,
            "StdinOnce": false,
            "Env": null,
            "Cmd": null,
            "Image": "",
            "Volumes": null,
            "WorkingDir": "",
            "Entrypoint": null,
            "OnBuild": null,
```

Kode Add Instruction

```
add_instruction > ◆ Dockerfile > ...
1    FROM alpine:3
2
3    RUN mkdir hello
4    ADD text/*.txt hello
5
6    CMD cat "hello/world.txt"
```

Kode : Docker Build

```
● PS C:\Gerson Wissaluno\docker\add_instruction> docker build -t sister/add .
[+] Building 3.5s (9/9) FINISHED                                                    docker:default
=> [internal] load .dockerignore                                                             0.0s
=> => transferring context: 2B                                                               0.0s
=> [internal] load build definition from Dockerfile                                          0.0s
=> => transferring dockerfile: 120B                                                          0.0s
=> [internal] load metadata for docker.io/library/alpine:3                                   3.2s
=> [auth] library/alpine:pull token for registry-1.docker.io                                 0.0s
=> [1/3] FROM docker.io/library/alpine:3@sha256:eece025e432126ce23f223450a0326fbebde39cdf496a85d8c016293fc851978    0.0s
=> [internal] load build context                                                             0.0s
=> => transferring context: 207B                                                             0.0s
=> CACHED [2/3] RUN mkdir hello                                                               0.0s
=> [3/3] ADD text/*.txt hello                                                                0.1s
=> exporting to image                                                                        0.1s
=> => exporting layers                                                                        0.1s
=> => writing image sha256:9152af73d2391edd6b7526aa612b474c78db5d4353454c3f61390cbd1dbcf3e0  0.0s
=> => naming to docker.io/sister/add                                                         0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

Kode Add Instruction


```
Dockerfile From_Instruction    Dockerfile Add_Instruction    Dockerfile Copy_Instruction ×    gerson.txt    programmer.txt    world.txt

Copy_Instruction > Dockerfile > ...
    1    FROM alpine:3
    2
    3    RUN mkdir hello
    4    COPY text/*.txt hello
    5
    6    CMD cat "hello/world.txt"
```

Kode : Docker Build


```
PS C:\Gerson Wissaluno\docker\Copy_Instruction> docker build -t sister/copy .
[+] Building 1.3s (8/8) FINISHED                                                                    docker:default
 => [internal] load .dockerignore                                                                           0.0s
 => => transferring context: 2B                                                                             0.0s
 => [internal] load build definition from Dockerfile                                                        0.0s
 => => transferring dockerfile: 121B                                                                        0.0s
 => [internal] load metadata for docker.io/library/alpine:3                                                 1.0s
 => [1/3] FROM docker.io/library/alpine:3@sha256:eece025e432126ce23f223450a0326fbebde39cdf496a85d8c016293fc851978  0.0s
 => [internal] load build context                                                                           0.0s
 => => transferring context: 207B                                                                           0.0s
 => CACHED [2/3] RUN mkdir hello                                                                             0.0s
 => [3/3] COPY text/*.txt hello                                                                              0.1s
 => exporting to image                                                                                      0.1s
 => => exporting layers                                                                                     0.1s
 => => writing image sha256:7aea2bbb01a9024ab20c0ff53f1031ab7f669a2531c892eb9505ebce8ae6deaa                0.0s
 => => naming to docker.io/sister/copy                                                                      0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

Kode DockerIgnore


```
Dockerfile From_Instruction    Dockerfile Add_Instruction    Dockerfile Copy_Instruction    Dockerfile Dockerignore_File ×    app.log    sample.log    sample.txt

Dockerignore_File > Dockerfile > ...
    1    FROM alpine:3
    2
    3    RUN mkdir hello
    4    COPY text/* hello
    5
    6    CMD ls -l hello
```

Kode : Docker Build


