

# **Lab Exercise 6- Docker-Compose file**

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## **Objective:**

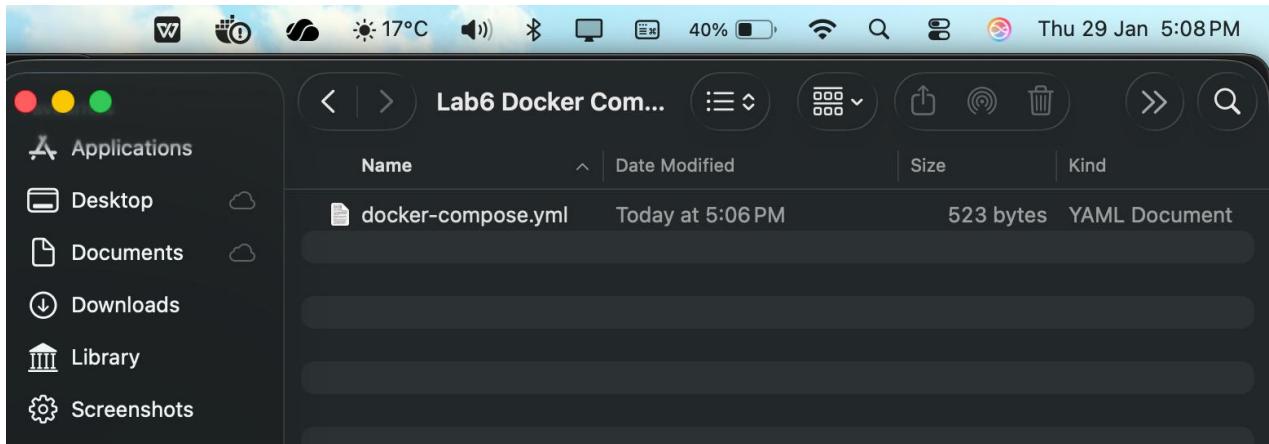
Set up a WordPress environment using Docker Compose, including a MySQL database as the backend.

## **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:
```

The screenshot shows a dark-themed instance of VS Code. In the center, there is an open editor tab titled "docker-compose.yml". The code in the editor is as follows:

```
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:
```

On the right side of the interface, there is a sidebar with the heading "Build with agent mode". It includes a note that AI responses may be inaccurate, a "Generate Agent Instructions" button, and a message about onboard AI onto your codebase.

## Step 2: Start the Containers

1. Run the following command to start the containers:

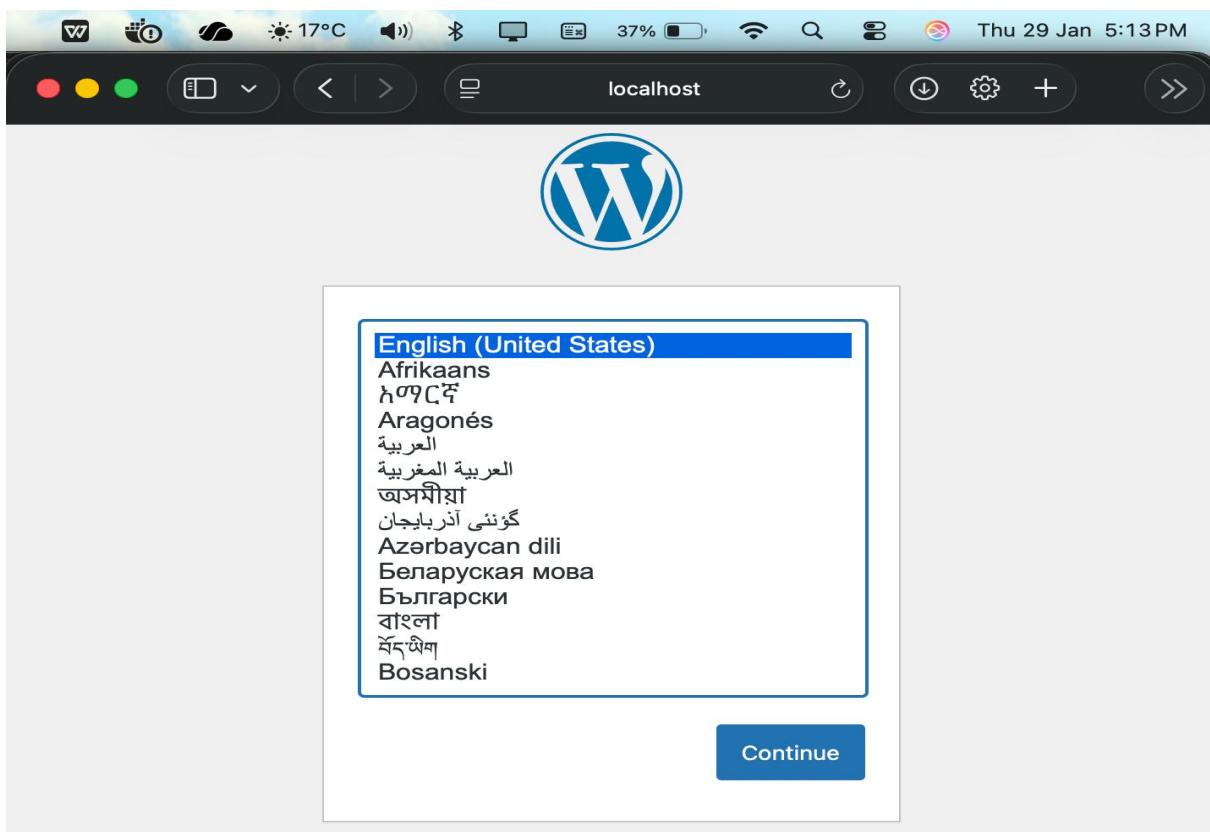
```
docker-compose up -d
```

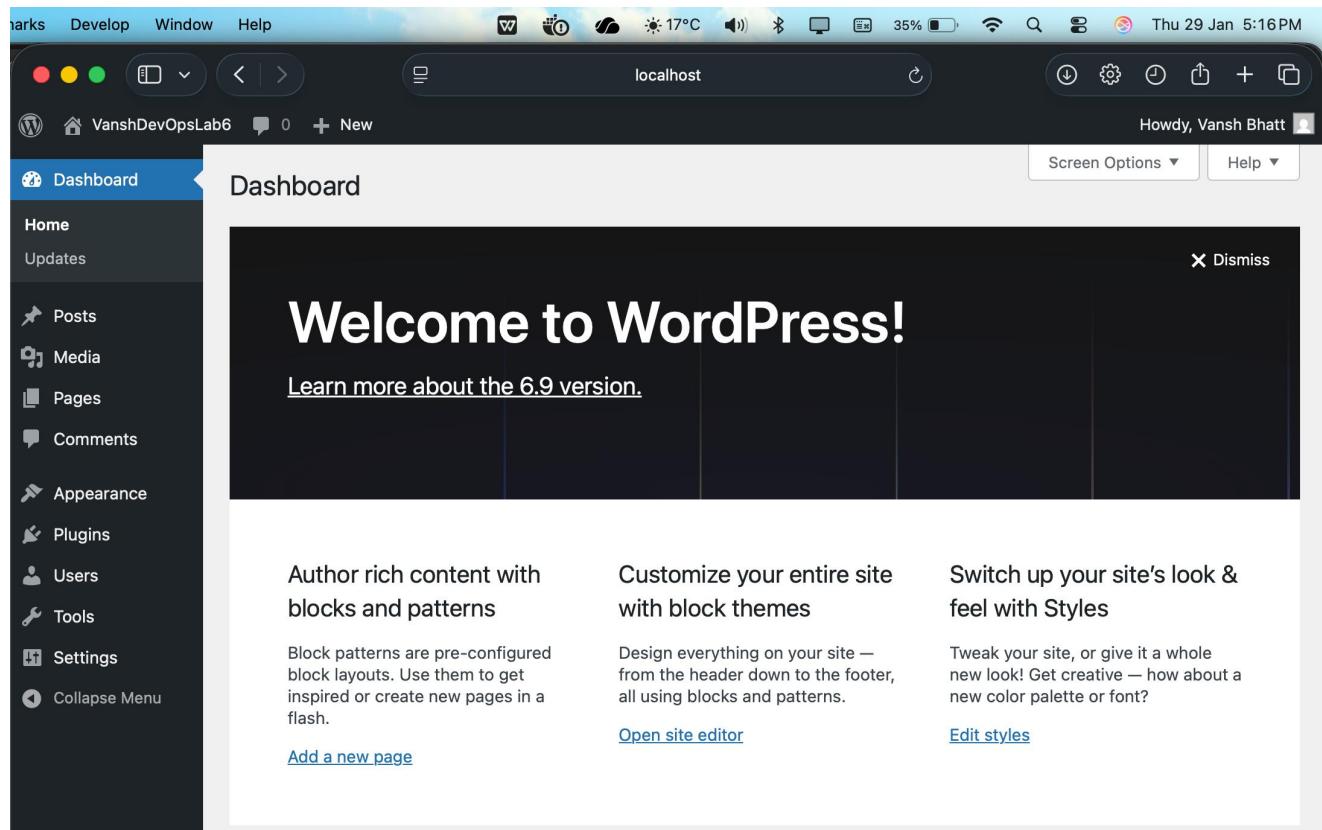
2. Docker Compose will download the necessary images (WordPress and MySQL) and start both services.

