# Docker Compose Setup for Spring Boot and MySQL Application

This document provides a detailed explanation of a Docker Compose setup for running a Spring Boot application and a MySQL database in a containerized environment.   
The setup ensures that both containers are on the same network for internal communication, with added health checks, retry configurations, and volume persistence.

## Docker Compose File Configuration

Below is the `docker-compose.yml` file used for this setup:  
  
version: '3.8'  
  
services:  
 mysql:  
 image: mysql:latest  
 container\_name: mysql  
 environment:  
 MYSQL\_DATABASE: bankappdb  
 MYSQL\_ROOT\_PASSWORD: Test@123  
 volumes:  
 - mysql\_data:/var/lib/mysql  
 networks:  
 - bankapp-network  
 healthcheck:  
 test: ["CMD", "mysqladmin", "ping", "-h", "localhost"]  
 interval: 30s  
 timeout: 10s  
 retries: 5  
  
 bankapp:  
 image: bankapp-image # Replace with your Spring Boot app image name  
 container\_name: bankapp  
 depends\_on:  
 mysql:  
 condition: service\_healthy  
 environment:  
 SPRING\_DATASOURCE\_URL: jdbc:mysql://mysql:3306/bankappdb  
 SPRING\_DATASOURCE\_USERNAME: root  
 SPRING\_DATASOURCE\_PASSWORD: Test@123  
 ports:  
 - 8080:8080  
 networks:  
 - bankapp-network  
 healthcheck:  
 test: ["CMD", "curl", "-f", "http://localhost:8080/actuator/health"]  
 interval: 30s  
 timeout: 10s  
 retries: 5  
  
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 bankapp-network:  
  
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