**Spring Data JPA - Quick Example** 

**CODE:**

**OrmLearnApplication.java:**

package com.cognizant.ormlearn;  
import com.cognizant.ormlearn.model.Country;  
import com.cognizant.ormlearn.service.CountryService;  
import org.slf4j.Logger;  
import org.slf4j.LoggerFactory;  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
import org.springframework.context.ApplicationContext;  
import java.util.List;  
  
@SpringBootApplication  
public class OrmLearnApplication {  
 private static final Logger *LOGGER* = LoggerFactory.*getLogger*(OrmLearnApplication.class);  
 private static CountryService *countryService*;  
 public static void main(String[] args) {  
 ApplicationContext context = SpringApplication.*run*(OrmLearnApplication.class, args);  
 *LOGGER*.info("Inside main");  
 *countryService* = context.getBean(CountryService.class);  
 *testGetAllCountries*();  
 }  
 private static void testGetAllCountries() {  
 *LOGGER*.info("Start");  
 List<Country> countries = *countryService*.getAllCountries();  
 *LOGGER*.debug("countries={}", countries);  
 *LOGGER*.info("End");  
 }  
}

**Country.java:**

package com.cognizant.ormlearn.model;  
  
import javax.persistence.Column;  
import javax.persistence.Entity;  
import javax.persistence.Id;  
import javax.persistence.Table;  
  
@Entity  
@Table(name = "country")  
public class Country {  
 @Id  
 @Column(name = "code")  
 private String code;  
 @Column(name = "name")  
 private String name;  
 // Getters and setters  
 public String getCode() {  
 return code;  
 }  
 public void setCode(String code) {  
 this.code = code;  
 }  
 public String getName() {  
 return name;  
 }  
 public void setName(String name) {  
 this.name = name;  
 }  
 // toString  
 @Override  
 public String toString() {  
 return "Country [code=" + code + ", name=" + name + "]";  
 }  
}

**CountryService.java:**

package com.cognizant.ormlearn.service;  
import com.cognizant.ormlearn.model.Country;  
import com.cognizant.ormlearn.repository.CountryRepository;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.stereotype.Service;  
import org.springframework.transaction.annotation.Transactional;  
import java.util.List;  
@Service  
public class CountryService {  
 @Autowired  
 private CountryRepository countryRepository;  
 @Transactional  
 public List<Country> getAllCountries() {  
 return countryRepository.findAll();  
 }  
}

**CountryRepository.java:**

package com.cognizant.ormlearn.repository;  
import org.springframework.data.jpa.repository.JpaRepository;  
import org.springframework.stereotype.Repository;  
import com.cognizant.ormlearn.model.Country;  
@Repository  
public interface CountryRepository extends JpaRepository<Country, String> {  
}

**applicationProperties.java:**

# Logging configuration  
logging.level.org.springframework=info  
logging.level.com.cognizant=debug  
logging.level.org.hibernate.SQL=trace  
logging.level.org.hibernate.type.descriptor.sql=trace  
logging.pattern.console=%d{dd-MM-yy} %d{HH:mm:ss.SSS} %-20.20thread %5p %-25.25logger{25} %25M %4L %m%n  
  
# Database configuration  
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver  
spring.datasource.url=jdbc:mysql://localhost:3306/ormlearn  
spring.datasource.username=root  
spring.datasource.password=Root@2027  
  
# Hibernate config  
spring.jpa.hibernate.ddl-auto=validate  
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL5Dialect

**Pom.xml:**

<project xmlns="http://maven.apache.org/POM/4.0.0"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="http://maven.apache.org/POM/4.0.0  
 http://maven.apache.org/xsd/maven-4.0.0.xsd">  
 <modelVersion>4.0.0</modelVersion>  
 <groupId>com.cognizant</groupId>  
 <artifactId>orm-learn</artifactId>  
 <version>1.0-SNAPSHOT</version>  
 <packaging>jar</packaging>  
 <name>orm-learn</name>  
 <description>Demo project for Spring Data JPA and Hibernate</description>  
 <parent>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-parent</artifactId>  
 <version>2.7.12</version>  
 <relativePath/>  
 </parent>  
 <properties>  
 <java.version>1.8</java.version>  
 </properties>  
 <dependencies>  
 <!-- Spring Data JPA -->  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-data-jpa</artifactId>  
 </dependency>  
 <!-- MySQL Connector -->  
 <dependency>  
 <groupId>mysql</groupId>  
 <artifactId>mysql-connector-java</artifactId>  
 <version>8.0.33</version> <!-- Version added --> <scope>runtime</scope>  
 </dependency>  
 <!-- Logging -->  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-logging</artifactId>  
 </dependency>  
  
