# ***Bài 1:***

**Tạo file docker-compose.yml**

version: '3.8'

services:

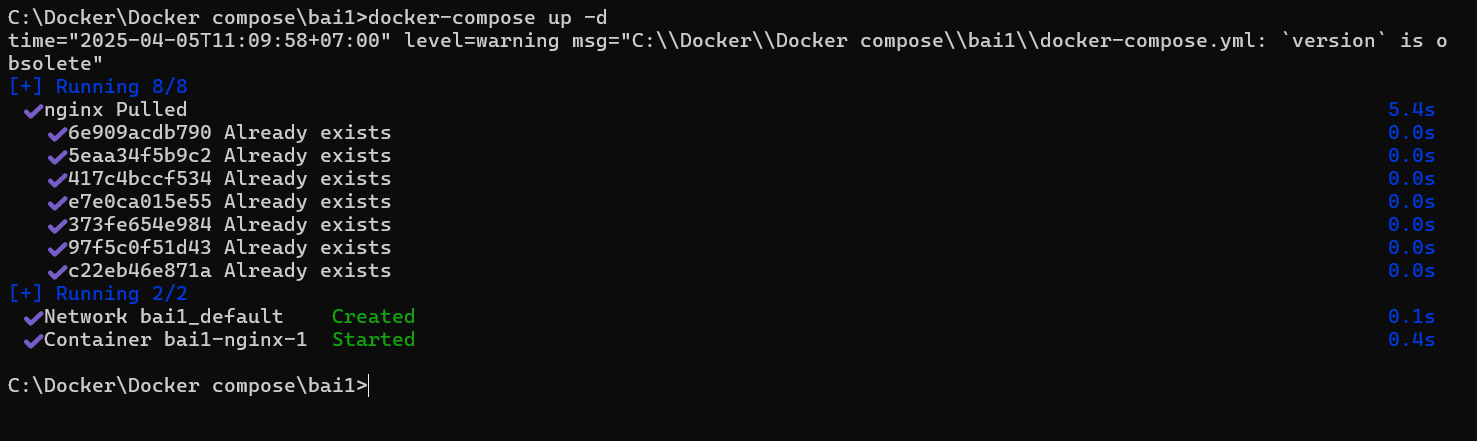
nginx:

image: nginx

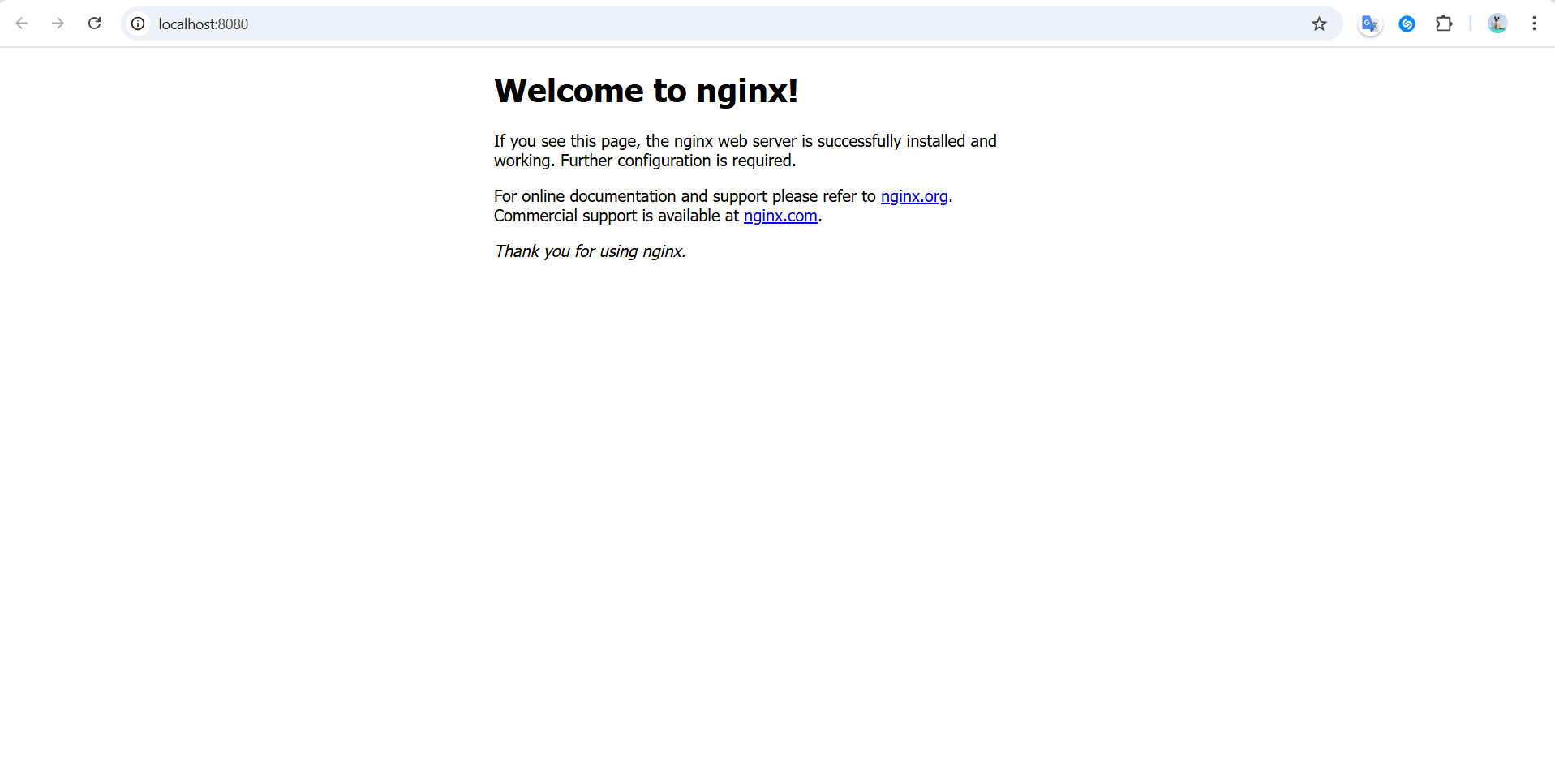
ports:

- "8080:80"

**Thực hiện**



Kết quả



# ***Bài 2:***

**Tạo file docker-compose.yml**

version: '3'

services:

mysql:

image: mysql:8.0

command: --default-authentication-plugin=mysql\_native\_password

environment:

MYSQL\_DATABASE: mydb

MYSQL\_USER: user

MYSQL\_PASSWORD: password

MYSQL\_ROOT\_PASSWORD: root

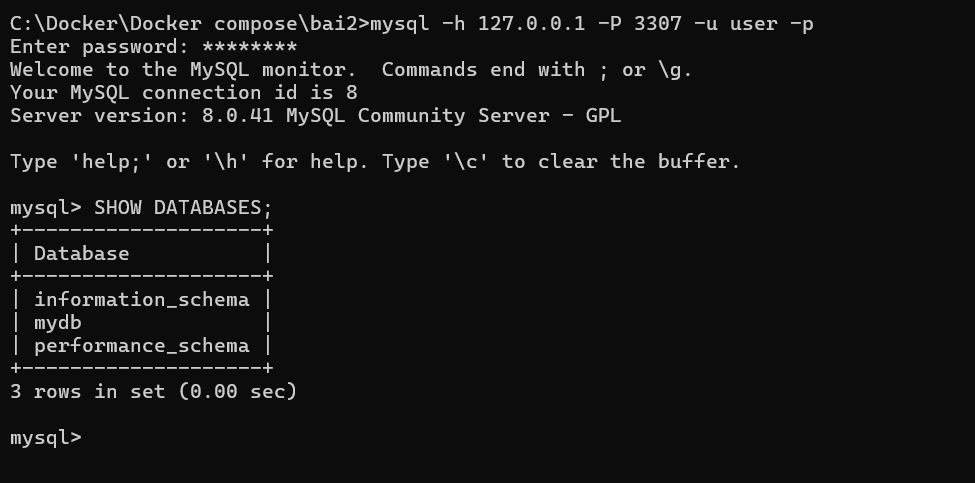
ports:

- "3307:3306"

**Thực hiện**

******

**Kết quả (Nhập password)**

****

# ***Bài 3:***

**Tạo file docker-compose.yml**

version: '3'

services:

mysql:

image: mysql:8.0

environment:

MYSQL\_ROOT\_PASSWORD: root

MYSQL\_DATABASE: mydb

MYSQL\_USER: user

MYSQL\_PASSWORD: password

ports:

- "3306:3306"

phpmyadmin:

image: phpmyadmin/phpmyadmin

environment:

