**Spring Data JPA Quick Example**

**Java Files**

**OrmLearnApplication.java**

package com.cognizant.ormlearn;  
  
import java.util.List;  
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 com.cognizant.ormlearn.model.Country;  
import com.cognizant.ormlearn.service.CountryService;  
  
@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);  
 countryService = context.getBean(CountryService.class);  
 LOGGER.info("Inside main");  
 // Uncomment for manual console test  
 // 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 jakarta.persistence.Column;  
import jakarta.persistence.Entity;  
import jakarta.persistence.Id;  
import jakarta.persistence.Table;  
  
@Entity  
@Table(name = "country")  
public class Country {  
  
 @Id  
 @Column(name = "co\_code")  
 private String code;  
  
 @Column(name = "co\_name")  
 private String name;  
  
 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; }  
  
 @Override  
 public String toString() {  
 return "Country [code=" + code + ", name=" + name + "]";  
 }  
}

**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> { }

**CountryService.java**

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

**CountryController.java**

package com.cognizant.ormlearn.controller;  
  
import java.util.List;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.web.bind.annotation.GetMapping;  
import org.springframework.web.bind.annotation.RestController;  
import com.cognizant.ormlearn.model.Country;  
import com.cognizant.ormlearn.service.CountryService;  
  
@RestController  
public class CountryController {  
  
 @Autowired  
 private CountryService countryService;  
  
 @GetMapping("/countries")  
 public List<Country> listAll() {  
 return countryService.getAllCountries();  
 }  
}

**Configuration Files**

**application.properties**

# Logging  
logging.level.org.springframework=info  
logging.level.com.cognizant.orm\_learn=debug  
logging.level.org.hibernate.SQL=trace  
logging.level.org.hibernate.type.descriptor.sql=trace  
  
# Database  
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  
  
# Hibernate  
spring.jpa.hibernate.ddl-auto=validate

**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>0.0.1-SNAPSHOT</version>  
 <packaging>jar</packaging>  
  
 <parent>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-parent</artifactId>  
 <version>3.5.3</version>  
 <relativePath/> <!-- lookup parent from repository -->  
 </parent>  
  
 <properties>  
 <java.version>17</java.version>  
 </properties>  
  
 <dependencies>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-data-jpa</artifactId>  
 </dependency>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-web</artifactId>  
 </dependency>  
 <dependency>  
 <groupId>mysql</groupId>  
 <artifactId>mysql-connector-j</artifactId>  
 </dependency>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-devtools</artifactId>  
 <scope>runtime</scope>  
 </dependency>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-test</artifactId>  
 <scope>test</scope>  
 </dependency>  
 </dependencies>  
  
 <build>  
 <plugins>  
 <plugin>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-maven-plugin</artifactId>  
 </plugin>  
 </plugins>  
 </build>  
</project>

**Output:**