```
PS C:\Gerson Wissaluno\docker\Dockerignore_File> docker build -t sister/ignore .
[+] Building 4.1s (9/9) FINISHED                                                                    docker:default
 => [internal] load .dockerignore                                                                           0.1s
 => => transferring context: 2B                                                                             0.0s
 => [internal] load build definition from Dockerfile                                                        0.1s
 => => transferring dockerfile: 107B                                                                        0.0s
 => [internal] load metadata for docker.io/library/alpine:3                                                 3.6s
 => [auth] library/alpine:pull token for registry-1.docker.io                                               0.0s
 => [1/3] FROM docker.io/library/alpine:3@sha256:eece025e432126ce23f223450a0326fbebde39cdf496a85d8c016293fc851978  0.0s
 => [internal] load build context                                                                           0.1s
 => => transferring context: 363B                                                                           0.0s
 => CACHED [2/3] RUN mkdir hello                                                                             0.0s
 => [3/3] COPY text/* hello                                                                                  0.1s
 => exporting to image                                                                                      0.1s
 => => exporting layers                                                                                     0.0s
 => => writing image sha256:ac2397b340281db3856d43f4d7054f9de06a4b9824044dfec56c59b4f5861e5d                0.0s
 => => naming to docker.io/sister/ignore                                                                    0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

```
PS C:\Gerson Wissaluno\docker\Dockerignore_File> docker container create --name ignore sister/ignore
88924e24907f02215b9ebf9e3ebe66b0238c2a07120ceb9332e3ed8d569ac610
PS C:\Gerson Wissaluno\docker\Dockerignore_File> docker container start ignore
ignore
PS C:\Gerson Wissaluno\docker\Dockerignore_File> docker container logs ignore
total 16
-rwxr-xr-x    1 root     root            15 Oct 12 23:50 app.log
-rwxr-xr-x    1 root     root            18 Oct 12 23:51 sample.log
-rwxr-xr-x    1 root     root            19 Oct 12 23:49 sample.txt
-rwxr-xr-x    1 root     root            11 Oct 12 23:48 world.txt
PS C:\Gerson Wissaluno\docker\Dockerignore_File>
```

Kode Expose Instruction


```
Expose_Instruction >  Dockerfile > ...
    1   FROM golang:1.18-alpine
    2
    3   RUN mkdir app
    4   COPY main.go app
    5
    6   EXPOSE 8080
    7
    8   CMD go run app/main.go
```



```
Expose_Instruction > GO main.go
    1   package main
    2
    3   import (
    4       "fmt"
    5       "net/http"
    6   )
    7
    8   func main() {
    9       http.HandleFunc("/", HelloServer)
   10       http.ListenAndServe(":8080", nil)
   11   }
   12
   13   func HelloServer(w http.ResponseWriter, r *http.Request) {
   14       fmt.Fprintf(w, "Hello, World!")
   15   }
```