PMA\_HOST: mysql

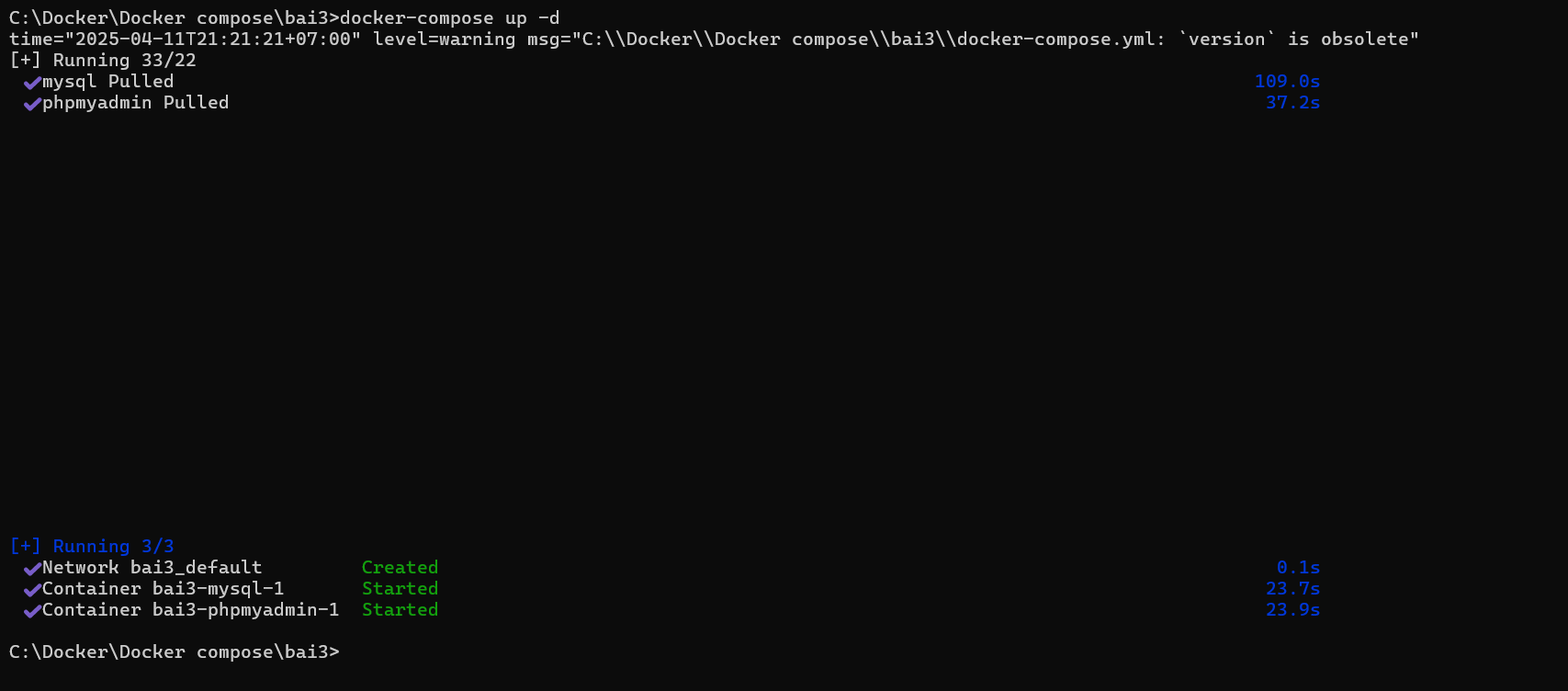
PMA\_USER: user

PMA\_PASSWORD: password

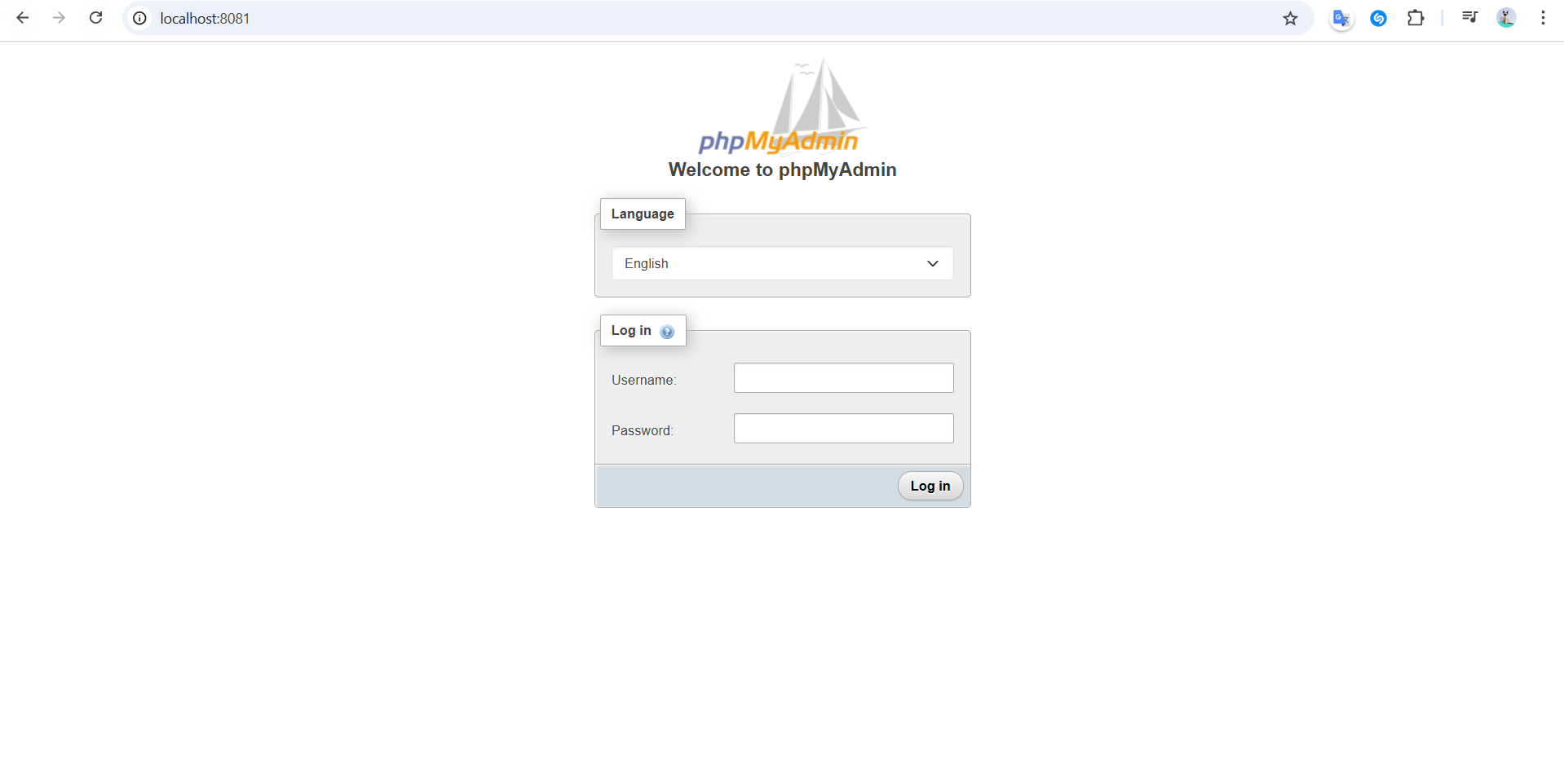
ports:

- "8081:80"

