**STEP 1: Setup XAMPP and MySQL**

**Created a ormlearn database and inserted values in it :**

**CREATE DATABASE ormlearn;**

CREATE DATABASE ormlearn;

USE ormlearn;

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');

**USE ormlearn;**

**CREATE TABLE country (**

**code VARCHAR(2) PRIMARY KEY,**

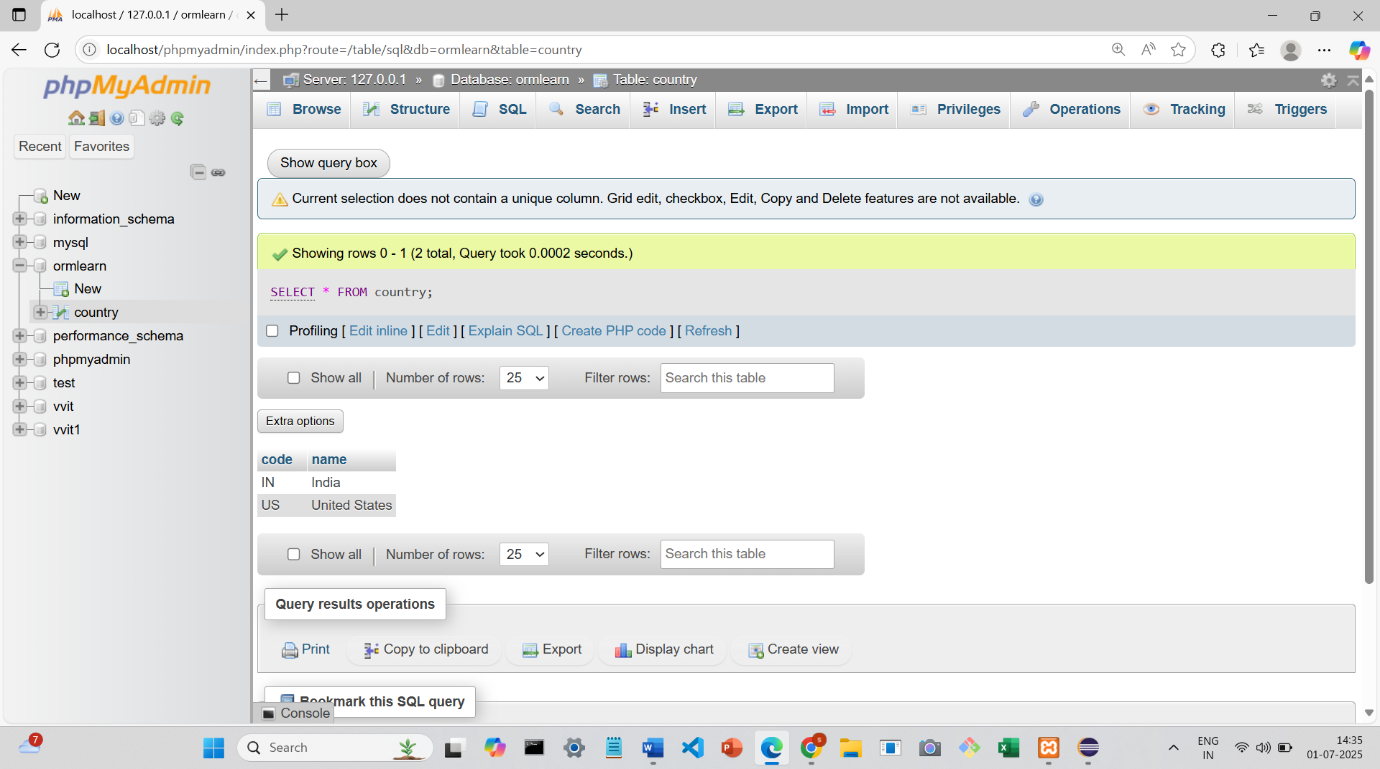
**name VARCHAR(50)**

**);**

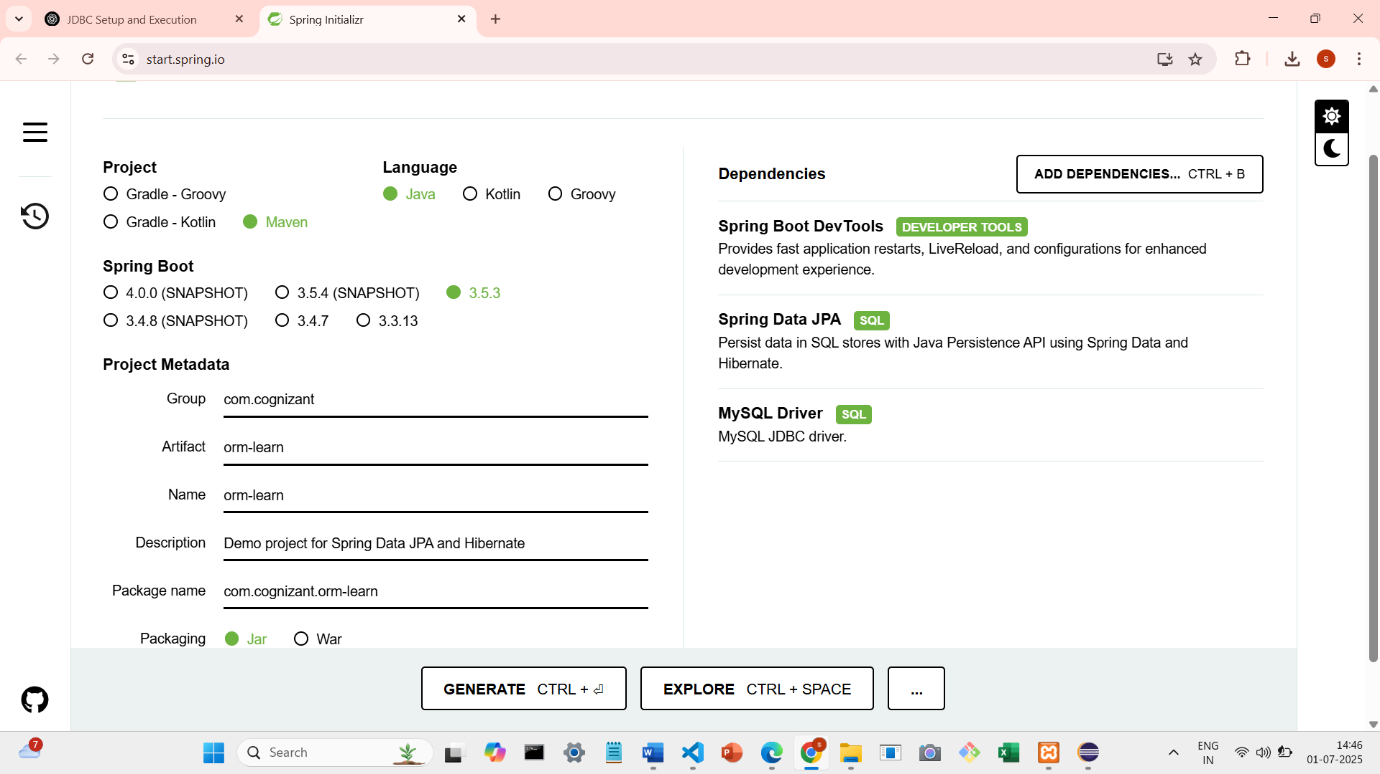
**INSERT INTO country VALUES ('IN', 'India');**

