DOCKER
COMPOSE

E-BOOK

Objective

To deploy a WordPress site with a MySQL database using Docker Compose.

Docker Compose is used to run multiple containers as a single service. For example, suppose you had an application which required Wordpress and MySQL, you could create one file which would start both the containers as a service without the need to start each one separately.

Step 1 : Install Docker

```
ubuntu@ip-172-31-83-162:~$ sudo apt install docker.io
```

Step 2 : Install docker-compose

```
ubuntu@ip-172-31-83-162:~$ sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docke
-$(uname -m)" -o /usr/local/bin/docker-compose
```

```
ubuntu@ip-172-31-83-162:~$ sudo chmod +x /usr/local/bin/docker-compose
ubuntu@ip-172-31-83-162:~$ docker-compose --version
docker-compose version 1.29.2, build 5becea4c
```

Step3: create docker-compose file using vi editor

```
ubuntu@ip-172-31-83-162:~$ vi docker-compose.yml
```

```
services:
  wordpress:
    image: wordpress:latest
    container_name: wordpress
    ports:
      - "8009:80"
    environment:
      WORDPRESS_DB_HOST: db:3306
      WORDPRESS_DB_USER: wpuser
      WORDPRESS_DB_PASSWORD: wppassword
      WORDPRESS_DB_NAME: wordpress
    depends_on:
      - db

  db:
    image: mysql:5.7
    container_name: mysql_db
    environment:
      MYSQL_DATABASE: wordpress
      MYSQL_USER: wpuser
      MYSQL_PASSWORD: wppassword
      MYSQL_ROOT_PASSWORD: rootpassword
    volumes:
      - db_data:/var/lib/mysql

volumes:
  db_data:
"docker-compose.yml" 30L, 580B
```

In docker-compose.yml, we define the services for **WordPress** and **MySQL**.

Explanation of docker-compose.yml

- **wordpress**: The WordPress container, using environment variables to connect to the database service (db).

  - WORDPRESS_DB_HOST: Points to the MySQL service (db) on port 3306.

  - WORDPRESS_DB_USER, WORDPRESS_DB_PASSWORD, and WORDPRESS_DB_NAME: Set credentials and database name for WordPress.

  - depends_on: Ensures the db service starts before WordPress.

- **db**: The MySQL container for WordPress's database, initialized with environment variables.

  - MYSQL_DATABASE: Specifies the database name for WordPress.

  - MYSQL_USER, MYSQL_PASSWORD, and MYSQL_ROOT_PASSWORD: Set the credentials for MySQL.

  - volumes: Data is stored in a named volume (db_data) to persist even if the container restarts.

Step 4: Launch the Containers with Docker Compose

```
ubuntu@ip-172-31-83-162:~$ sudo docker-compose up -d
```

- The -d flag runs containers in detached mode.

- Docker will download the wordpress and mysql images if they aren't already on your machine.

```
Status: Downloaded newer image for wordpress:latest
Creating mysql_db ... done
Creating wordpress ... done
```

Step 5: Access the WordPress Site

1. **Open your browser and go to http://44.203.156.170:8009**

2. **You should see the WordPress installation screen.**

3. **Follow the installation steps by entering your site information to complete the setup.**