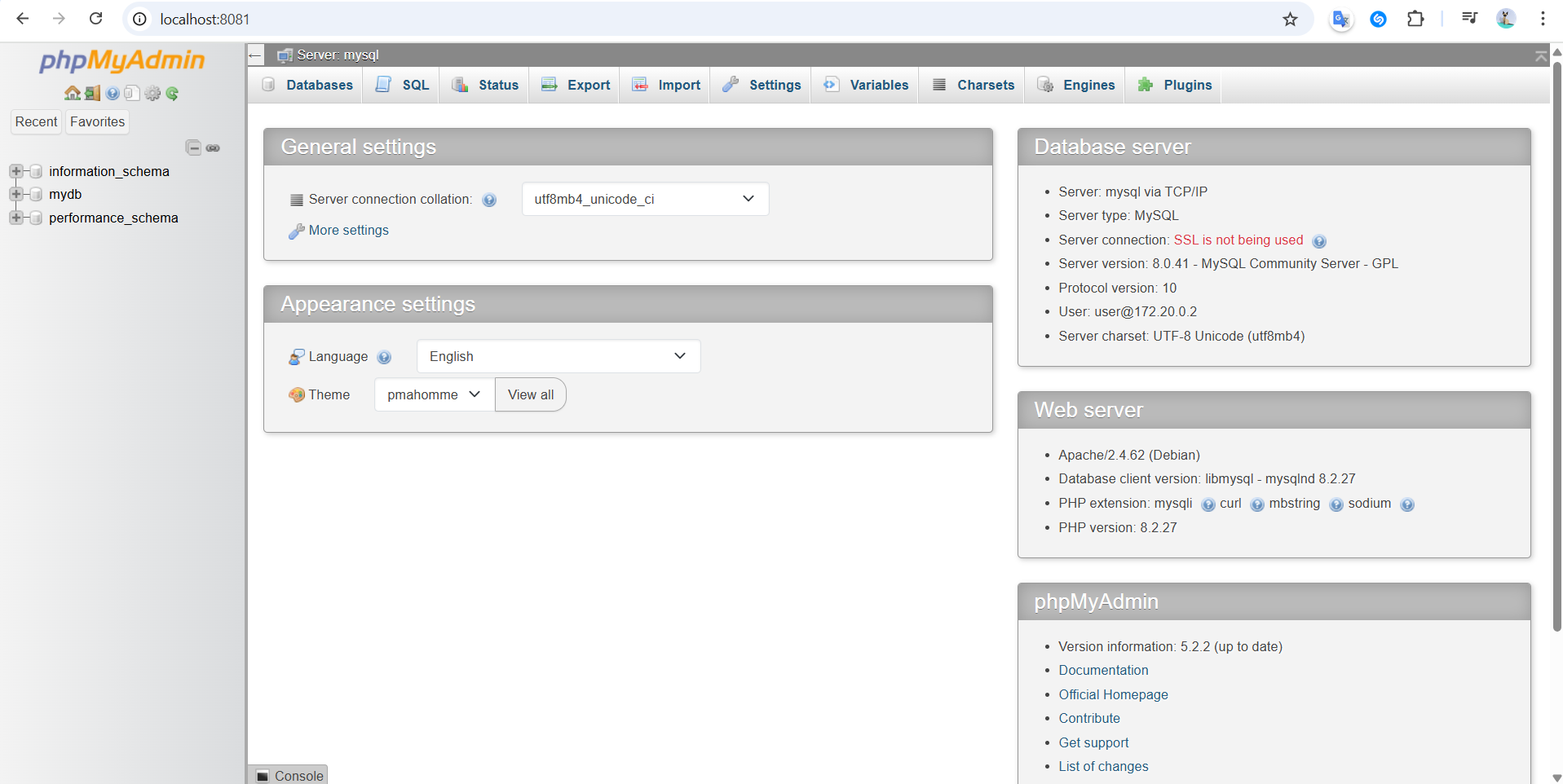
Thực hiện



Kết quả

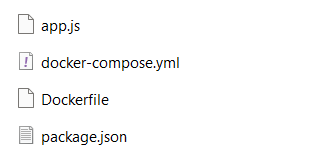


(Nhập user & password)



# ***Bài 4:***

***Tạo các file***

******

**Docker-compose.yml**

version: '3'

services:

node-app:

build: .

ports:

- "3000:3000"

**Dockerfile**

FROM node:16

WORKDIR /app

COPY package\*.json ./

RUN npm install

COPY . .

CMD ["node", "app.js"]

**App.js**

const express = require('express');

const app = express();

app.get('/', (req, res) => res.send('Hello from Node.js'));

app.listen(3000, () => console.log('Server running on port 3000'));