Kode : Docker Build


```
PS C:\Gerson Wissaluno\docker\Expose_Instruction> docker build -t sister/expose .
[+] Building 43.6s (9/9) FINISHED                                                           docker:default
 => [internal] load build definition from Dockerfile                                                0.1s
 => => transferring dockerfile: 136B                                                                0.0s
 => [internal] load .dockerignore                                                                   0.1s
 => => transferring context: 2B                                                                     0.0s
 => [internal] load metadata for docker.io/library/golang:1.18-alpine                               4.1s
 => [auth] library/golang:pull token for registry-1.docker.io                                       0.0s
 => [1/3] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807  37.3s
 => => resolve docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807  0.1s
 => => sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807 1.65kB / 1.65kB      0.0s
 => => sha256:ab5685692564e027aa84e2980855775b2e48f8fc82c1590c0e1e8cbc2e716542 1.16kB / 1.16kB      0.0s
 => => sha256:a77f45e5f987fb7def8755903ad89fe37a38105dcf475be26550d7d86364e166 5.01kB / 5.01kB      0.0s
 => => sha256:8921db27df2831fa6eaa85321205a2470c669b855f3ec95d5a3c2b46de0442c9 3.37MB / 3.37MB      2.3s
 => => sha256:a2f8637abd914a8a62416e027a351293d0472bc4b4f44383c6f425fd0e03861c 284.81kB / 284.81kB  0.4s
 => => sha256:4ba80a8cd2c7b1695ffb2166c58c8d0f0d4562c943fdb929d22467df250536bb 115.40MB / 115.40MB  31.2s
 => => sha256:dbc2308a458705184f3d2a5000ced1c12609903c00c09a9cf01284764b57315b 155B / 155B          1.2s
 => => extracting sha256:8921db27df2831fa6eaa85321205a2470c669b855f3ec95d5a3c2b46de0442c9           0.2s
 => => extracting sha256:a2f8637abd914a8a62416e027a351293d0472bc4b4f44383c6f425fd0e03861c           0.1s
 => => extracting sha256:4ba80a8cd2c7b1695ffb2166c58c8d0f0d4562c943fdb929d22467df250536bb           5.6s
 => => extracting sha256:dbc2308a458705184f3d2a5000ced1c12609903c00c09a9cf01284764b57315b           0.0s
 => [internal] load build context                                                                   0.1s
 => => transferring context: 275B                                                                   0.0s
 => [2/3] RUN mkdir app                                                                             2.0s
 => [3/3] COPY main.go app                                                                          0.0s
 => exporting to image                                                                              0.1s
 => => exporting layers                                                                             0.0s
 => => writing image sha256:84675c13cff97346ae4c86344e1b7842cbccb1956169f0721ca0bef5dd48b559        0.0s
 => => naming to docker.io/sister/expose                                                            0.0s

What's Next?
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PS C:\Gerson Wissaluno\docker\Expose_Instruction>
```



```
PS C:\Gerson Wissaluno\docker\Expose_Instruction> docker inspect sister/expose
[
    {
        "Id": "sha256:84675c13cff97346ae4c86344e1b7842cbccb1956169f0721ca0bef5dd48b559",
        "RepoTags": [
            "sister/expose:latest"
        ],
        "RepoDigests": [],
        "Parent": "",
        "Comment": "buildkit.dockerfile.v0",
        "Created": "2023-10-13T00:02:22.459072898Z",
        "Container": "",
        "ContainerConfig": {
            "Hostname": "",
            "Domainname": "",
            "User": "",
            "AttachStdin": false,
            "AttachStdout": false,
            "AttachStderr": false,
            "Tty": false,
            "OpenStdin": false,
            "StdinOnce": false,
            "Env": null,
            "Cmd": null,
            "Image": "",
            "Volumes": null,
            "WorkingDir": "",
            "Entrypoint": null,
            "OnBuild": null,
            "Labels": null
        },
        "DockerVersion": "",
        "Author": "",
        "Config": {
            "Hostname": "",
            "Domainname": "",
            "User": "",
            "AttachStdin": false,
```

```
● PS C:\Gerson Wissaluno\docker\Expose_Instruction> docker container create --name expose -p 8080:8080 sister/expose
  f61684705895cf20dd1fca070018c6198f88beaaa0df25c4742e26b48a6c8826
● PS C:\Gerson Wissaluno\docker\Expose_Instruction> docker container start expose
  expose
● PS C:\Gerson Wissaluno\docker\Expose_Instruction> docker container ls
  CONTAINER ID   IMAGE           COMMAND              CREATED         STATUS          PORTS                     NAMES
  f61684705895   sister/expose   "/bin/sh -c 'go run …"   25 seconds ago   Up 8 seconds   0.0.0.0:8080->8080/tcp   expose
○ PS C:\Gerson Wissaluno\docker\Expose_Instruction>
```

Kode Environment Variabel Instruction


```
Env_Instruction > ❖ 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
```



```
Env_Instruction > ❖ 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   }
```

