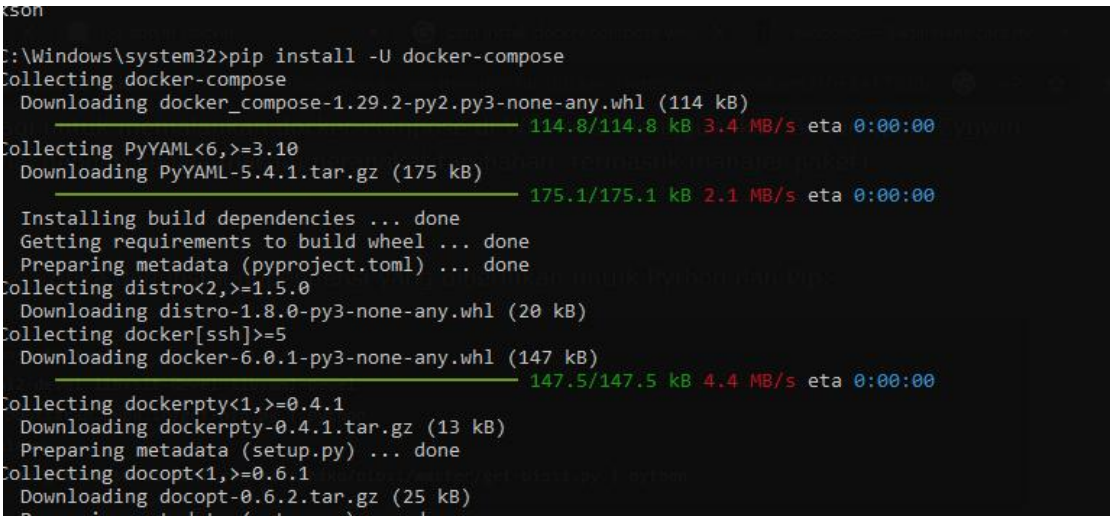
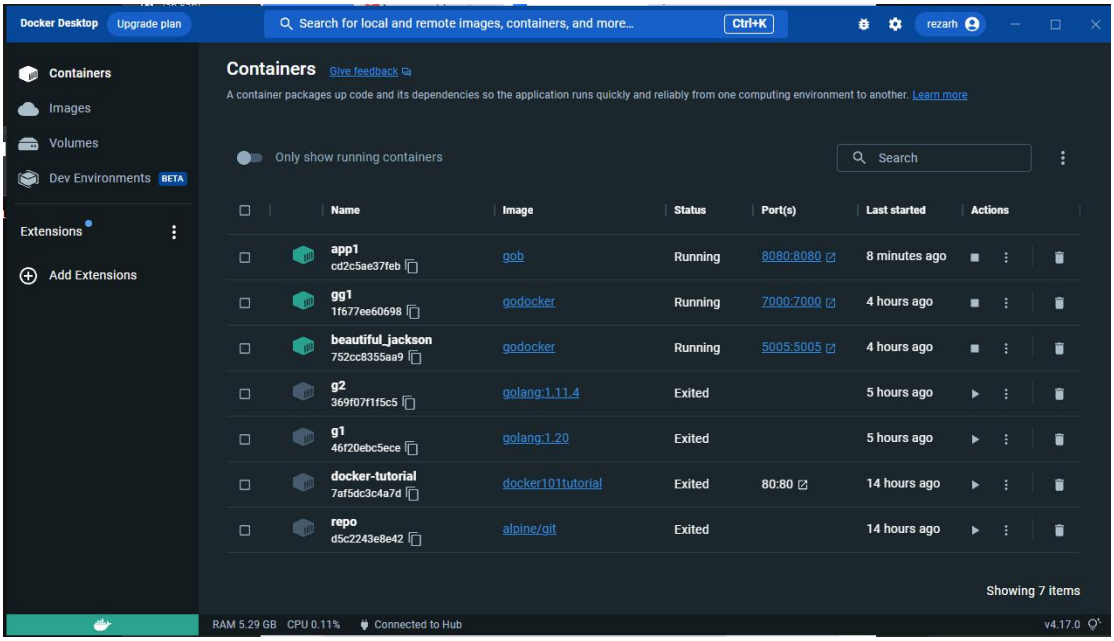
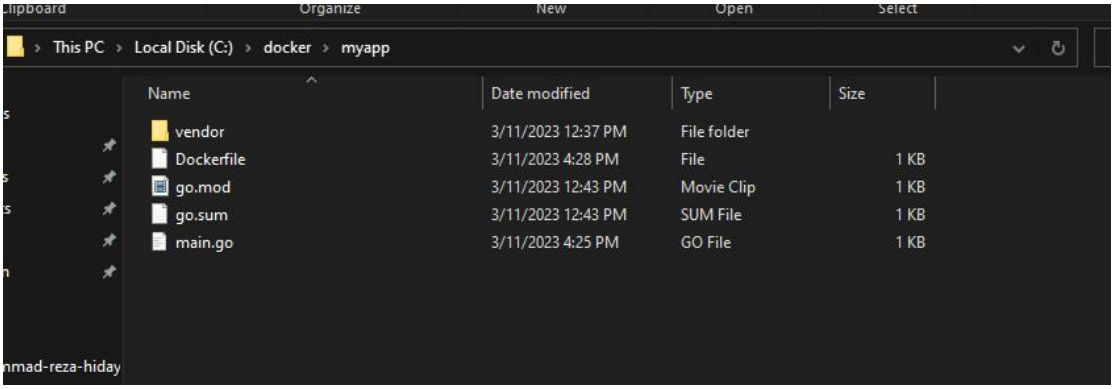
Tugas

