**Spring Data JPA with Spring Boot, Hibernate**

// Country.java

**package** com.cognizant.orm\_learn.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 = "code")

**private** String code;

@Column(name = "name")

**private** String name;

**public** String getCode() {

**return** code;

}

**public** String getName() {

**return** name;

}

**public** **void** setCode(String code) {

**this**.code = code;

}

**public** **void** setName(String name) {

**this**.name = name;

}

@Override

**public** String toString() {

**return** "Country{" +

"code='" + code + '\'' +

", name='" + name + '\'' +

'}';

}

}

// CountryRepository.java

**package** com.cognizant.orm\_learn.repository;

**import** org.springframework.data.jpa.repository.JpaRepository;

**import** org.springframework.stereotype.Repository;

**import** com.cognizant.orm\_learn.model.Country;

@Repository

**public** **interface** CountryRepository **extends** JpaRepository<Country, String> {

}

// CountryService.java

**package** com.cognizant.orm\_learn.service;

**import** java.util.List;

**import** org.springframework.beans.factory.annotation.Autowired;

**import** org.springframework.stereotype.Service;

**import** org.springframework.transaction.annotation.Transactional;

**import** com.cognizant.orm\_learn.model.Country;

**import** com.cognizant.orm\_learn.repository.CountryRepository;

@Service

**public** **class** CountryService {

@Autowired

**private** CountryRepository countryRepository;

@Transactional(readOnly = **true**)

**public** List<Country> getAllCountries() {

**return** countryRepository.findAll();

}

}

// DatabaseCreation.sql

create database ormlearn;

// OrmLearnApplication.java

**package** com.cognizant.orm\_learn;

**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.orm\_learn.model.Country;

**import** com.cognizant.orm\_learn.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);

***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");

}

}

// TableCreation.sql

CREATE TABLE country (

code VARCHAR(2) PRIMARY KEY,

name VARCHAR(50)

);

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

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

INSERT INTO country VALUES ('FR', 'France');

INSERT INTO country VALUES ('JP', 'Japan');

// application.conf

spring.application.name=orm-learn

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

spring.datasource.driver-class-name=org.postgresql.Driver

spring.datasource.url=jdbc:postgresql://localhost:5432/ormlearn

spring.datasource.username=postgres

spring.datasource.password=

spring.jpa.hibernate.ddl-auto=validate

spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.PostgreSQLDialect

// pom.xml

<?xml version="1.0" encoding="UTF-8"?>

<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 https://maven.apache.org/xsd/maven-4.0.0.xsd">

<modelVersion>4.0.0</modelVersion>

<parent>

<groupId>org.springframework.boot</groupId>

<artifactId>spring-boot-starter-parent</artifactId>

<version>3.5.3</version>

<relativePath/> <!-- lookup parent from repository -->

</parent>

<groupId>com.cognizant</groupId>

<artifactId>orm-learn</artifactId>

<version>0.0.1-SNAPSHOT</version>

<name>orm-learn</name>

<description>Demo project for Spring Data JPA and Hibernate</description>

<url/>

<licenses>

<license/>

</licenses>

<developers>

<developer/>

</developers>

<scm>

<connection/>

<developerConnection/>

<tag/>

<url/>

</scm>

<properties>

<java.version>21</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-devtools</artifactId>

<scope>runtime</scope>

<optional>true</optional>

</dependency>

<dependency>

<groupId>org.postgresql</groupId>

<artifactId>postgresql</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:**