**package.json**

{

"name": "node-docker",

"version": "1.0.0",

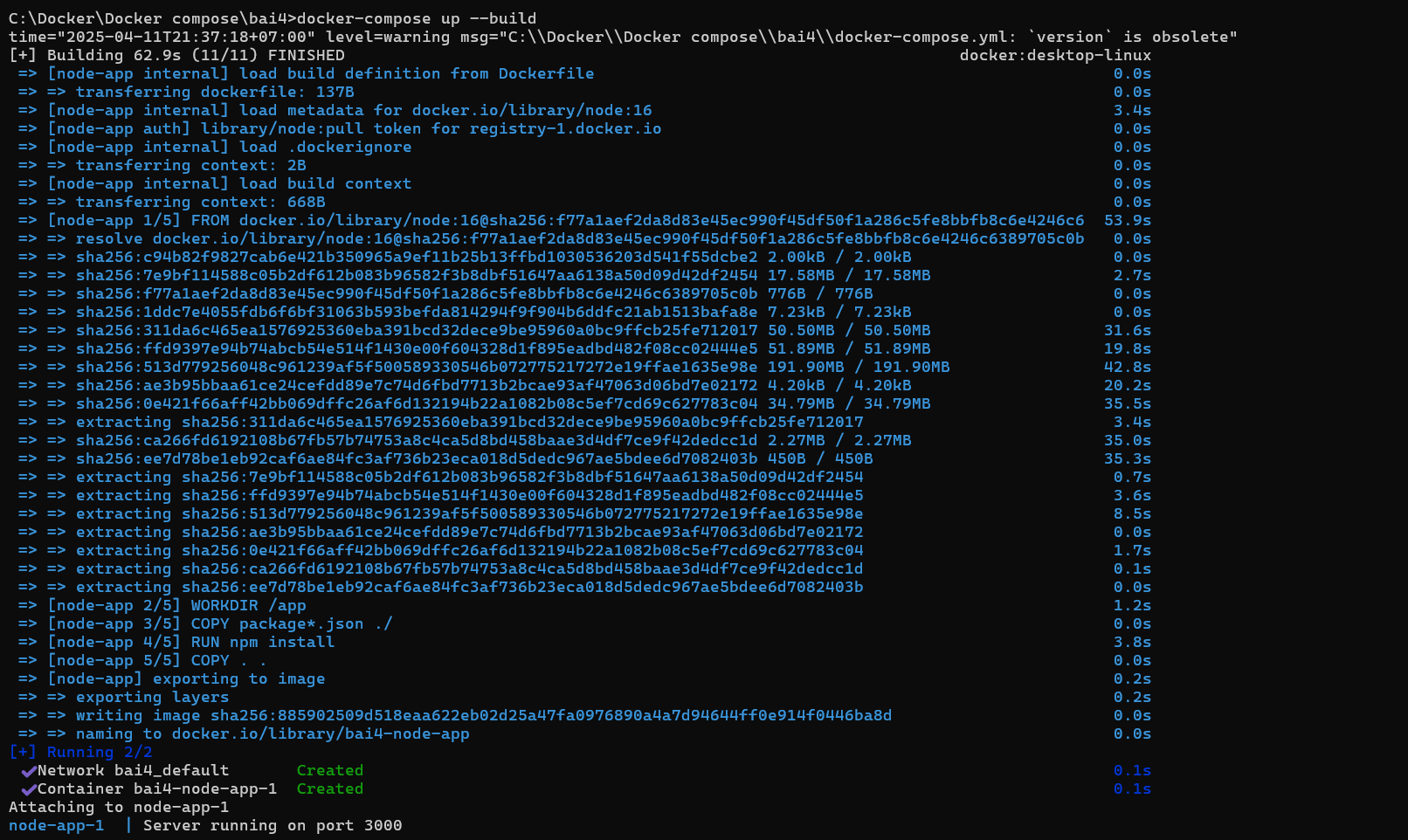
"main": "app.js",

"dependencies": {

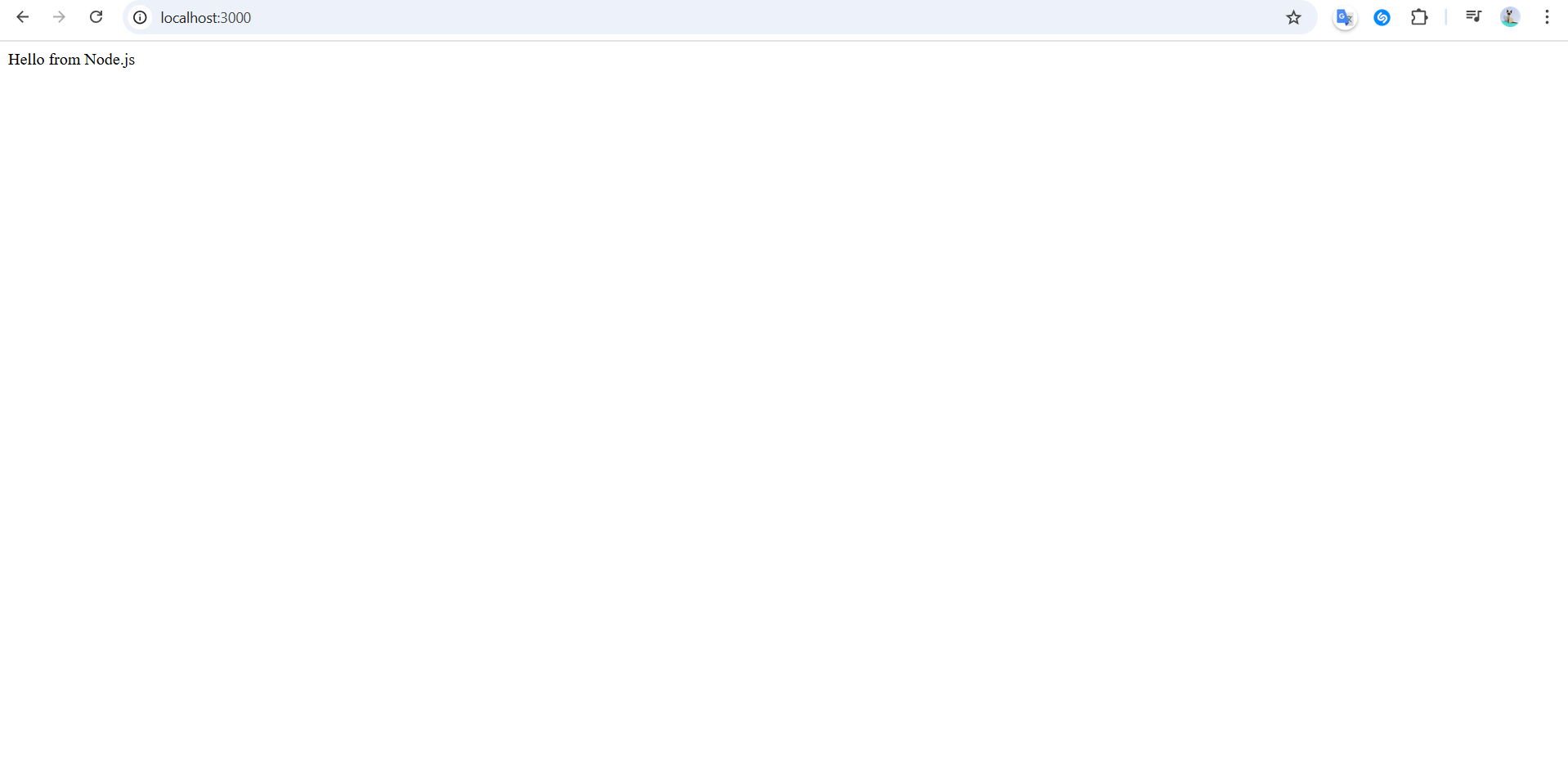
"express": "^4.18.2"

}

}  
**Thực hiện**

****

**Kết quả**



# ***Bài 5:***

**Tạo file docker-compose.yml**

version: '3'

services:

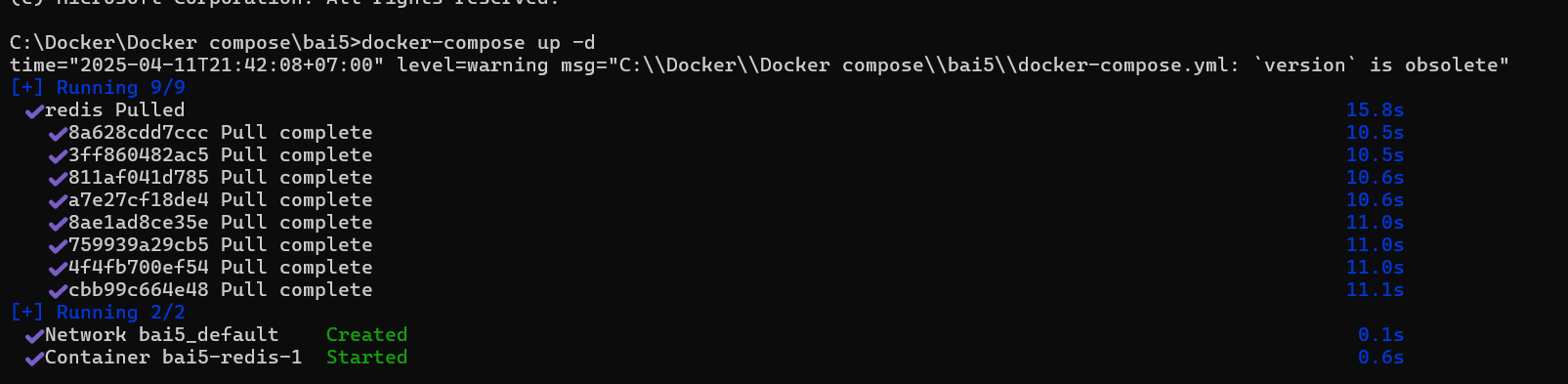
redis:

image: redis

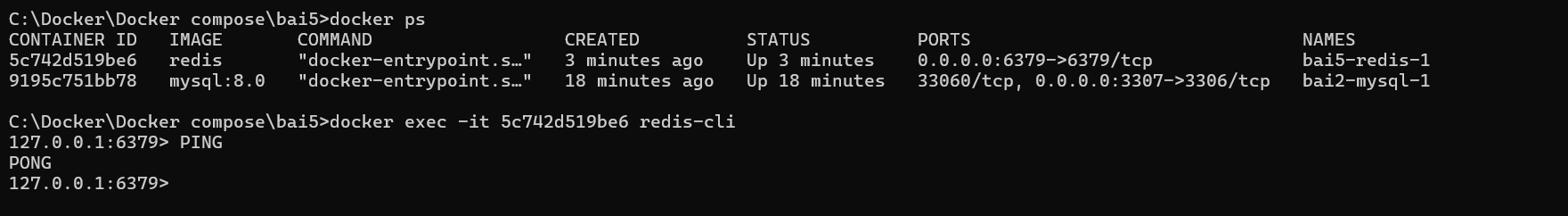
ports:

- "6379:6379"

**Thực hiện**

****

**Kết quả**

****

# ***Bài 6:***

**Tạo file docker-compose.yml**

version: '3'

services:

db:

image: mysql:5.7

environment:

MYSQL\_DATABASE: wordpress

MYSQL\_USER: user

MYSQL\_PASSWORD: password

MYSQL\_ROOT\_PASSWORD: root

volumes:

- db\_data:/var/lib/mysql

wordpress:

image: wordpress:latest

ports:

- "8080:80"

environment:

