

Assignments Containerization, Docker, and Docker Hub:

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L3 - Demonstrate Docker Compose using the Application Image and MySQL Image to start and stop all container services

Step1 installing docker compose using command

Apt install docker-compose -y

Created the .yaml file in ec2 ubuntu instance

Vi docker-compose.yaml

```

version: '3'

services:
  app:
    build: .
    ports:
      - "3000:3000"
    environment:
      - MYSQL_HOST=db
      - MYSQL_USER=myapp
      - MYSQL_PASSWORD=mypassword
      - MYSQL_DATABASE=myapp
    depends_on:
      - db

  db:
    image: mysql:5.7
    environment:
      - MYSQL_ROOT_PASSWORD=mysqlpassword
      - MYSQL_USER=myapp
      - MYSQL_PASSWORD=mypassword
      - MYSQL_DATABASE=myapp
    volumes:
      - mysql-data:/var/lib/mysql

volumes:
  mysql-data:
~
~
~
~

```

Used the command to start services

docker-compose up -d

```

root@ip-172-31-20-31:/home/ubuntu/addressbook2# vi docker-compose.yml
root@ip-172-31-20-31:/home/ubuntu/addressbook2# docker-compose up -d
Creating network "addressbook2_default" with the default driver
Creating volume "addressbook2_mysql-data" with default driver
Building app
DEPRECATED: The legacy builder is deprecated and will be removed in a future release.
             Install the buildx component to build images with BuildKit:
             https://docs.docker.com/go/buildx/

Sending build context to Docker daemon  67.46MB
Step 1/4 : FROM tomcat:9
--> 11478868f0e3
Step 2/4 : COPY target/*.war /usr/local/tomcat/webapps/address.war
--> Using cache
--> 35e35d7391a2
Step 3/4 : EXPOSE 8080
--> Using cache
--> 5851151721d7
Step 4/4 : CMD ["catalina.sh","run"]
--> Using cache
--> 759089e4fe32
Successfully built 759089e4fe32
Successfully tagged addressbook2_app:latest
WARNING: Image for service app was built because it did not already exist. To rebuild this image you must use 'docker-compose build' or 'docker-compose up
--build'
Creating addressbook2_db_1 ... done
Creating addressbook2_app_1 ... done
root@ip-172-31-20-31:/home/ubuntu/addressbook2#

```

Verified the container status using

docker-compose ps

```

root@ip-172-31-20-51:/home/ubuntu/Addressbook2# docker-compose ps

```

Name	Command	State	Ports
addressbook2_app_1	catalina.sh run	Up	0.0.0.0:3000->3000/tcp, :::3000->3000/tcp, 8080/tcp
addressbook2_db_1	docker-entrypoint.sh mysqld	Up	3306/tcp, 33060/tcp

```

root@ip-172-31-20-51:/home/ubuntu/Addressbook2#

```

Stopped the container using command

docker-compose down

```

root@ip-172-31-20-51:/home/ubuntu/Addressbook2# docker-compose down
Stopping addressbook2_app_1 ... done
Stopping addressbook2_db_1 ... done
Removing addressbook2_app_1 ... done
Removing addressbook2_db_1 ... done
Removing network addressbook2_default
root@ip-172-31-20-51:/home/ubuntu/Addressbook2#

```

```

root@ip-172-31-20-51:/home/ubuntu/Addressbook2# docker-compose down
Stopping addressbook2_app_1 ... done
Stopping addressbook2_db_1 ... done
Removing addressbook2_app_1 ... done
Removing addressbook2_db_1 ... done
Removing network addressbook2_default
root@ip-172-31-20-51:/home/ubuntu/Addressbook2# docker-compose ps
Name      Command      State      Ports
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```