

Title: Spring Boot, Java, Docker Compose, Getting 'Connection refused' while trying to make connection between two container (mysql, my-api)

Post Body:

When I execute the `docker-compose up` command, the following error is generated:

Caused by: `java.net.ConnectException: Connection refused`

I am trying to establish a connection between two containers, MySQL and My-API container, using docker-compose, but it is somehow not connecting. Here is the docker-compose.yml:

```
version: '3'
services:
  discovery-mysql:
    image: mysql:5.7.34
    container_name: discovery-mysql
    environment:
```

Things that I had tried:

I added networks: -common-network to put into the same network, but didn't work. I don't see anything wrong with the URL

`r2dbc:mysql://root:tomo@discovery-mysql:3306/r2dbc`. By the way, when I run the program locally on IDE (not using docker-compose up), given the `url=r2dbc:mysql://root:tomo@127.0.0.1:3306/r2dbc`, it works fine.

I have seen similar threads on stack overflow, but many of their solutions didn't work (I specified in the "Things that I had tried" section).

What could be the reason that the lead to the error `Caused by: java.net.ConnectException: Connection refused`?

Here are the full details of errors:

```
C:\Users\me\github\HelloWorld>docker-compose up
WARNING: Found orphan containers (mysql) for this project. If you removed or n
```

How I am pushing changes every time:

```
mvnw package && java -jar target/spring-boot-0.0.1-SNAPSHOT.jar
docker build -t tomojava3284/helloworldapi .
docker push tomoj
```

Accepted Answer: None

Highest Rated Answer:

I think there is a bug there when accessing the database by service name. as a solution I can suggest you use `host.docker.internal`. then the URL will be like the below. it will not be a problem in the production mode due to using a managed database.

```
- spring.datasource.url=r2dbc:mysql://root:tomo@host.docker.internal:3306/r2dbc
```

<https://docs.docker.com/desktop/networking/#i-want-to-connect-from-a-container-to-a-service-on-the-host>