

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
```

```

C:\Users\namit\docker-compose-lab>docker-compose up -d
time="2026-02-10T12:20:19+05:30" level=warning msg="C:\\\\Users\\\\namit\\\\docker-compose-lab\\\\docker-compose.yml: the attribute 'version' is obsolete, it will b
e ignored, please remove it to avoid potential confusion"
[+] Running 36/36
  ✓ wordpress Pulled
    ✓ e24598f8ce57 Pull complete      54.7s
    ✓ 0c8d55a45c0d Pull complete      40.6s
    ✓ 927120e36889 Pull complete     18.7s
    ✓ 466b7d277689 Pull complete     41.5s
    ✓ 5c5b43c27ddc Pull complete     1.9s
    ✓ 615510a9094d Pull complete     1.9s
    ✓ 3670ec7d2246 Pull complete     2.2s
    ✓ 0062c4fcbb2c Pull complete     42.4s
    ✓ 4d8bc193e0d0 Pull complete     2.3s
    ✓ 64133ee529eb Pull complete     42.6s
    ✓ 2e9fadef0540e Pull complete    2.2s
    ✓ 1ef348da7165 Pull complete     2.3s
    ✓ b653b146e793 Pull complete     45.8s
    ✓ adf09e671c52 Pull complete     48.6s
    ✓ db5c301a6945 Pull complete     48.5s
    ✓ f42ce3872b1f Pull complete     2.2s
    ✓ 4f4fb700ef54 Pull complete     45.6s
    ✓ 16b69d6f3818 Pull complete     0.0s
    ✓ 27e4a7ec2970 Pull complete     2.3s
    ✓ e92ad73a645a Pull complete     1.9s
    ✓ 10ecd2cd73b5 Pull complete     44.1s
    ✓ 8cb331d7a7d9 Pull complete     41.1s
    ✓ 9046ed4332b7 Pull complete     2.2s
    ✓ 26c27d12a90a Pull complete     2.3s
  ✓ db Pulled                      65.1s
    ✓ fe44c8bf49c1 Pull complete     0.7s
    ✓ 7a3934072b44 Pull complete     34.0s
    ✓ 85e7dc27e1dd Pull complete     34.6s
    ✓ e5a384f12fc1 Pull complete     1.8s
    ✓ 4f37333d1be6 Pull complete     33.9s
    ✓ c07617e6f14b Pull complete     34.5s
    ✓ c3c2157be11c Pull complete     37.2s
    ✓ 74e9390a4418 Pull complete     1.7s
    ✓ a5b1ba019080 Pull complete     1.8s
    ✓ 93b95dea6553 Pull complete     59.1s
[+] Running 4/4

```

[+] Running 4/4

```

[+] Running 4/4
  ✓ Network docker-compose-lab_default      Created          0.2s
  ✓ Volume "docker-compose-lab_db_data"       Created          0.0s
  ✓ Container docker-compose-lab-db-1        Started         2.3s
  ✓ Container docker-compose-lab-wordpress-1 Started         1.4s