```
WARN[0000] /Users/vanshssupermac/DevSecOps Lab Sem-6/Lab6 Docker Compose/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 39/39
  ✓ db Pulled                                         27.3s
    ✓ a6b304c02e4c Pull complete                      1.2s
    ✓ 738f62f1d599 Pull complete                      1.4s
    ✓ 67e56a90a835 Pull complete                      1.4s
    ✓ 006f7f7ff6e4 Pull complete                      9.9s
    ✓ 8faa10d9d71c Pull complete                      11.3s
    ✓ 31b9f6336eda Pull complete                      1.4s
    ✓ b843a2959b2f Pull complete                      1.9s
    ✓ e77567d6b6a5 Pull complete                      10.2s
    ✓ da467ea611ce Pull complete                      1.4s
    ✓ 5cb7744a65c8 Pull complete                      17.9s
    ✓ 2d0d0e147255 Download complete                 0.0s
    ✓ ce8d5de6470f Download complete                 0.5s
  ✓ wordpress Pulled                                 27.4s
    ✓ ba090e6166a5 Pull complete                      15.0s
    ✓ a4543249b36f Pull complete                      1.4s
```

#### 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
```

A screenshot of a terminal window on a Mac OS X desktop. The title bar shows '-zsh'. The command 'docker-compose down' was run, resulting in the following output:

```
vanshssupermac@Vanshs-MacBook-Air Lab6 Docker Compose % docker-compose down -v
WARN[0000] /Users/vanshssupermac/DevSecOps Lab Sem-6/Lab6 Docker Compose/docker-compose.yml: the attribute `version` is obsolete, it will be ignored, please remove it to avoid potential confusion
[+] Running 4/4
✓ Container lab6dockercompose-wordpress-1 Remove... 1.3s
✓ Container lab6dockercompose-db-1 Removed 1.0s
✓ Network lab6dockercompose_default Removed 0.2s
✓ Volume lab6dockercompose_db_data Removed 0.0s
vanshssupermac@Vanshs-MacBook-Air Lab6 Docker Compose %
```

The terminal window also shows the user's name 'vanshssupermac' and the current directory 'Lab6 Docker Compose'.

### **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.

# Thank You