1. Install docker & docker compose





2. Create dockerfile.



main.go go.mod 1 Dockerfile

Dockerfile > ...

```
1  FROM golang:1.20-bullseye
2
3  COPY main.go /app/main.go
4
5  CMD [ "go", "run", "/app/main.go" ]
6
7
```

3. Clone your code and integrate to your dockerfile.

main.go go.mod 1 Dockerfile

main.go > main

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

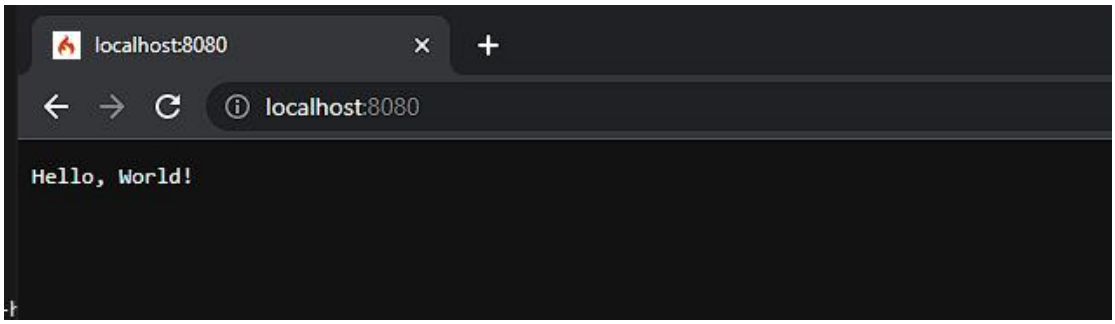
4. Build your container

```
C:\Windows\system32>docker container create --name app1 -p 8080:8080 gob
cd2c5ae37feb774501965e827737f560e6b8e261bc00e1ec8321917fe105d59f

C:\Windows\system32>docker container start app1
app1

C:\Windows\system32>docker container ls
CONTAINER ID   IMAGE      COMMAND                  CREATED          STATUS         PORTS                    NAMES
cd2c5ae37feb   gob        "go run /app/main.go"    13 seconds ago   Up 3 seconds   0.0.0.0:8080->8080/tcp   app1
1f677ee60698   godocker   "/myapp"                 4 hours ago      Up 4 hours     0.0.0.0:7000->7000/tcp   gg1
752cc8355aa9   godocker   "/myapp"                 4 hours ago      Up 4 hours     0.0.0.0:5005->5005/tcp   beautiful_jac
kson
```

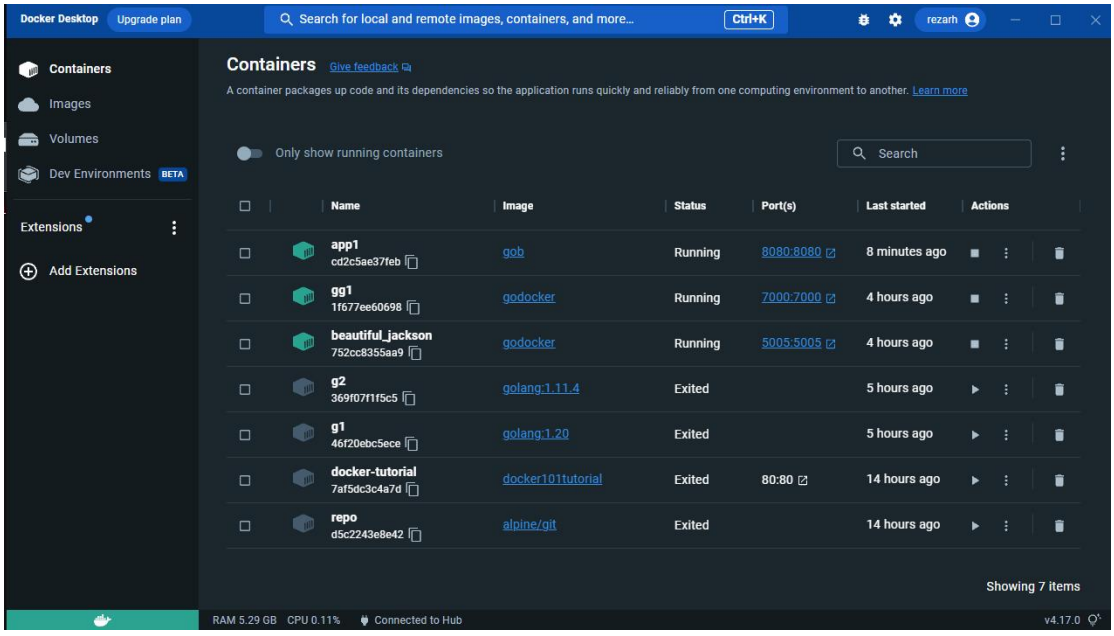
5. Push the image to docker registry

```
C:\Users\R>docker images
REPOSITORY                  TAG       IMAGE ID       CREATED          SIZE
gob                         latest    87e9c5a8e318   15 minutes ago   778MB
godocker                    latest    776a7fbe4421   4 hours ago      6.92MB
docker101tutorial           latest    a98339dd5ce3   14 hours ago     47MB
rezarh/docker101tutorial    latest    a98339dd5ce3   14 hours ago     47MB
golang                      1.20      c48137eaf961   3 days ago       778MB
alpine/git                  latest    22d84a66cda4   3 months ago     43.6MB
golang                      1.11.4    dd46c1256829   4 years ago      775MB

C:\Users\R>_
```

