**Name:** Amogh Girish Nagarkar  
**Superset ID:** 6403503

**Hands-on 1: Spring Data JPA – Quick Example**

**Scenario:**

We are building a simple Spring Boot application that uses **Spring Data JPA** to interact with a MySQL database and fetch records from a table named country.

**1. Project Configuration**

**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

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/>

</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>

<properties>

<java.version>17</java.version>

</properties>

<dependencies>

<dependency>

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

<artifactId>spring-boot-starter-data-jpa</artifactId>

</dependency>

<dependency>

<groupId>com.mysql</groupId>

<artifactId>mysql-connector-j</artifactId>

<scope>runtime</scope>

</dependency>

<dependency>

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

<artifactId>spring-boot-devtools</artifactId>

<scope>runtime</scope>

<optional>true</optional>

</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>

**Database Configuration**

spring.datasource.url=jdbc:mysql://localhost:3306/ormlearn

spring.datasource.username=root

spring.datasource.password=root

spring.jpa.hibernate.ddl-auto=update

spring.jpa.show-sql=true

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

logging.level.org.hibernate.SQL=DEBUG

**3. Entity Class**

**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 = "code")

private String code;

@Column(name = "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 + "]";

}

}

**4. Repository Interface**

**CountryRepository.java**

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> {

}

**Main Application Class**

**OrmLearnApplication.java**

package com.cognizant.ormlearn;

import java.util.List;

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

import org.springframework.boot.CommandLineRunner;

import org.springframework.boot.SpringApplication;

import org.springframework.boot.autoconfigure.SpringBootApplication;

import com.cognizant.ormlearn.model.Country;

import com.cognizant.ormlearn.repository.CountryRepository;

@SpringBootApplication

public class OrmLearnApplication implements CommandLineRunner {

@Autowired

private CountryRepository countryRepository;

public static void main(String[] args) {

SpringApplication.run(OrmLearnApplication.class, args);

}

@Override

public void run(String... args) throws Exception {

System.out.println("Start");

List<Country> countries = countryRepository.findAll();

System.out.println("countries=" + countries);

System.out.println("End");

}

}

**SQL Script**

**MySQL Table and Sample Data**

CREATE DATABASE ormlearn;

USE ormlearn;

CREATE TABLE country (

code VARCHAR(2) PRIMARY KEY,

name VARCHAR(100)

);

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

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

**Sample Output**

Start

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

End