Kode : Docker Build


```
● PS C:\Gerson Wissaluno\docker\Env_Instruction> docker build -t sister/env .
  [+] Building 4.0s (9/9) FINISHED                                                        docker:default
   => [internal] load build definition from Dockerfile                                              0.1s
   => => transferring dockerfile: 164B                                                              0.0s
   => [internal] load .dockerignore                                                                 0.1s
   => => transferring context: 2B                                                                   0.0s
   => [internal] load metadata for docker.io/library/golang:1.18-alpine                             3.4s
   => [auth] library/golang:pull token for registry-1.docker.io                                     0.0s
   => CACHED [1/3] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807   0.0s
   => [internal] load build context                                                                 0.0s
   => => transferring context: 358B                                                                 0.0s
   => [2/3] RUN mkdir app                                                                            0.3s
   => [3/3] COPY main.go app                                                                         0.1s
   => exporting to image                                                                            0.1s
   => => exporting layers                                                                            0.1s
   => => writing image sha256:3ba431b19ecea093fd469324522124e1ac7e83ed7a8405c755b82269a6e90281      0.0s
   => => naming to docker.io/sister/env                                                              0.0s

  What's Next?
○   View a summary of image vulnerabilities and recommendations → docker scout quickview
  PS C:\Gerson Wissaluno\docker\Env_Instruction>
```

```
PS C:\Gerson Wissaluno\docker\Env_Instruction> docker image inspect sister/env
[
    {
        "Id": "sha256:3ba431b19ecea093fd469324522124e1ac7e83ed7a8405c755b82269a6e90281",
        "RepoTags": [
            "sister/env:latest"
        ],
        "RepoDigests": [],
        "Parent": "",
        "Comment": "buildkit.dockerfile.v0",
        "Created": "2023-10-13T00:10:04.080867554Z",
        "Container": "",
        "ContainerConfig": {
            "Hostname": "",
            "Domainname": "",
            "User": "",
            "AttachStdin": false,
            "AttachStdout": false,
            "AttachStderr": false,
            "Tty": false,
            "OpenStdin": false,
            "StdinOnce": false,
            "Env": null,
            "Cmd": null,
            "Image": "",
            "Volumes": null,
            "WorkingDir": "",
            "Entrypoint": null,
            "OnBuild": null,
            "Labels": null
        },
```

```
PS C:\Gerson Wissaluno\docker> docker container start env
env
PS C:\Gerson Wissaluno\docker> docker container create --name env --env APP_PORT=8080 -p 8080:8080 sister/env
d711dad72208b06025fc86c60488321f6d740b66e587d8bf6aa0476081e869c5
PS C:\Gerson Wissaluno\docker> docker container start env
env
PS C:\Gerson Wissaluno\docker> docker container logs env
Run app in port : 8080
PS C:\Gerson Wissaluno\docker>
```

Kode Volume Instruction


```
Volume_Instruction > Dockerfile > FROM
 1   FROM golang:1.18-alpine
 2
 3   ENV APP_PORT=8080
 4   ENV APP_DATA=/logs
 5
 6   RUN mkdir ${APP_DATA}
 7   RUN mkdir app
 8   COPY main.go app
 9
10   EXPOSE ${APP_PORT}
11   VOLUME ${APP_DATA}
12
13   CMD go run app/main.go
```

Kode : Docker Build

```
PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker build -t sister/volume .
[+] Building 4.7s (10/10) FINISHED                                                    docker:default
 => [internal] load build definition from Dockerfile                                      0.1s
 => => transferring dockerfile: 231B                                                      0.0s
 => [internal] load .dockerignore                                                         0.1s
 => => transferring context: 2B                                                           0.0s
 => [internal] load metadata for docker.io/library/golang:1.18-alpine                     3.5s
 => [auth] library/golang:pull token for registry-1.docker.io                             0.0s
 => CACHED [1/4] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807   0.0s
 => [internal] load build context                                                         0.0s
 => => transferring context: 685B                                                         0.0s
 => [2/4] RUN mkdir /logs                                                                 0.4s
 => [3/4] RUN mkdir app                                                                    0.5s
 => [4/4] COPY main.go app                                                                0.0s
 => exporting to image                                                                    0.1s
 => => exporting layers                                                                   0.1s
 => => writing image sha256:ad23fbaf5dad44216d3557ee98fd71e88b4e68d998a52516a74ffbc32bc04169   0.0s
 => => naming to docker.io/sister/volume                                                  0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

```
> View a summary of image vulnerabilities and recommendations -> docker scout quickview
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker image inspect sister/volume
[
    {
        "Id": "sha256:ad23fbaf5dad44216d3557ee98fd71e88b4e68d998a52516a74ffbc32bc04169",
        "RepoTags": [
            "sister/volume:latest"
        ],
        "RepoDigests": [],
        "Parent": "",
        "Comment": "buildkit.dockerfile.v0",
        "Created": "2023-10-13T00:19:51.963706358Z",
        "Container": "",
        "ContainerConfig": {
            "Hostname": "",
            "Domainname": "",
            "User": "",
            "AttachStdin": false,
            "AttachStdout": false,
            "AttachStderr": false,
            "Tty": false,
            "OpenStdin": false,
            "StdinOnce": false,
            "Env": null,
            "Cmd": null,
            "Image": "",
            "Volumes": null,
            "WorkingDir": "",
            "Entrypoint": null,
            "OnBuild": null,
            "Labels": null
```