WORDPRESS\_DB\_HOST: db:3306

WORDPRESS\_DB\_USER: user

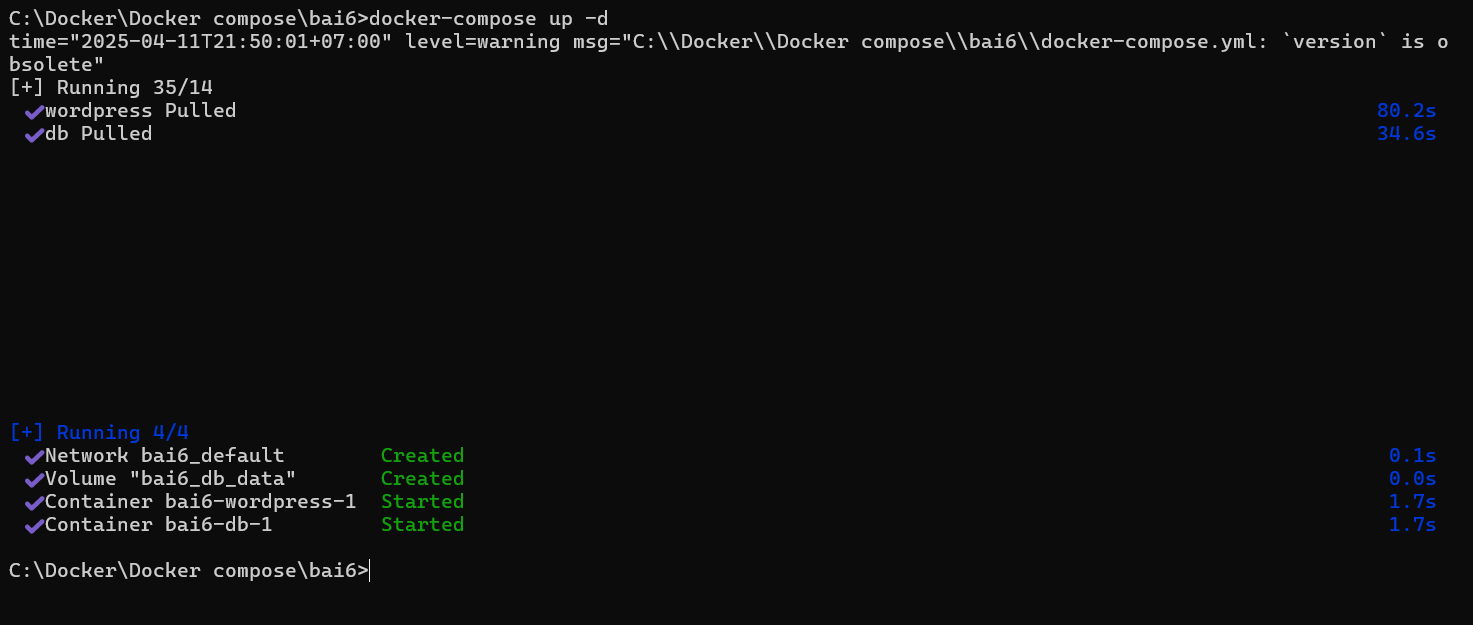
WORDPRESS\_DB\_PASSWORD: password

WORDPRESS\_DB\_NAME: wordpress

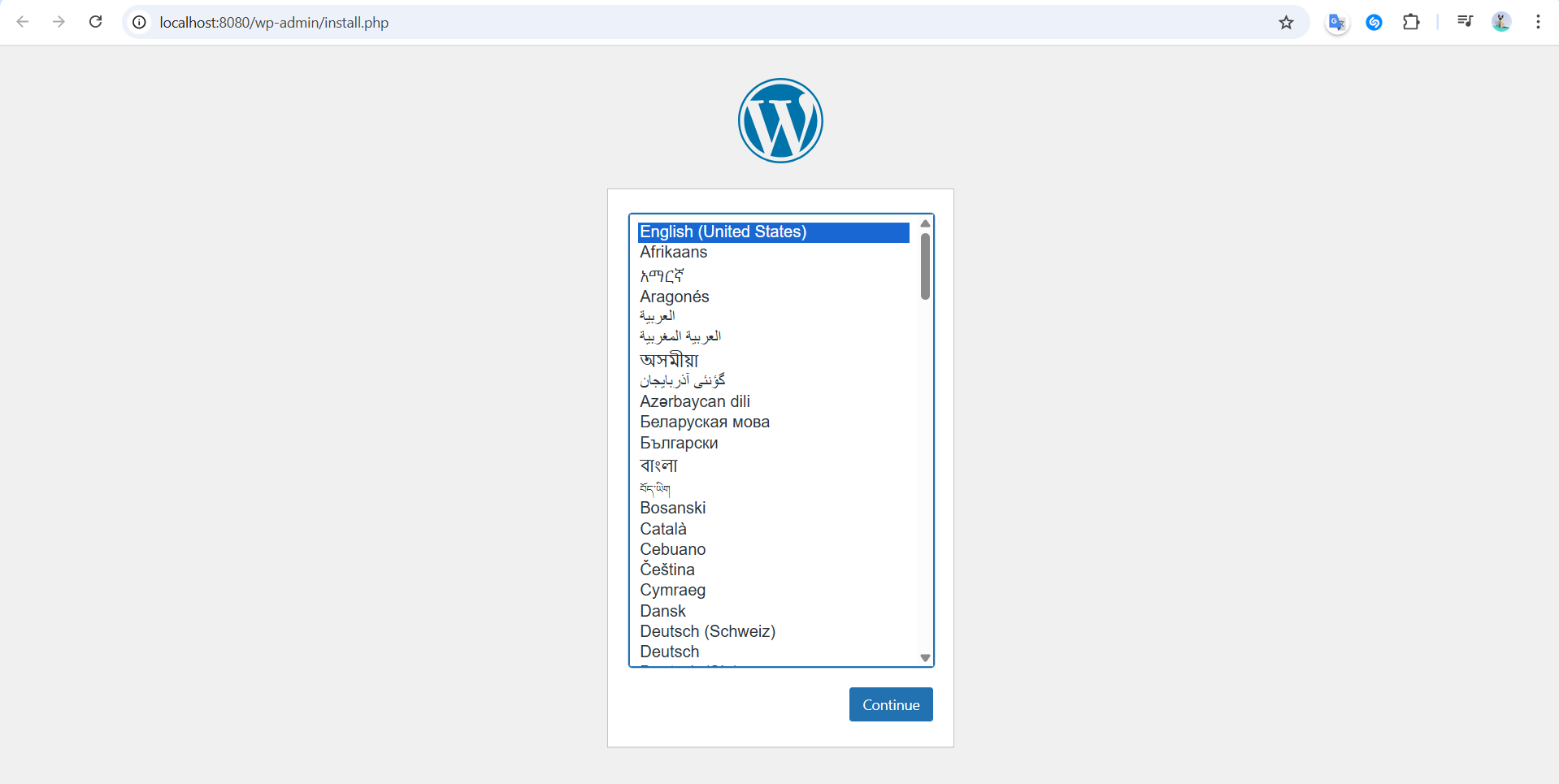
volumes:

db\_data:

**Thực hiện**

****

**Kết quả**

******

# ***Bài 7:***

**Tạo file docker-compose.yml**

version: '3'

services:

mongo:

image: mongo

ports:

- "27017:27017"

command: mongod --noauth # Tắt xác thực MongoDB

mongo-express:

image: mongo-express

ports:

- "8082:8081"

environment:

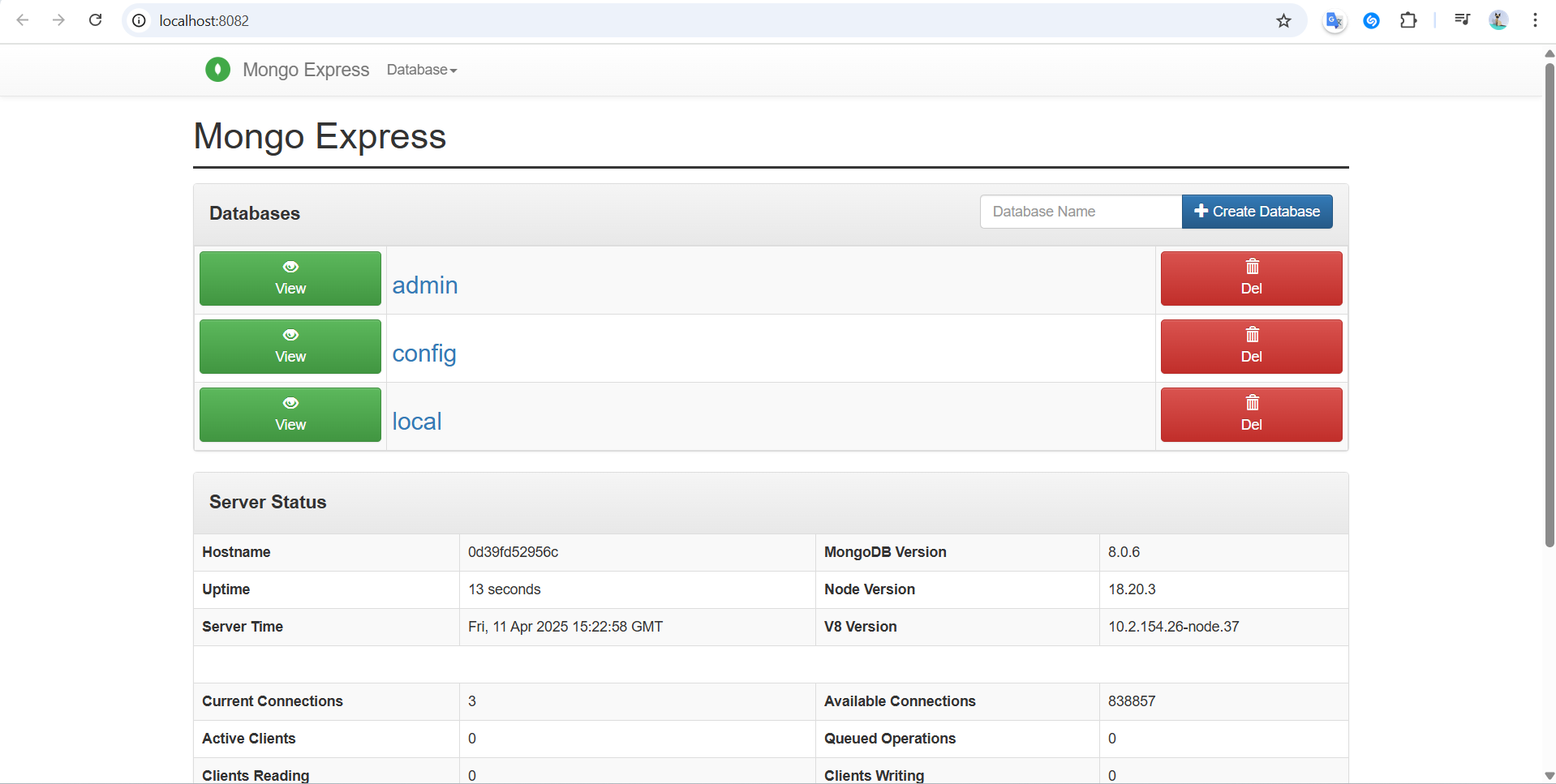
ME\_CONFIG\_MONGODB\_SERVER: mongo

ME\_CONFIG\_BASICAUTH: "false" # Tắt xác thực UI mongo-express

**Thực hiện**

****

**Kết quả**

****

# ***Bài 8:***

**Tạo file docker-compose.yml**

version: '3.8'

services:

app:

build: ./app

ports:

- "3000:3000"

depends\_on:

- mysql

mysql:

image: mysql:8.0

command: --default-authentication-plugin=mysql\_native\_password

environment:

MYSQL\_DATABASE: mydb

MYSQL\_USER: user

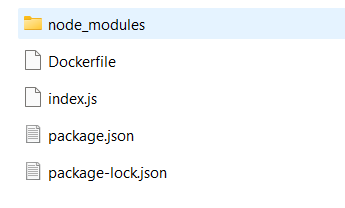
MYSQL\_PASSWORD: password

MYSQL\_ROOT\_PASSWORD: root

ports:

- "3306:3306"

**Tạo một app Node.js**



*Index.js*

const express = require('express');

const mysql = require('mysql2');

const app = express();

const port = 3000;

const connection = mysql.createConnection({

host: 'mysql', // tên service trong docker-compose

user: 'user',

password: 'password',

database: 'mydb'

});

connection.connect(err => {

if (err) {

console.error('MySQL connect error:', err);

return;

}

console.log('Connected to MySQL');

});

app.get('/', (req, res) => {

res.send('✅ Node.js connected to MySQL via Docker Compose!');

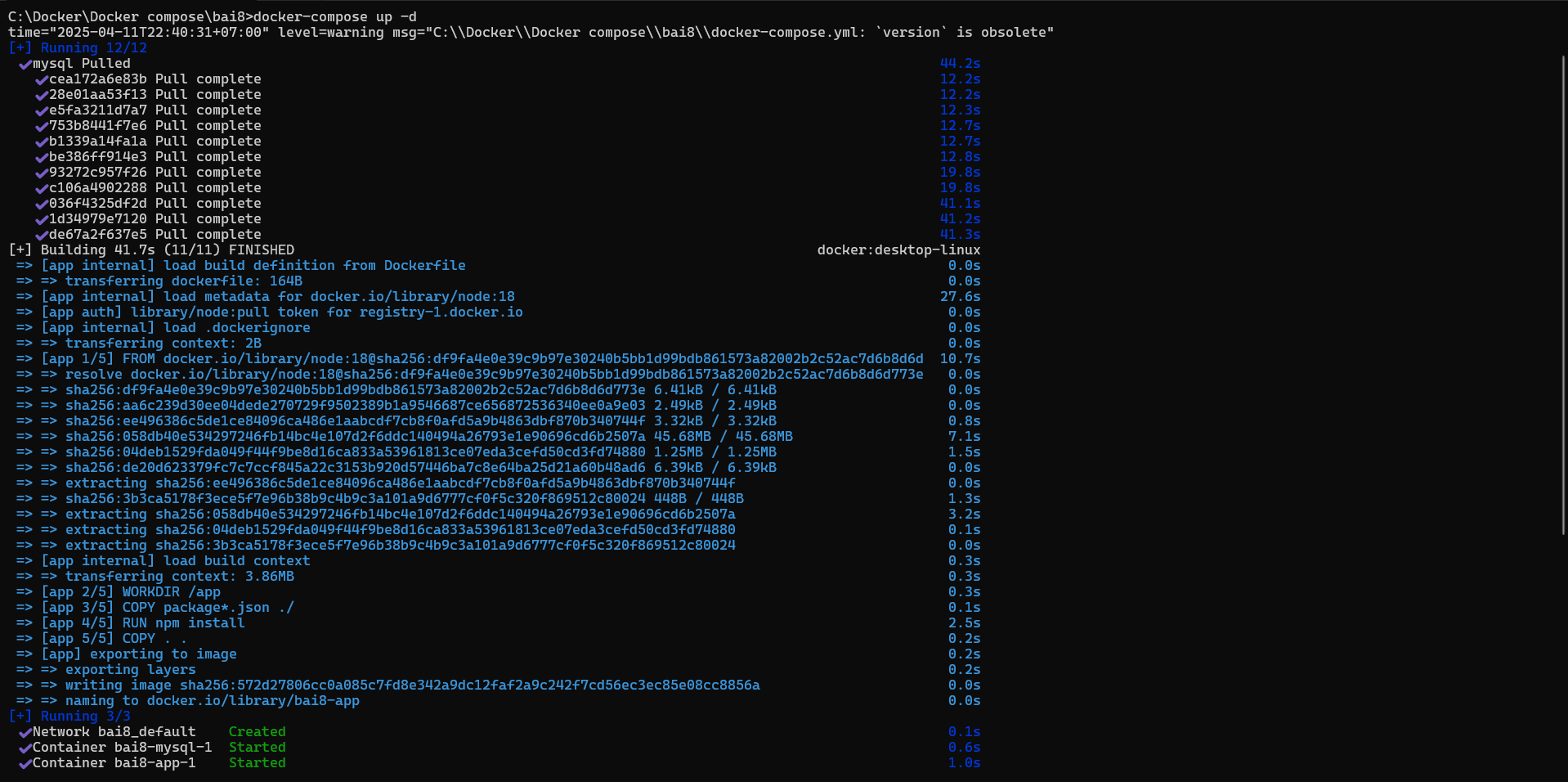
});

app.listen(port, () => {

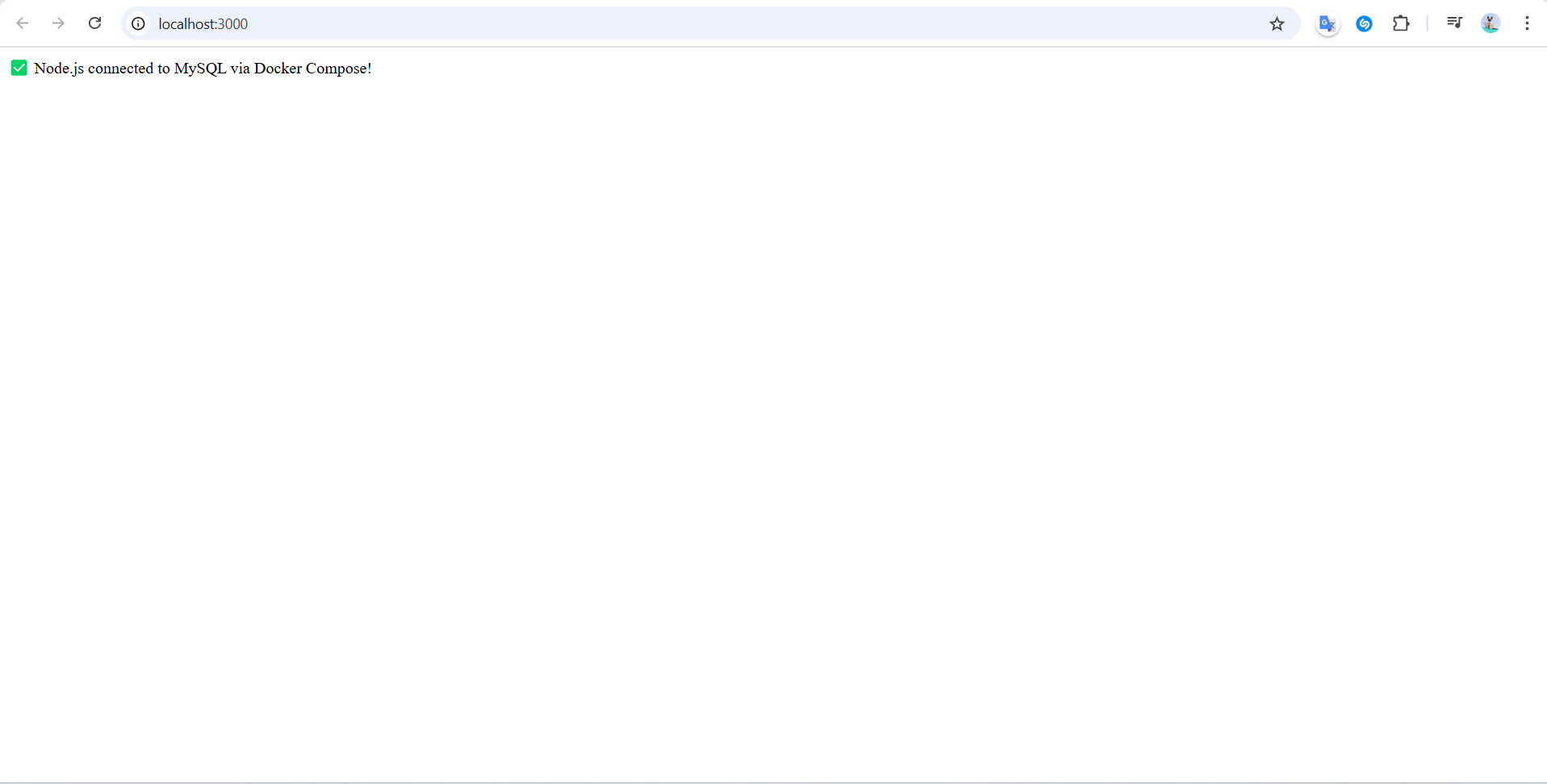
console.log(`App listening at http://localhost:${port}`);