 <!-- DevTools (optional for hot reload) -->  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-devtools</artifactId>  
 <scope>runtime</scope>  
 </dependency>  
 </dependencies>  
 <build>  
 <plugins>  
 <!-- Compiler Plugin -->  
 <plugin>  
 <groupId>org.apache.maven.plugins</groupId>  
 <artifactId>maven-compiler-plugin</artifactId>  
 <version>3.8.1</version>  
 <configuration>  
 <source>1.8</source>  
 <target>1.8</target>  
 </configuration>  
 </plugin>  
 </plugins>  
 </build>  
</project>

**Creating table:**

USE ormlearn;

CREATE TABLE Country (

code VARCHAR(2) PRIMARY KEY,

name VARCHAR(50)

);

DROP TABLE IF EXISTS Country;

INSERT INTO country VALUES ('IN', 'India');

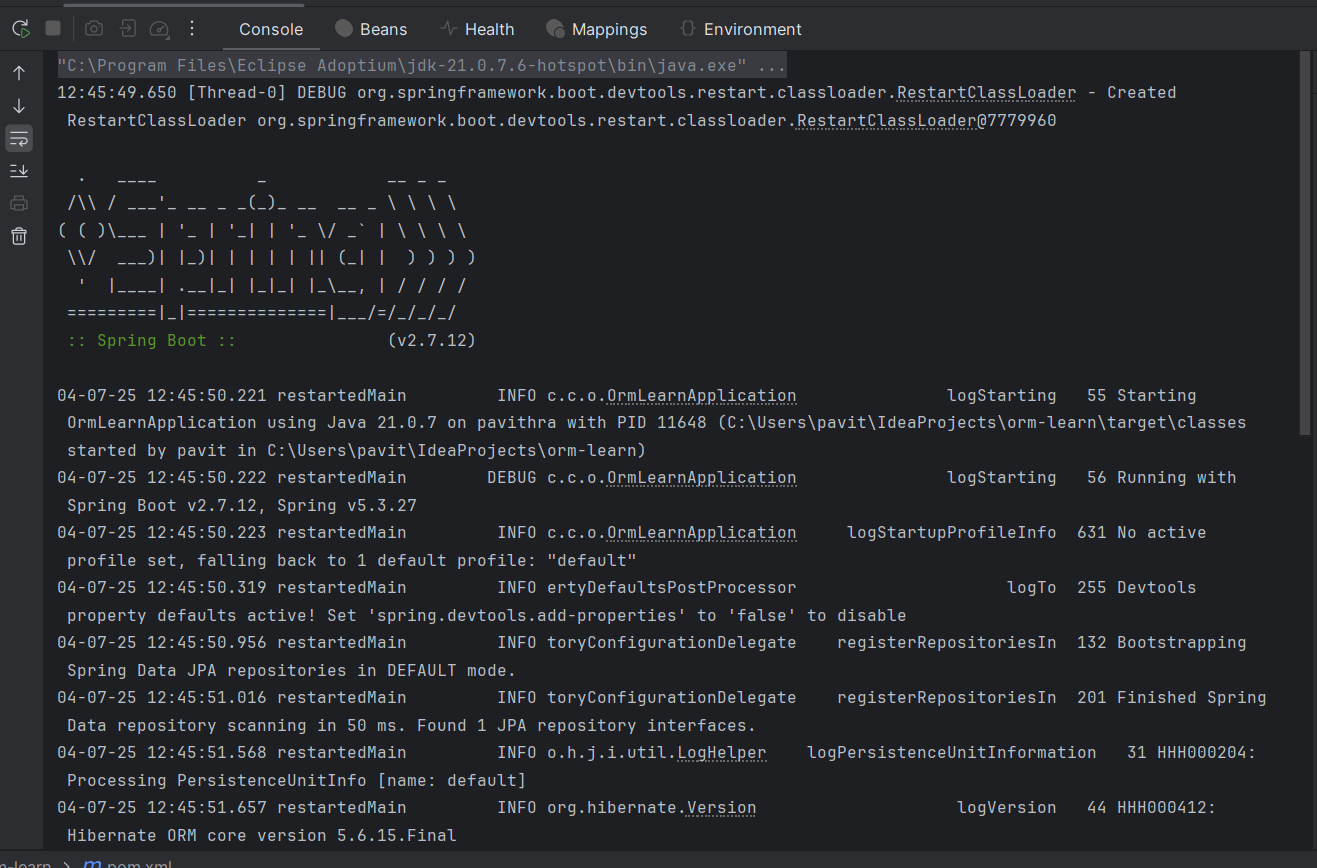
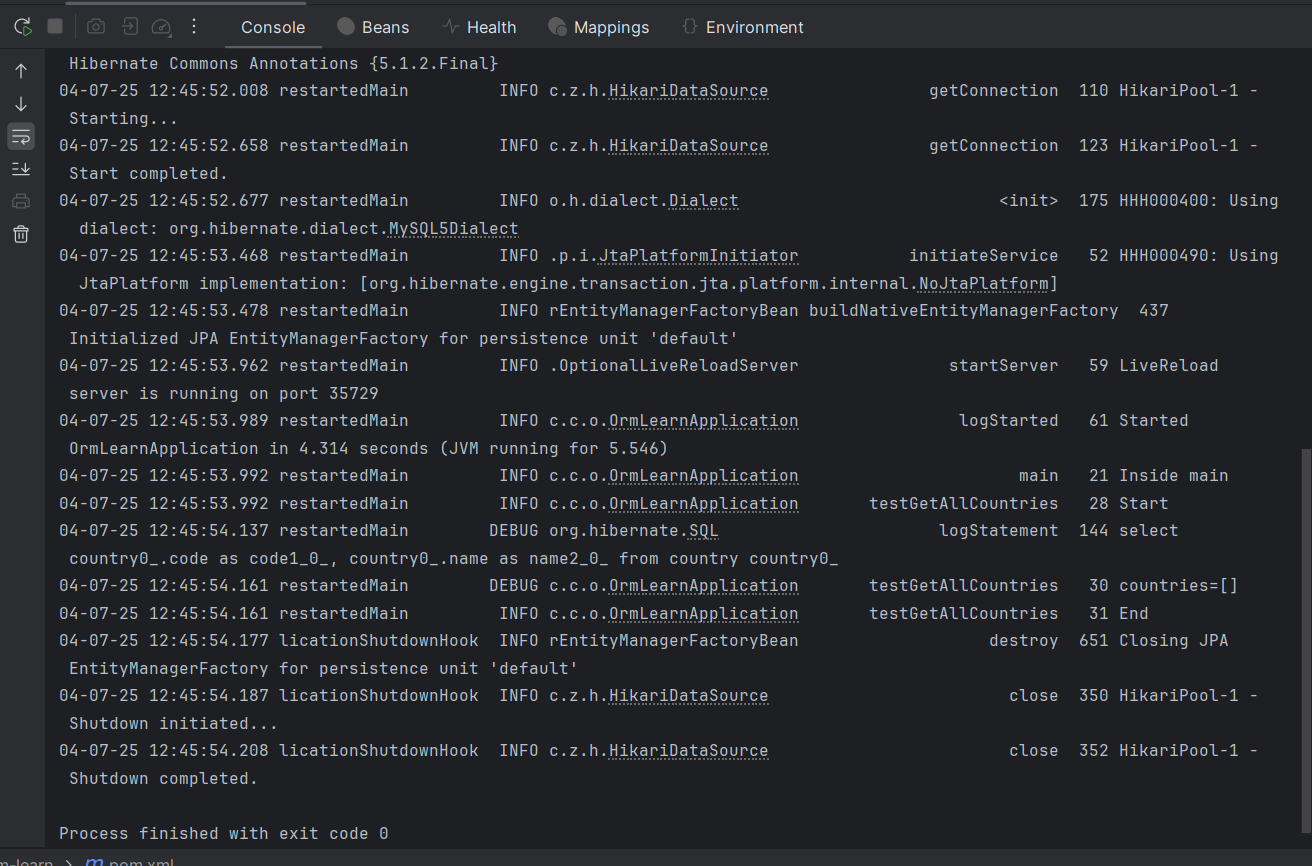
INSERT INTO country VALUES ('US', 'United States of America');

INSERT INTO country VALUES ('UK', 'United Kingdom');

INSERT INTO country VALUES ('AU', 'Australia');

INSERT INTO country VALUES ('CN', 'China');

**OUTPUT:**

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