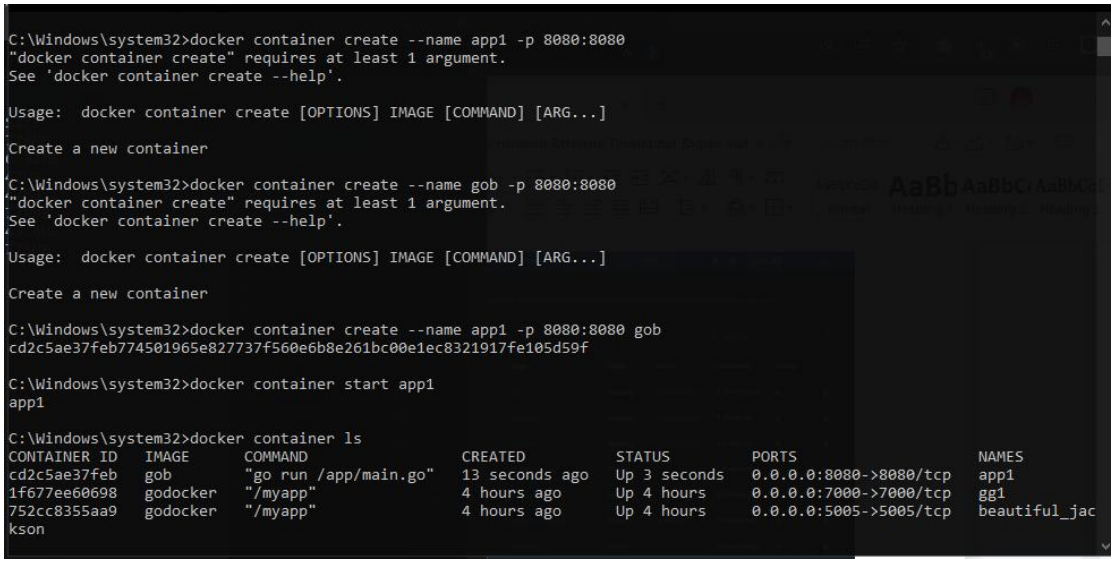
6. Deploy in your local machine



7. Try Docker Compose to run go app + mysql (optional)



8. Try to Deploy in the Cloud (optional)



```
C:\Windows\system32>docker container create --name app1 -p 8080:8080
"docker container create" requires at least 1 argument.
See 'docker container create --help'.

Usage:  docker container create [OPTIONS] IMAGE [COMMAND] [ARG...]

Create a new container

C:\Windows\system32>docker container create --name gob -p 8080:8080
"docker container create" requires at least 1 argument.
See 'docker container create --help'.

Usage:  docker container create [OPTIONS] IMAGE [COMMAND] [ARG...]

Create a new container

C:\Windows\system32>docker container create --name app1 -p 8080:8080 gob
cd2c5ae37feb774501965e827737f560e6b8e261bc00e1ec8321917fe105d59f

C:\Windows\system32>docker container start app1
app1

C:\Windows\system32>docker container ls
CONTAINER ID   IMAGE      COMMAND                  CREATED          STATUS         PORTS                    NAMES
cd2c5ae37feb   gob        "go run /app/main.go"   13 seconds ago   Up 3 seconds   0.0.0.0:8080->8080/tcp   app1
1f677ee60698   godocker   "/myapp"                 4 hours ago      Up 4 hours     0.0.0.0:7000->7000/tcp   gg1
752cc8355aa9   godocker   "/myapp"                 4 hours ago      Up 4 hours     0.0.0.0:5005->5005/tcp   beautiful_jac
kson
```