});

**Thực hiện**



**Kết quả**

****

# ***Bài 9:***

**Tạo file docker-compose.yml**

version: '3.8'

services:

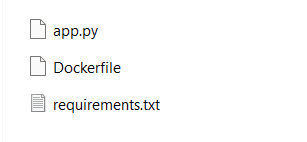
flask-app:

build: ./app

ports:

- "5000:5000"

**Tạo app**

****

*App.py*

from flask import Flask

app = Flask(\_\_name\_\_)

@app.route('/')

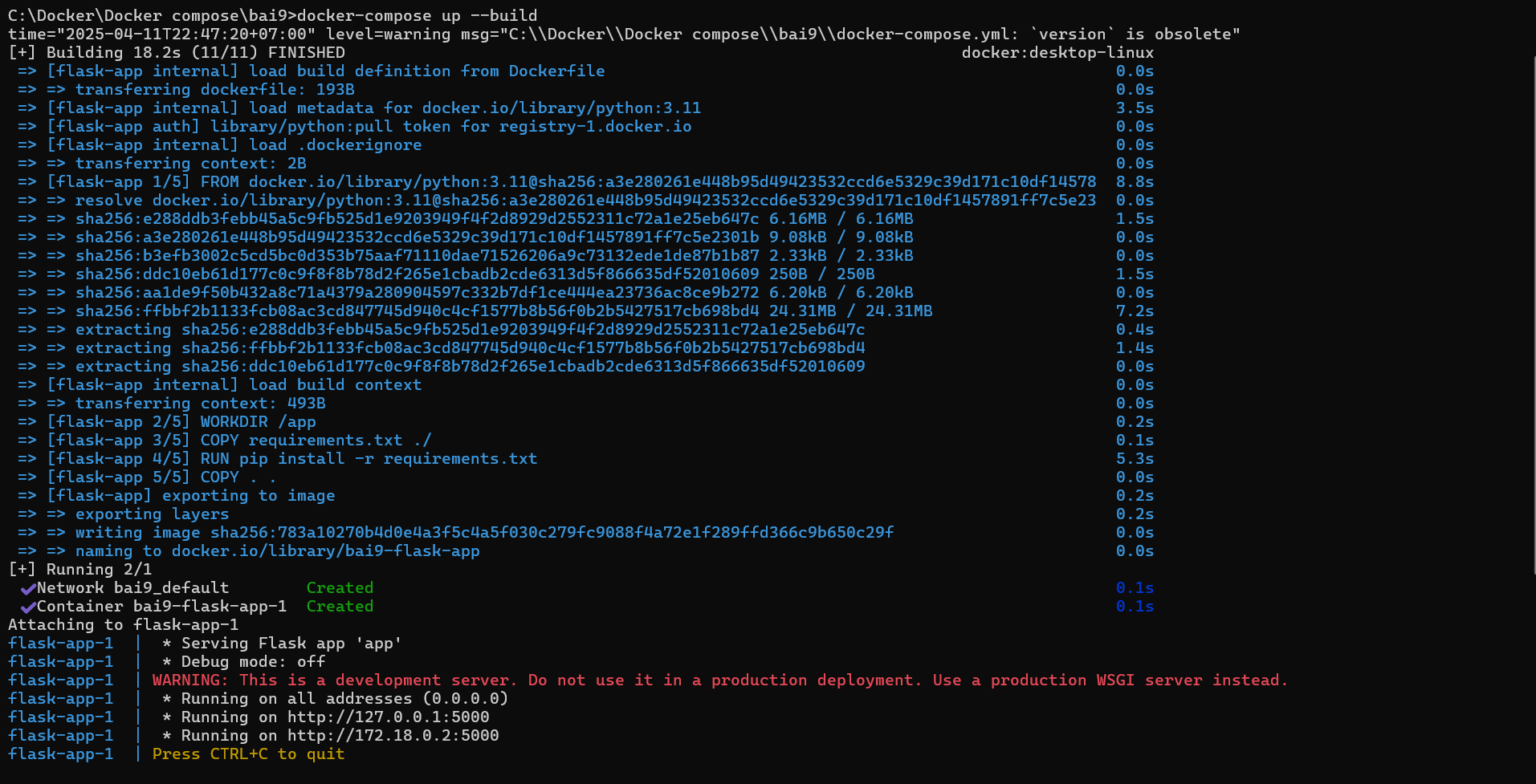
def hello():

return '✅ Hello from Flask inside Docker Compose!'

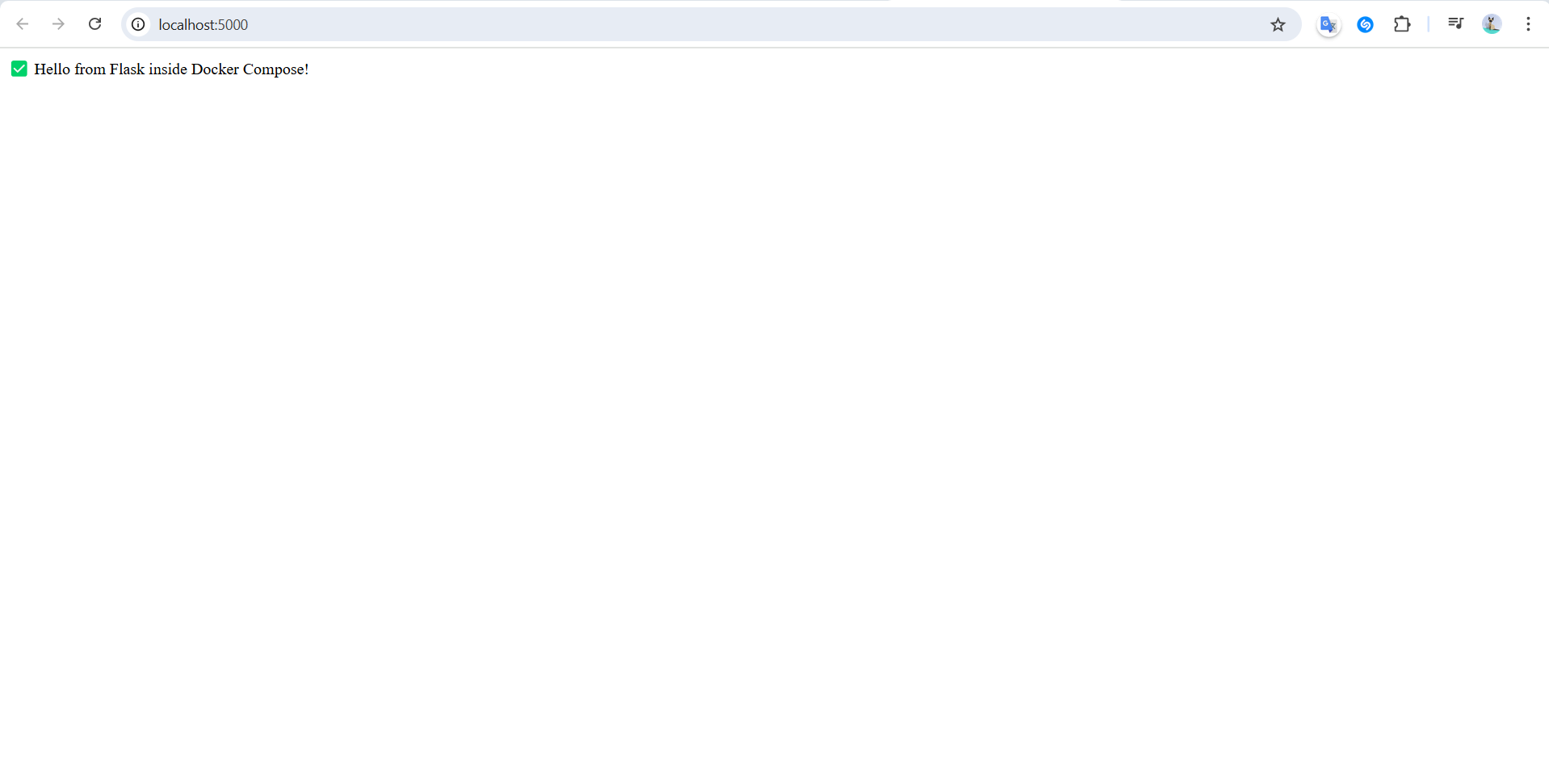
if \_\_name\_\_ == '\_\_main\_\_':

app.run(host='0.0.0.0', port=5000)

