

[version_1.0]

Exercise 3: Launching Containers with Docker Compose

In this exercise, you launch the containers by using Docker Compose.

Task 1: Installing and building Docker Compose

In this task, you will install Docker Compose. You will then build with Docker Compose by using the `docker-compose.yml` file, which will launch four containers.

1. In the AWS Management Console, choose **Services**, and then search for and open **Cloud9**.
2. Open your AWS Cloud9 integrated development environment (IDE) instance.
3. To install Docker Compose, run the following command.

```
sudo curl -L "https://github.com/docker/compose/releases/download/1.29.2/docker-compose-$(uname -s)-$(uname -m)" -o /usr/local/bin/docker-compose
sudo chmod +x /usr/local/bin/docker-compose
```

4. Build by using the `docker-compose.yml` file.

```
cd ~/environment
docker-compose build
```

Task 2: Launching the containers for the frontend and services

In this task, you will launch the containers through Docker Compose.

1. Launch the containers.

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

2. Check the status of your running containers.

```
docker-compose ps
```

You should see four containers:

- The directory service
- A local developer edition of Amazon DynamoDB
- A frontend Flask application
- An AWS Command Line Interface (AWS CLI) container (it will create the DynamoDB table and exit)

3. Exec into the directory-frontend container.

```
docker-compose exec directory-frontend bash
```

4. Inside the container, run the following commands.

```
ps -x

# you can access the "service" container from the front end to see the users data
curl directory-service/employee

exit
```

5. View the application frontend by choosing **Preview**, **Preview Running Application**.

6. Add some users to the corporate directory by choosing **Add**, filling out the form, and choosing **Save**.

7. View the logs from the directory-frontend container.

```
docker-compose logs directory-frontend
```

8. Stop and remove the Docker resources by running the `docker-compose down` command.

```
docker-compose down
```

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