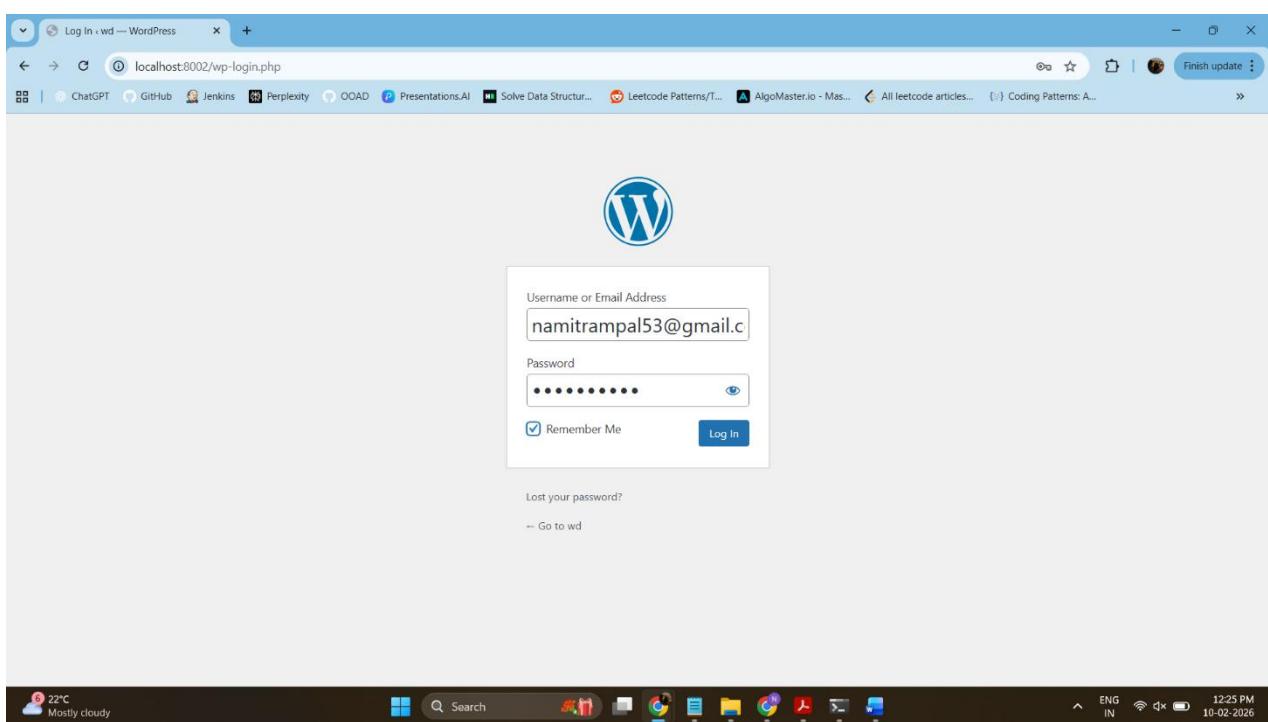
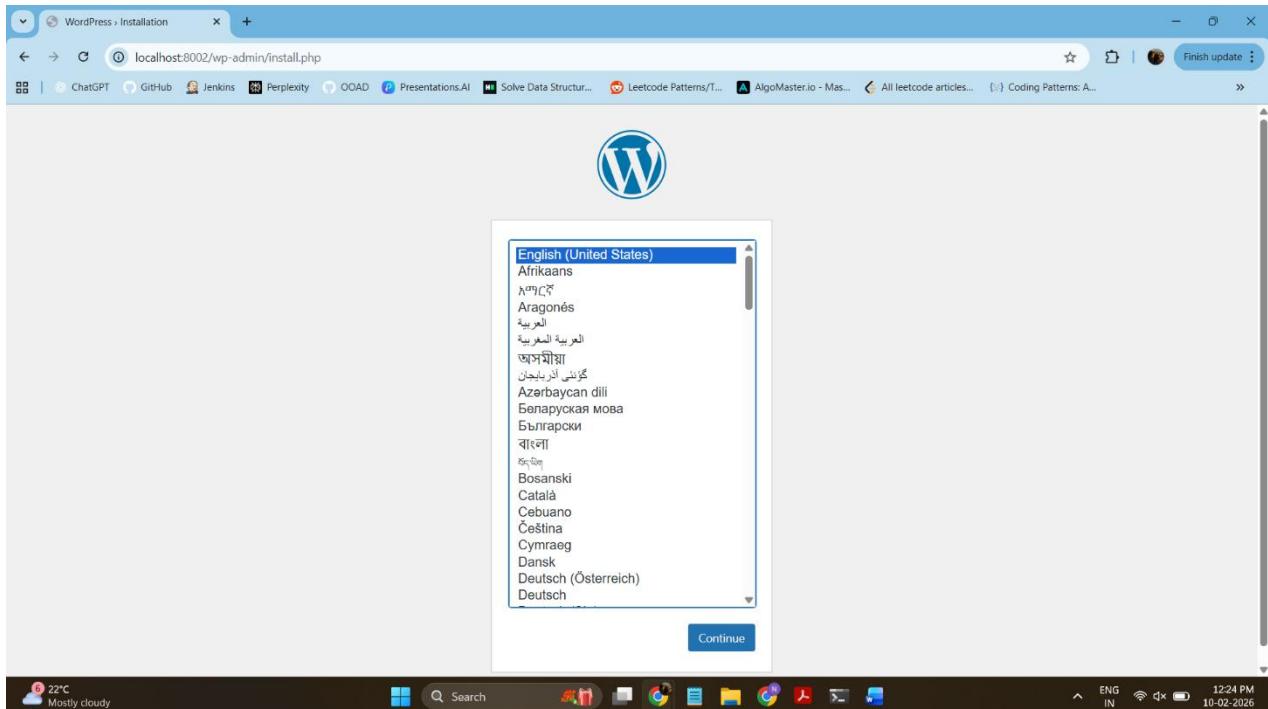
```

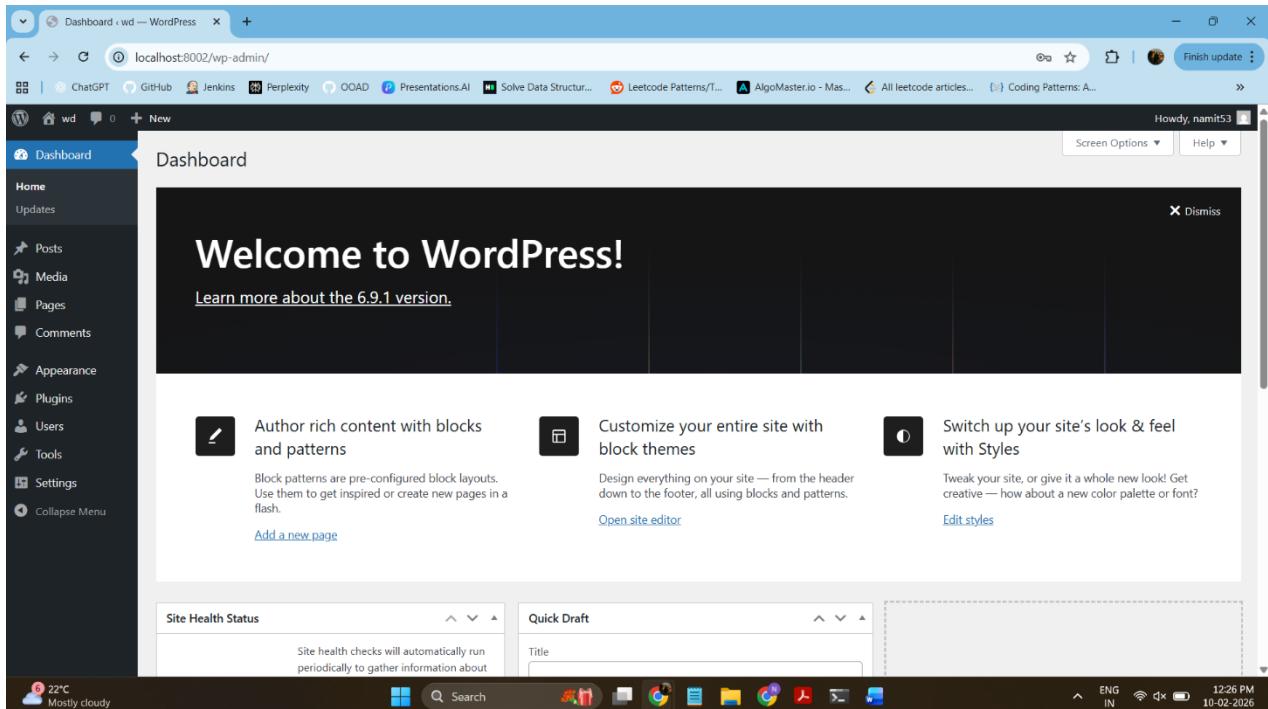
C:\Users\namit\docker-compose-lab>

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

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
```

```
C:\Users\namit\docker-compose-lab>docker-compose down
time="2026-02-10T12:26:59+05:30" level=warning msg="C:\\\\Users\\\\namit\\\\docker-compose-lab\\\\docker-compose.yml: the attribute 'version' is obsolete, it will be ignored, please remove it to avoid potential confusion"
[+] Running 3/3
  ✓ Container docker-compose-lab-wordpress-1  Removed          1.6s
  ✓ Container docker-compose-lab-db-1        Removed          2.0s
  ✓ Network docker-compose-lab_default     Removed          0.4s
C:\Users\namit\docker-compose-lab>
```

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.