**Thực hiện**

****

**Kết quả**

****

# ***Bài 10:***

**Tạo file docker-compose.yml**

services:

mysql:

image: mysql:8.0

ports:

- "3306:3306"

volumes:

- mysql\_data:/var/lib/mysql

environment:

MYSQL\_ROOT\_PASSWORD: root

volumes:

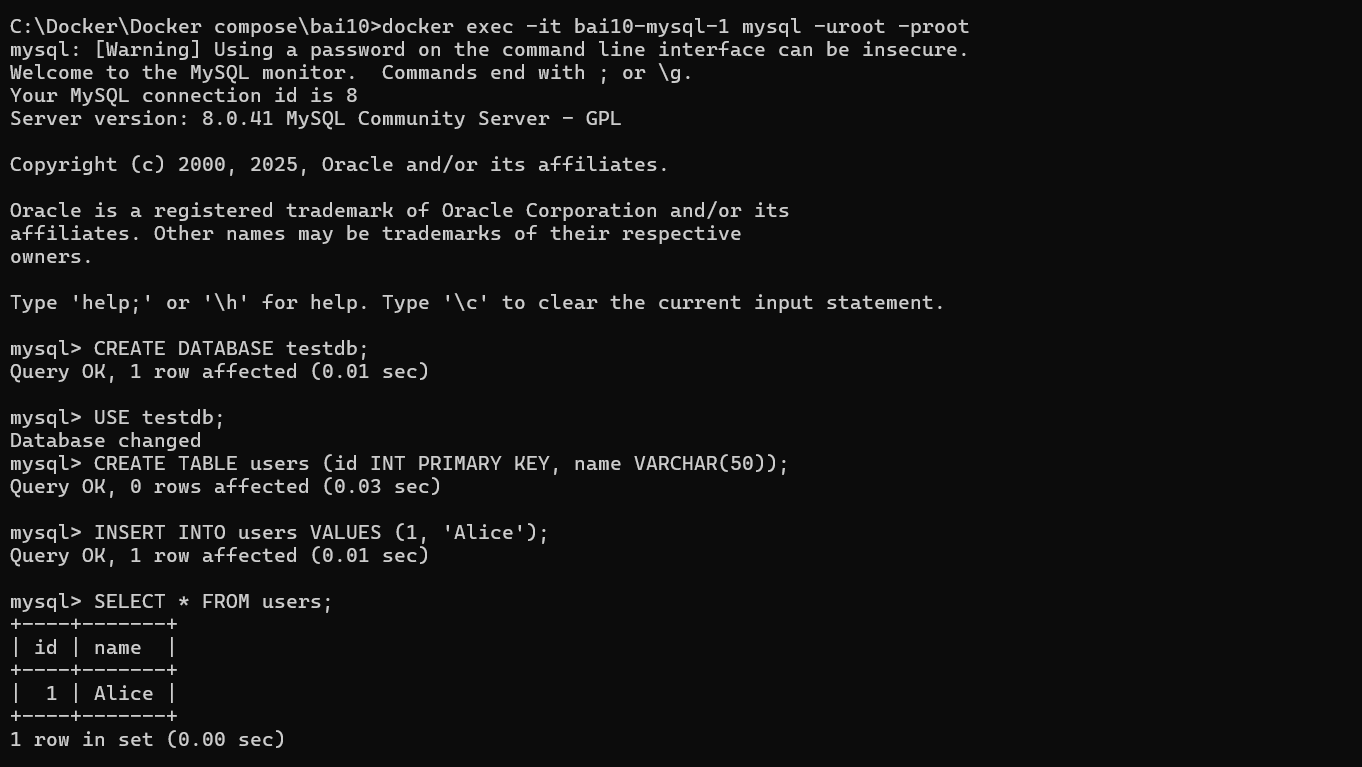
mysql\_data:

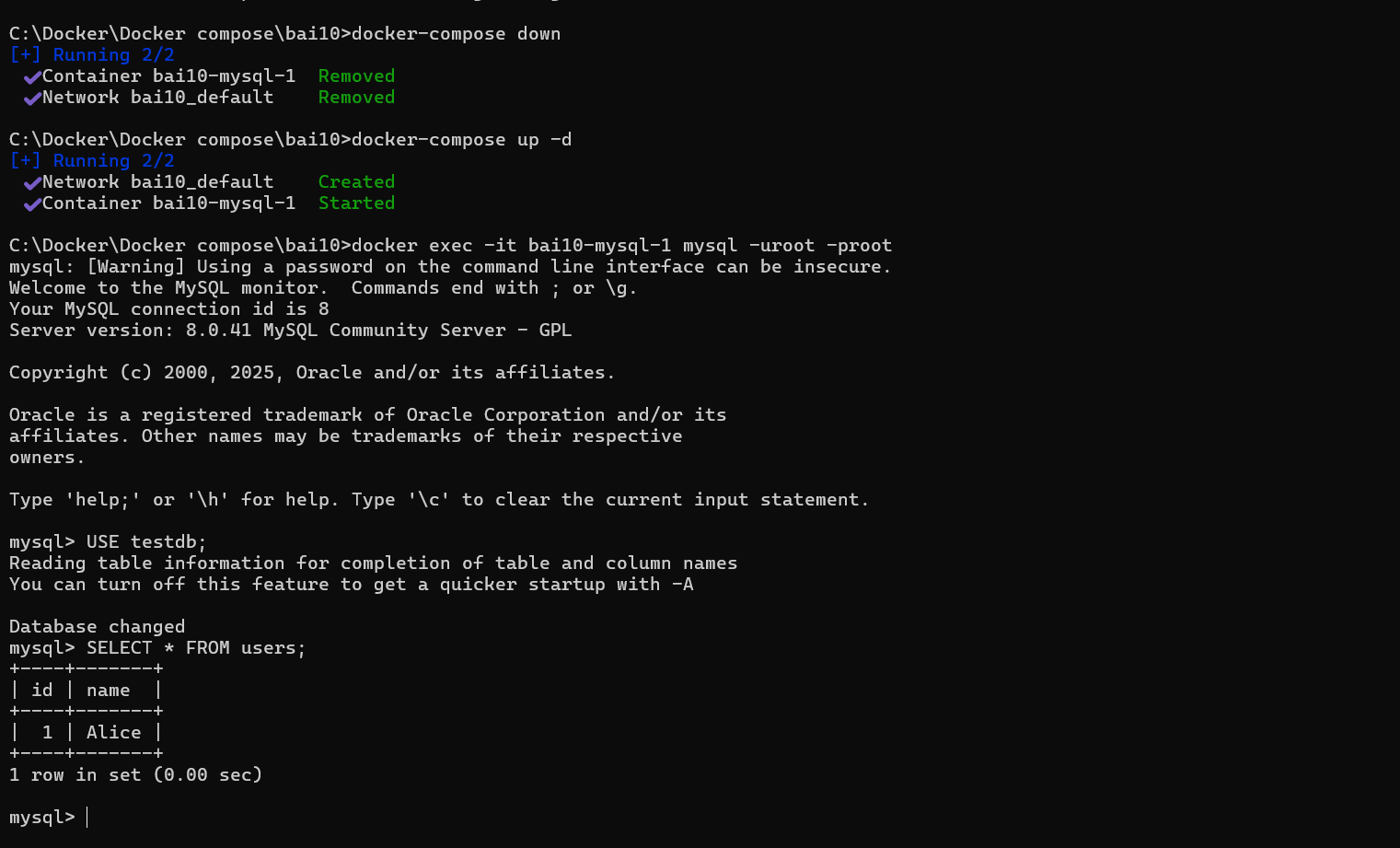
**Thực hiện**

****

**Kết quả**

*Đầu tiên tạo users có 1 giá trị là 1 Alice*

**  
Sau đó xóa (không dùng -v vì sẽ xóa volumn). Kết quá nhận được là vẫn còn 1 Alice**

****