```
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker container create --name volume --env APP_PORT=8080 -p 8080:8080 sister/volume
0d0df68f746e0365635279e0a54d12eeaf648f90c8e6cf44f660cb55d44f34d3
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker container start volume
  Error response from daemon: driver failed programming external connectivity on endpoint volume (d7060137d12353da759030b9f56435234202be8ebb7a79632c3783c8eaf4b54c): Bin
  d for 0.0.0.0:8080 failed: port is already allocated
  Error: failed to start containers: volume
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker container start volume
  volume
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker container logs volume
  Run app in port : 8080
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker container inspect volume
[
    {
        "Id": "0d0df68f746e0365635279e0a54d12eeaf648f90c8e6cf44f660cb55d44f34d3",
        "Created": "2023-10-13T00:22:45.027531653Z",
        "Path": "/bin/sh",
        "Args": [
            "-c",
            "go run app/main.go"
        ],
        "State": {
            "Status": "running",
            "Running": true,
            "Paused": false,
            "Restarting": false,
            "OOMKilled": false,
            "Dead": false,
            "Pid": 10014,
            "ExitCode": 0,
            "Error": "",
            "StartedAt": "2023-10-13T00:23:13.212334628Z",
            "FinishedAt": "0001-01-01T00:00:00Z"
        },
        "Image": "sha256:ad23fbaf5dad44216d3557ee98fd71e88b4e68d998a52516a74ffbc32bc04169",
        "ResolvConfPath": "/var/lib/docker/containers/0d0df68f746e0365635279e0a54d12eeaf648f90c8e6cf44f660cb55d44f34d3/resolv.conf",
        "HostnamePath": "/var/lib/docker/containers/0d0df68f746e0365635279e0a54d12eeaf648f90c8e6cf44f660cb55d44f34d3/hostname",
        "HostsPath": "/var/lib/docker/containers/0d0df68f746e0365635279e0a54d12eeaf648f90c8e6cf44f660cb55d44f34d3/hosts",
```

```
● PS C:\Gerson Wissaluno\docker\Volume_Instruction> docker volume ls
  DRIVER    VOLUME NAME
  local     6ec0d1541062e73b427b4e1e8003090803a418fe7c72328d918dfd0c059d5380
  local     ccc4b65e116d9eec7c2900d955781f2224b84776c8909619b46709d269ba1f94
```

Kode Working Directory Instrcution

```
main.go Env_Instruction    main.go Expose_Instruction    Dockerfile Volume_Instruction    ● Dockerfile Working_Directory_Instrcution ×    main.go Working_Directory_Instrcution

Working_Directory_Instrcution > ● Dockerfile > ...
1   FROM golang:1.18-alpine
2
3   WORKDIR /app
4   COPY main.go /app
5
6   EXPOSE 8080
7   CMD go run main.go
8
```

```go
package main

import (
    "fmt"
    "net/http"
)

func main() {
    http.HandleFunc("/", HelloServer)
    http.ListenAndServe(":8080", nil)
}

func HelloServer(w http.ResponseWriter, r *http.Request) {
    fmt.Fprintf(w, "Hello, World!")
}
```

Kode : Docker Build


