

Lab Exercise 6- Docker-Compose file

Objective:

Set up a WordPress environment using Docker Compose, including a MySQL database as the backend.

Prerequisites:

- Docker and Docker Compose installed on your system.

Step 1: Create a docker-compose.yml File

1. In the project directory, create a file named docker-compose.yml.
2. Add the following content to docker-compose.yml:

docker-compose.yml

```
version: '3.8'

services:
  wordpress:
    image: wordpress:latest
    ports:
      - "8002:80"
    environment:
      WORDPRESS_DB_HOST: db:3306
      WORDPRESS_DB_USER: wp_user
      WORDPRESS_DB_PASSWORD: wp_pass
      WORDPRESS_DB_NAME: wp_database
    depends_on:
      - db

  db:
    image: mysql:latest
    environment:
      MYSQL_ROOT_PASSWORD: root_password
      MYSQL_DATABASE: wp_database
      MYSQL_USER: wp_user
      MYSQL_PASSWORD: wp_pass
    volumes:
      - db_data:/var/lib/mysql

volumes:
  db_data:
```

Step 2: Start the Containers

1. Run the following command to start the containers:

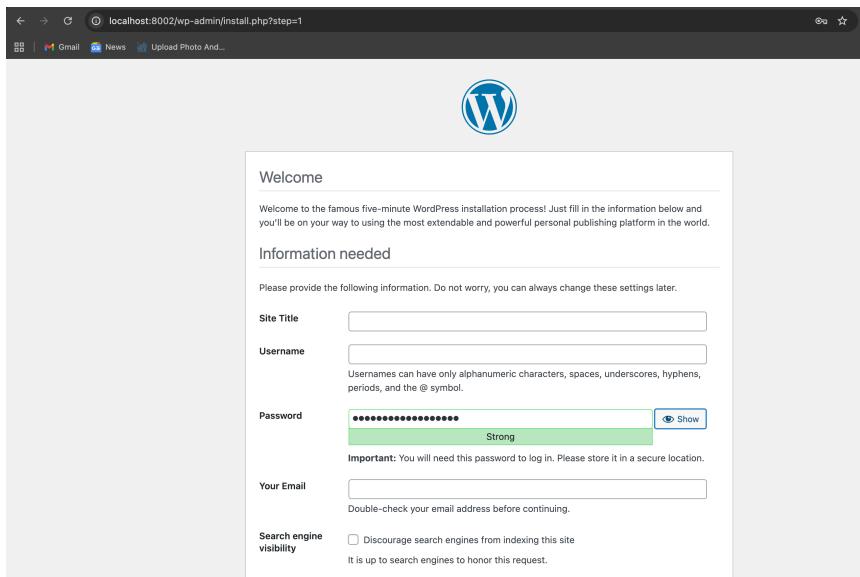
```
docker-compose up -d
```

2. Docker Compose will download the necessary images (WordPress and MySQL) and start both services.

```
mohdanas@Mohds-MacBook-Air Desktop % docker-compose up -d
[+]
WARN[0000] /Users/mohdanas/Desktop/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 35/35
✓ db Pulled
✓ 8aff3675e9cf Pull complete 39.9s
✓ 36a6c63ed289 Pull complete 1.1s
✓ 393f10befa10 Pull complete 1.4s
✓ 9490d79385bd Pull complete 0.8s
✓ 7377787c0d94 Pull complete 20.3s
✓ c2957f2e7085 Pull complete 20.9s
✓ f7384d8630fb Pull complete 1.4s
✓ 17d0c5c262d5 Pull complete 1.4s
✓ d59ba4d7fa27 Pull complete 2.1s
✓ 190e5ea9eb58 Pull complete 3.9s
✓ 5bc14b354a7a Pull complete 34.7s
✓ wordpress Pulled
✓ 5bc14b354a7a Pull complete 32.3s
✓ da89c9aad054 Pull complete 0.7s
✓ ba090e6166a5 Pull complete 1.4s
✓ b4e9544b350e Pull complete 25.3s
✓ a19ad20d8025 Pull complete 1.3s
✓ ab54b9a0ad04 Pull complete 25.4s
✓ 4dfce9bf1b5 Pull complete 1.4s
✓ f3b6c1574c71 Pull complete 1.1s
✓ cc79507d0035 Pull complete 6.5s
✓ ad3a163e49c9 Pull complete 1.4s
✓ 5084a984c248 Pull complete 25.6s
✓ dccf3ade3413 Pull complete 1.6s
✓ a4543249b36f Pull complete 1.5s
✓ 3bd8f8e018a5 Pull complete 1.8s
✓ 4f4fb700ef54 Pull complete 0.0s
✓ 1c0f98ab1f81 Pull complete 26.4s
✓ 881309a389a7 Pull complete 26.7s
✓ 3effbcaba5d9 Pull complete 27.0s
✓ 496f9c1a3571 Pull complete 1.8s
✓ 64fa3d93cbcd Pull complete 1.4s
✓ 1814a1858ca2 Pull complete 1.8s
✓ c1f2e8301fa9 Pull complete 1.8s
✓ 7ff13c5082d4 Pull complete 1.7s
[+] Running 4/4
✓ Network desktop_default      Created 0.0s
✓ Volume "desktop_db_data"     Created 0.0s
✓ Container desktop-db-1       Started 0.8s
✓ Container desktop-wordpress-1 Started 0.6s
```

Step 4: Access WordPress

1. Open your web browser and go to **http://localhost:8002**
2. Follow the WordPress installation steps to set up your site.



Step 5: Stop and Remove Containers

To stop the containers and remove the associated resources, run:

```
docker-compose down
```

```
[mohdanas@Mohds-MacBook-Air Desktop % docker-compose down ]  
WARN[0000] /Users/mohdanas/Desktop/docker-compose.yml: the attribute `version` is obsolete, it will be  
ignored, please remove it to avoid potential confusion  
[+] Running 3/3  
✓ Container desktop-wordpress-1  Removed 1.3s  
✓ Container desktop-db-1        Removed 1.6s  
✓ Network desktop_default      Removed 0.2s  
mohdanas@Mohds-MacBook-Air Desktop %
```

Explanation of docker-compose.yml:

- **wordpress:** Sets up the WordPress container, mapping port 80 inside the container to port 8002 on your local machine.
- **db:** Sets up the MySQL container with a volume (db_data) for persistent storage.

Additional Notes:

- Modify the environment variables as needed for different configurations.
- To view logs, use docker-compose logs -f.

This setup allows you to quickly start a WordPress site locally and experiment with configurations.