

Steps for Dockerization

1) Pull Docker Image

```
docker pull mysql:latest
```

2) Create container connecting to mysql

```
docker run -d -p 3307:3306 --name mysqldb -e MYSQL_ROOT_PASSWORD=Elonmusk@12 -e MYSQL_DATABASE=booksrepository -e MYSQL_PASSWORD=Elonmusk@12 mysql
```

3) Create a Network

```
docker network create Book_network
```

4) Connect Network to Container

```
docker network connect Book_network mysqldb
```

5) Application properties

```
spring.jpa.hibernate.ddl-auto=update
```

```
spring.datasource.url=jdbc:mysql://${MYSQL_HOST:localhost}:${MYSQL_PORT:3306}/booksrepository
```

```
spring.datasource.username=${MYSQL_USER:root}
```

```
spring.datasource.password=${MYSQL_PASSWORD:Elonmusk@12}
```

```
server.port=8087
```

6) Create package

```
mvn clean package
```

7) Create Docker file

```
FROM openjdk:11
```

```
ADD target/Book.jar Book.jar
```

```
EXPOSE 8087
```

```
ENTRYPOINT ["java", "-jar", "Book.jar"]
```

8) Build image using docker file

```
docker build -t <imageName> .
```

9) Run the container to start spring

```
docker run -p 8088:8087 --name book-container --net book_network --env-file env.txt book_image
```

10) env.txt

```
MYSQL_HOST=mysqldb
```

```
MYSQL_USER=root
```

```
MYSQL_PASSWORD=root
```

```
MYSQL_PORT=3306
```

To push to docker

1) login first

```
docker login
```

2) create a tag

```
docker tag book_image_v1 sheru123/bookrepo:book_image_1.0
```

3) push to repo

```
docker push sheru123/bookrepo:book_image_1.0
```

To pull the docker image and run

1) docker pull sheru123/bookrepo:book_image_1.0

```
2) docker run -p 8088:8087 --name book-containers --net book_network --env-file env.txt sheru123/bookrepo:book_image_1.0
```

