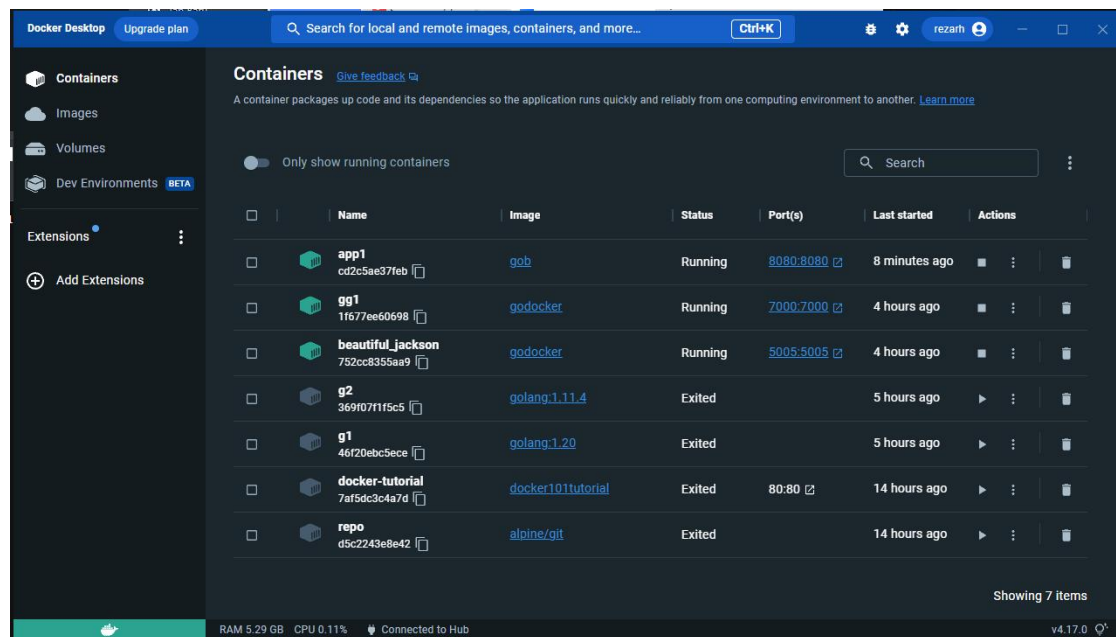


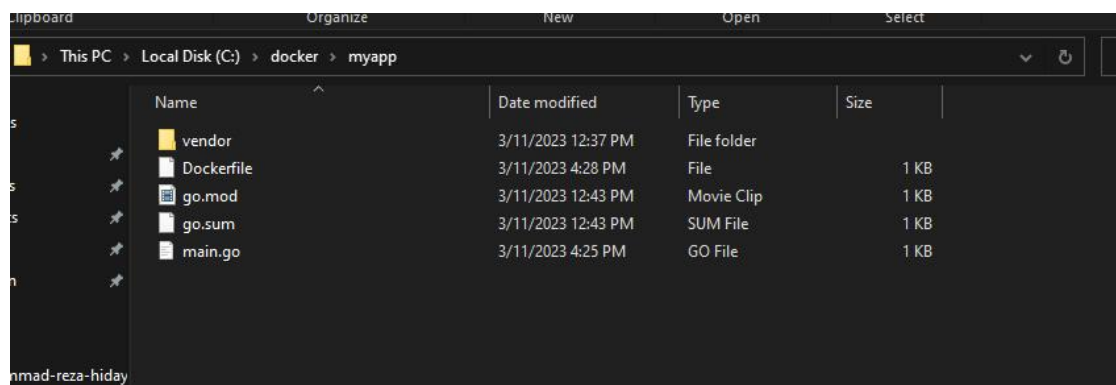
# Tugas

## 1. Install docker & docker compose

```
C:\Windows\system32>pip install -U docker-compose
Collecting docker-compose
  Downloading docker_compose-1.29.2-py2.py3-none-any.whl (114 kB)
    114.8/114.8 kB 3.4 MB/s eta 0:00:00
Collecting PyYAML<6,>=3.10
  Downloading PyYAML-5.4.1.tar.gz (175 kB)
    175.1/175.1 kB 2.1 MB/s eta 0:00:00
Installing build dependencies ... done
Getting requirements to build wheel ... done
Preparing metadata (pyproject.toml) ... done
Collecting distro<2,>=1.5.0
  Downloading distro-1.8.0-py3-none-any.whl (20 kB)
Collecting docker[ssh]>=5
  Downloading docker-6.0.1-py3-none-any.whl (147 kB)
    147.5/147.5 kB 4.4 MB/s eta 0:00:00
Collecting dockerpty<1,>=0.4.1
  Downloading dockerpty-0.4.1.tar.gz (13 kB)
  Preparing metadata (setup.py) ... done
Collecting docopt<1,>=0.6.1
  Downloading docopt-0.6.2.tar.gz (25 kB)
  Preparing metadata (setup.py) ... done
```