```
PS C:\Gerson Wissaluno\docker\Working_Directory_Instrcution> docker build -t sister/workdir .
[+] Building 3.7s (9/9) FINISHED                                                          docker:default
 => [internal] load .dockerignore                                                                  0.1s
 => => transferring context: 2B                                                                    0.0s
 => [internal] load build definition from Dockerfile                                               0.1s
 => => transferring dockerfile: 132B                                                               0.0s
 => [internal] load metadata for docker.io/library/golang:1.18-alpine                              3.2s
 => [auth] library/golang:pull token for registry-1.docker.io                                      0.0s
 => CACHED [1/3] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807   0.0s
 => [internal] load build context                                                                  0.1s
 => => transferring context: 290B                                                                  0.0s
 => [2/3] WORKDIR /app                                                                              0.1s
 => [3/3] COPY main.go /app                                                                         0.1s
 => exporting to image                                                                             0.1s
 => => exporting layers                                                                            0.1s
 => => writing image sha256:0a85f02b46d7007fbc039ea0e803963c2f8379362507f92415e2dd148c34f1b1        0.0s
 => => naming to docker.io/sister/workdir                                                          0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```
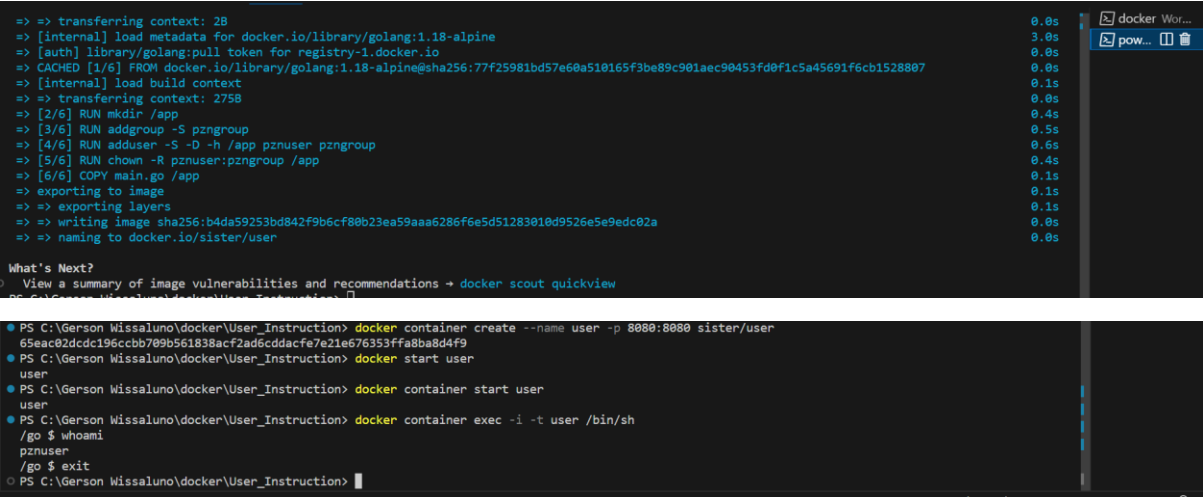


```
PS C:\Gerson Wissaluno\docker\Working_Directory_Instrcution> docker container create --name workdir -p 8080:8080 sister/workdir
50d4433ae3b5751bc15ce1ee113e364379e82b44ebd5bd79cc33fc17d6694b4b
PS C:\Gerson Wissaluno\docker\Working_Directory_Instrcution> docker container start workdir
Error response from daemon: driver failed programming external connectivity on endpoint workdir (b86d086071d757cab52e5a5b1e195048f93b93f24044ce9403b94c89f6b6b952): Bi
nd for 0.0.0.0:8080 failed: port is already allocated
Error: failed to start containers: workdir
PS C:\Gerson Wissaluno\docker\Working_Directory_Instrcution> docker container start workdir
workdir
PS C:\Gerson Wissaluno\docker\Working_Directory_Instrcution> docker container exec -i -t workdir /bin/sh
/app # pwd
/app
/app #
```

Kode User Instrcution


```dockerfile
FROM golang:1.18-alpine

RUN mkdir /app

RUN addgroup -S pzngroup
RUN adduser -S -D -h /app pznuser pzngroup
RUN chown -R pznuser:pzngroup /app

USER pznuser

COPY main.go /app

EXPOSE 8080
CMD go run /app/main.go
```



```go
package main

import (
    "fmt"
    "net/http"
)

func main() {
    http.HandleFunc("/", HelloServer)
    http.ListenAndServe(":8080", nil)
}

func HelloServer(w http.ResponseWriter, r *http.Request) {
    fmt.Fprintf(w, "Hello, World!")
}
```

Kode : Docker Build

```
=> => transferring context: 2B                                                                                0.0s
=> [internal] load metadata for docker.io/library/golang:1.18-alpine                                          3.0s
=> [auth] library/golang:pull token for registry-1.docker.io                                                  0.0s
=> CACHED [1/6] FROM docker.io/library/golang:1.18-alpine@sha256:77f25981bd57e60a510165f3be89c901aec90453fd0f1c5a45691f6cb1528807   0.0s
=> [internal] load build context                                                                              0.1s
=> => transferring context: 275B                                                                              0.0s
=> [2/6] RUN mkdir /app                                                                                        0.4s
=> [3/6] RUN addgroup -S pzngroup                                                                              0.5s
=> [4/6] RUN adduser -S -D -h /app pznuser pzngroup                                                            0.6s
=> [5/6] RUN chown -R pznuser:pzngroup /app                                                                    0.4s
=> [6/6] COPY main.go /app                                                                                     0.1s
=> exporting to image                                                                                          0.1s
=> => exporting layers                                                                                         0.1s
=> => writing image sha256:b4da59253bd842f9b6cf80b23ea59aaa6286f6e5d51283010d9526e5e9edc02a                    0.0s
=> => naming to docker.io/sister/user                                                                          0.0s

What's Next?
  View a summary of image vulnerabilities and recommendations → docker scout quickview
```

```
PS C:\Gerson Wissaluno\docker\User_Instruction> docker container create --name user -p 8080:8080 sister/user
65eac02dcdc196ccbb709b561838acf2ad6cddacfe7e21e676353ffa8ba8d4f9
PS C:\Gerson Wissaluno\docker\User_Instruction> docker start user
user
PS C:\Gerson Wissaluno\docker\User_Instruction> docker container start user
user
PS C:\Gerson Wissaluno\docker\User_Instruction> docker container exec -i -t user /bin/sh
/go $ whoami
pznuser
/go $ exit
PS C:\Gerson Wissaluno\docker\User_Instruction>
```

