

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WARN[0000] /Users/mohdanas/Desktop/docker-compose.yml: the attribute `version` is obsolete, it will be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 39.9s
  ✔ 8aff3675e9cf Pull complete 1.1s
  ✔ 36a6c63ed289 Pull complete 1.4s
  ✔ 393f10befa10 Pull complete 0.8s
  ✔ 9490d79385bd Pull complete 20.3s
  ✔ 7377787c0d94 Pull complete 20.9s
  ✔ c2957f2e7085 Pull complete 1.4s
  ✔ f7384d8630fb Pull complete 1.4s
  ✔ 17d0c5c262d5 Pull complete 2.1s
  ✔ d59ba4d7fa27 Pull complete 3.9s
  ✔ 190e5ea9eb58 Pull complete 34.7s
✔ wordpress Pulled 32.3s
  ✔ 5bc14b354a7a Pull complete 0.7s
  ✔ da89c9aad054 Pull complete 1.4s
  ✔ ba090e6166a5 Pull complete 25.3s
  ✔ b4e9544b350e Pull complete 1.3s
  ✔ a19ad20d8025 Pull complete 25.4s
  ✔ ab54b9a0ad04 Pull complete 1.4s
  ✔ 4dfce9b6f1b5 Pull complete 1.1s
  ✔ f3b6c1574c71 Pull complete 6.5s
  ✔ cc79507d0035 Pull complete 1.4s
  ✔ ad3a163e49c9 Pull complete 25.6s
  ✔ 5084a984c248 Pull complete 1.6s
  ✔ 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.

localhost:8002/wp-admin/install.php?step=1

Welcome

Welcome to the famous five-minute WordPress installation process! Just fill in the information below and you'll be on your way to using the most extendable and powerful personal publishing platform in the world.

Information needed

Please provide the following information. Do not worry, you can always change these settings later.

Site Title

Username

Names can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

Password [Show](#)

Strong

Important: You will need this password to log in. Please store it in a secure location.

Your Email

Double-check your email address before continuing.

Search engine visibility ☐ Discourage search engines from indexing this site

It is up to search engines to honor this request.

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.