## 2. Create dockerfile.



```
main.go x go.mod 1 Dockerfile X
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 x 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

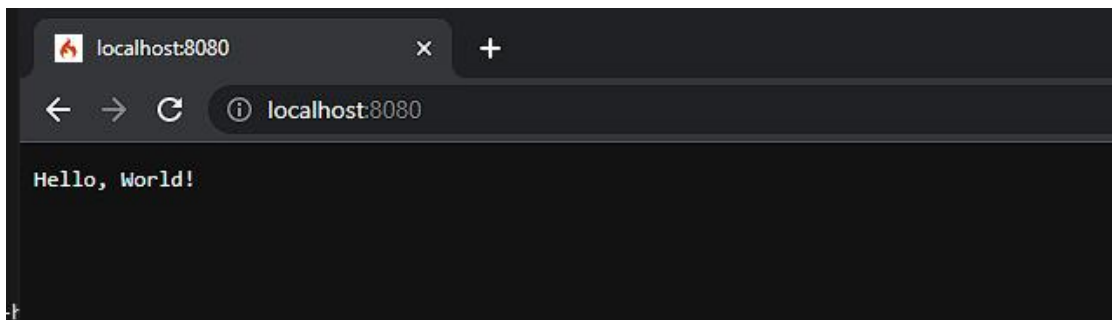
```
C:\Windows\system32>docker container create --name app1 -p 8080:8080 gob
cd2c5ae37feb774501965e827737f560e6b8e261bc00e1ec8321917fe105d59f
C:\Windows\system32>docker container start app1
app1
C:\Windows\system32>docker container ls
CONTAINER ID   IMAGE     COMMAND                  CREATED        STATUS        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

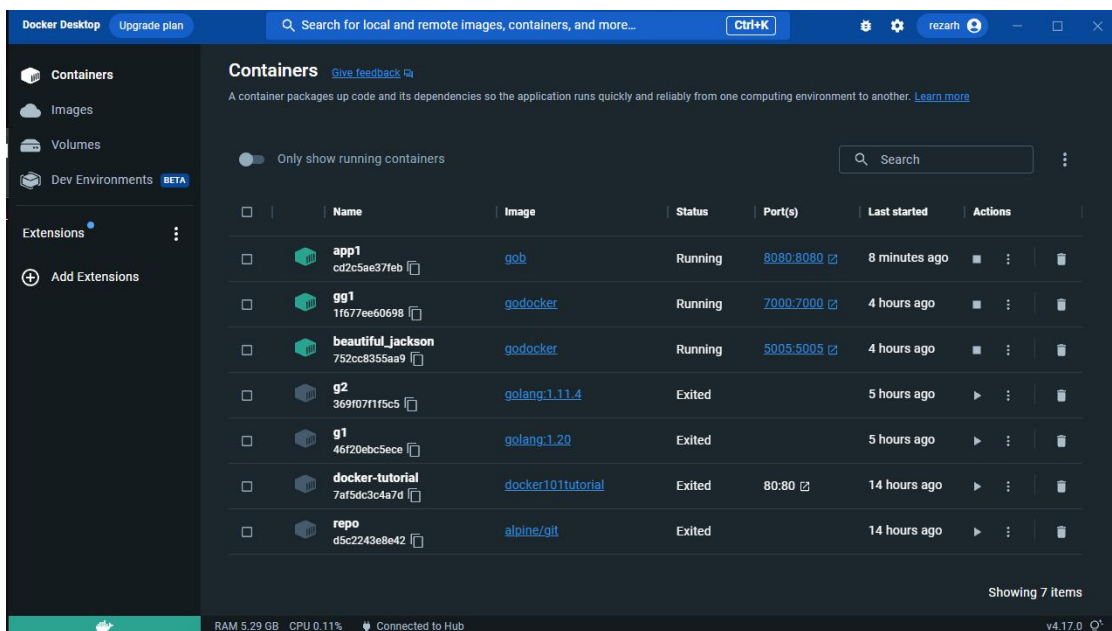
```
C:\Users\R>docker images
REPOSITORY          TAG                 IMAGE ID            CREATED             SIZE
gob                  latest             87e9c5a8e318       15 minutes ago     778MB
godocker            latest             776a7fbe4421       4 hours ago        6.92MB
docker101tutorial   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_jackson
```