Images

	Name	Tag	Status	Created	Size	Actions
	sister/user b4da59253bd8	latest	In use	2 minutes ago	329.71 MB	▶ ⋮ 🗑
	sister/workdir 0a85f02b46d7	latest	In use	8 minutes ago	329.7 MB	▶ ⋮ 🗑
	sister/volume ad23fbaf5dad	latest	In use	20 minutes ag	329.7 MB	▶ ⋮ 🗑
	sister/env 3ba431b19ece	latest	In use	30 minutes ag	329.7 MB	▶ ⋮ 🗑
	sister/expose 84675c13cff9	latest	In use	38 minutes ag	329.7 MB	▶ ⋮ 🗑
	sister/ignore ac2397b34028	latest	In use	46 minutes ag	7.33 MB	▶ ⋮ 🗑
	sister/copy 7aea2bbb01a9	latest	Unused	56 minutes ag	7.33 MB	▶ ⋮ 🗑
	sister/add 9152af73d239	latest	Unused	60 minutes ag	7.33 MB	▶ ⋮ 🗑

	Name	Tag	Status	Created	Size	Actions
	7aea2bbb01a9					
	sister/add 9152af73d239	latest	Unused	60 minutes ag	7.33 MB	▶ ⋮ 🗑
	sister/label 89588c37e066	latest	In use	3 days ago	7.33 MB	▶ ⋮ 🗑
	sister/command d66bfac33da5	latest	In use	10 days ago	7.33 MB	▶ ⋮ 🗑
	sister/app c19ec76d2d67	latest	In use	10 days ago	7.33 MB	▶ ⋮ 🗑
	sister/run c19ec76d2d67	latest	In use	10 days ago	7.33 MB	▶ ⋮ 🗑
	sister/simple 1cad2846fc76	latest	In use	14 days ago	7.33 MB	▶ ⋮ 🗑

Containers

	Name	Image	Status	CPU (%)	Port(s)	Last started	Actions
☐	**determined_banzai** 11ff22e872ca	sister/app:latest	Exited	0%		2 hours ago	▶ ⋮ 🗑
☐	**suspicious_ellis** 5d23849cd82c	sister/app:latest	Exited	0%		1 hour ago	▶ ⋮ 🗑
☐	**hungry_fermat** 2e3f22fca305	sister/simple:latest	Exited	0%		1 hour ago	▶ ⋮ 🗑
☐	**command** c51222fe0bcf	sister/command	Exited	0%		1 hour ago	▶ ⋮ 🗑
☐	**ignore** 88924e24907f	sister/ignore	Exited	0%		28 minutes ago	▶ ⋮ 🗑
☐	**expose** f61684705895	sister/expose	Exited (2)	0%	8080:8080 ↗	37 minutes ago	▶ ⋮ 🗑
☐	**env** d711dad72208	sister/env	Exited (2)	0%	8080:8080 ↗	26 minutes ago	▶ ⋮ 🗑
☐	**volume** 0d0df68f746e	sister/volume	Exited (2)	0%	8080:8080 ↗	8 minutes ago	▶ ⋮ 🗑
☐	**workdir** 50d4433ae3b5	sister/workdir	Exited (2)	0%	8080:8080 ↗	8 minutes ago	▶ ⋮ 🗑
☐	**user** 65eac02dcdc1	sister/user	Running	0%	8080:8080 ↗	2 minutes ago	■ ⋮ 🗑

Search | Only show running containers