**Spring Data JPA - Quick Example**

**Create Spring Boot Maven project**

* Group: com.cognizant
* Artifact: orm-learn
* Dependencies:
  + Spring Web
  + Spring Data JPA
  + MySQL Driver

**Create Country entity**

com.cognizant.ormlearn.model.Country

package com.cognizant.ormlearn.model;

import jakarta.persistence.Entity;

import jakarta.persistence.Id;

import jakarta.persistence.Table;

@Entity

@Table(name = "country")

public class Country {

@Id

private String code;

private String name;

public Country() {}

public Country(String code, String name) { this.code = code; this.name = 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 + "]";

}

}

**Create Repository**

com.cognizant.ormlearn.repository.CountryRepository

package com.cognizant.ormlearn.repository;

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

import com.cognizant.ormlearn.model.Country;

public interface CountryRepository extends JpaRepository<Country, String> {

}

**Create Service**

com.cognizant.ormlearn.service.CountryService

package com.cognizant.ormlearn.service;

import java.util.List;

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

import org.springframework.stereotype.Service;

import jakarta.transaction.Transactional;

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();

}

}

**Create Main Application class**

com.cognizant.ormlearn.OrmLearnApplication

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);

public static void main(String[] args) {

ApplicationContext context = SpringApplication.run(OrmLearnApplication.class, args);

LOGGER.info("Inside main");

CountryService countryService = context.getBean(CountryService.class);

testGetAllCountries(countryService);

}

private static void testGetAllCountries(CountryService countryService) {

LOGGER.info("Start");

List<Country> countries = countryService.getAllCountries();

LOGGER.debug("countries={}", countries);

LOGGER.info("End");

}

}

**Configure application.properties**

src/main/resources/application.properties

spring.datasource.url=jdbc:mysql://localhost:3306/your\_database\_name

spring.datasource.username=your\_username

spring.datasource.password=your\_password

spring.jpa.show-sql=true

spring.jpa.hibernate.ddl-auto=none

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

logging.level.org.hibernate.SQL=debug

Replace your\_database\_name, your\_username, your\_password with your actual values.

**Create MySQL table & insert data**

CREATE TABLE country (

code VARCHAR(2) NOT NULL PRIMARY KEY,

name VARCHAR(100) NOT NULL

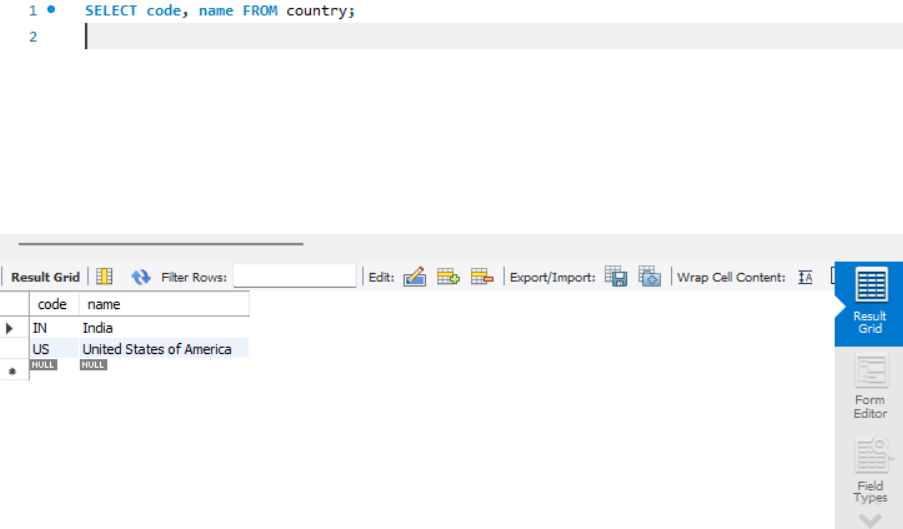
);

INSERT INTO country (code, name) VALUES

('IN', 'India'),

('US', 'United States of America');

**OUTPUT:**



**Query:**

select c1\_0.code,c1\_0.name from country c1\_0

**OUTPUT:**

countries=[Country [code=IN, name=India], Country [code=US, name=United States of America]]