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

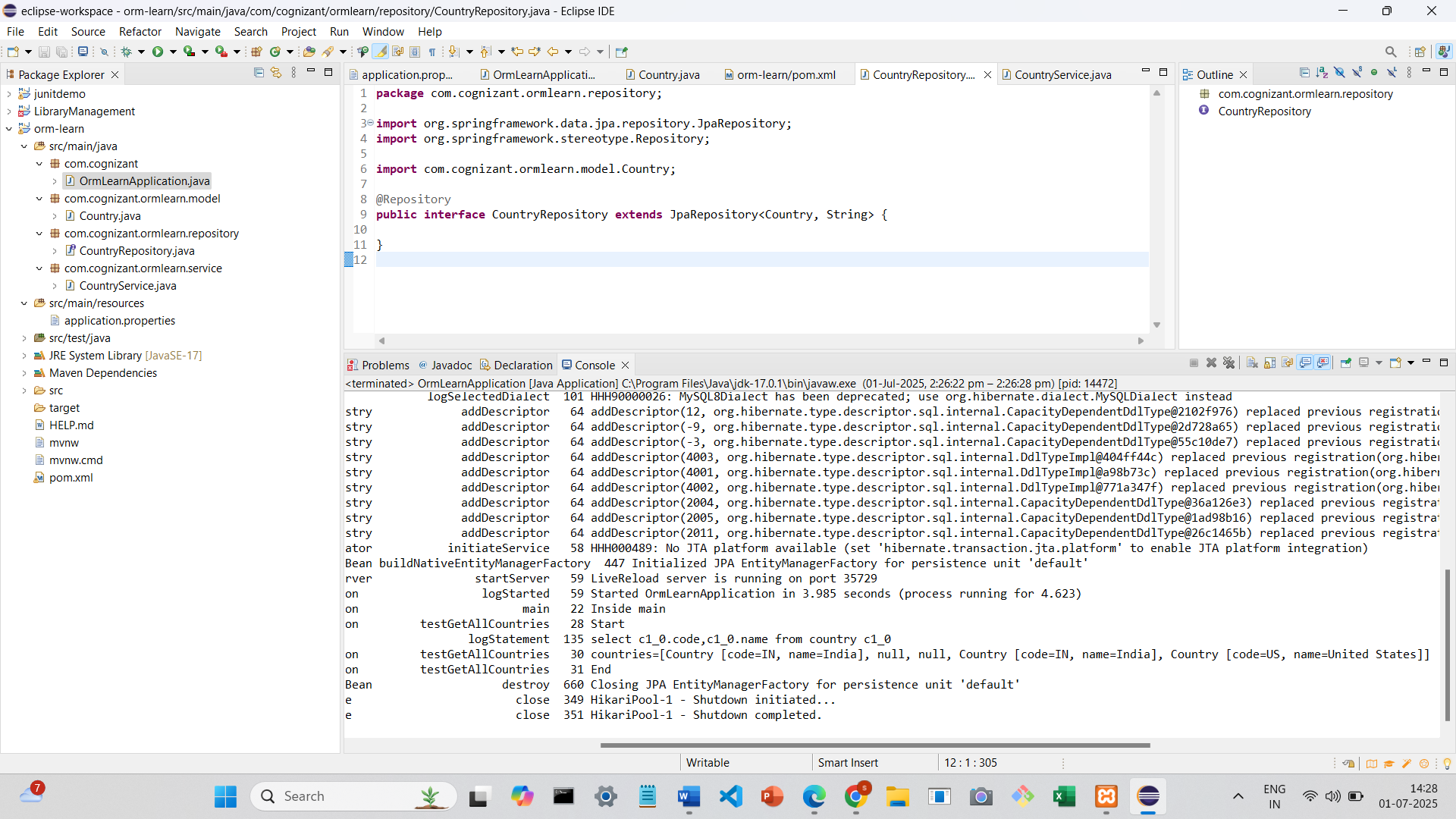
**Output Screenshot:**

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**STEP 2: Create Project with Spring Initializr:**

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**STEP 3: Import into Eclipse**

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**STEP 4: Edit application.properties**

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 HH:mm:ss.SSS} %-20.20thread %5p %-25.25logger{25} %25M %4L %m%n

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=

spring.jpa.hibernate.ddl-auto=validate

spring.jpa.database-platform=org.hibernate.dialect.MySQL8Dialect

**STEP 5: Create Country Model:**

package com.cognizant.ormlearn.model;

import jakarta.persistence.Entity;

import jakarta.persistence.Table;

import jakarta.persistence.Id;

import jakarta.persistence.Column;

@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 + "]";

}

}

**STEP 6: Create Repository:**

**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> {

}

**STEP 7: Create Service:**

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();

}

}

**STEP 8: Update OrmLearnApplication.java**

**package** com.cognizant;

**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");

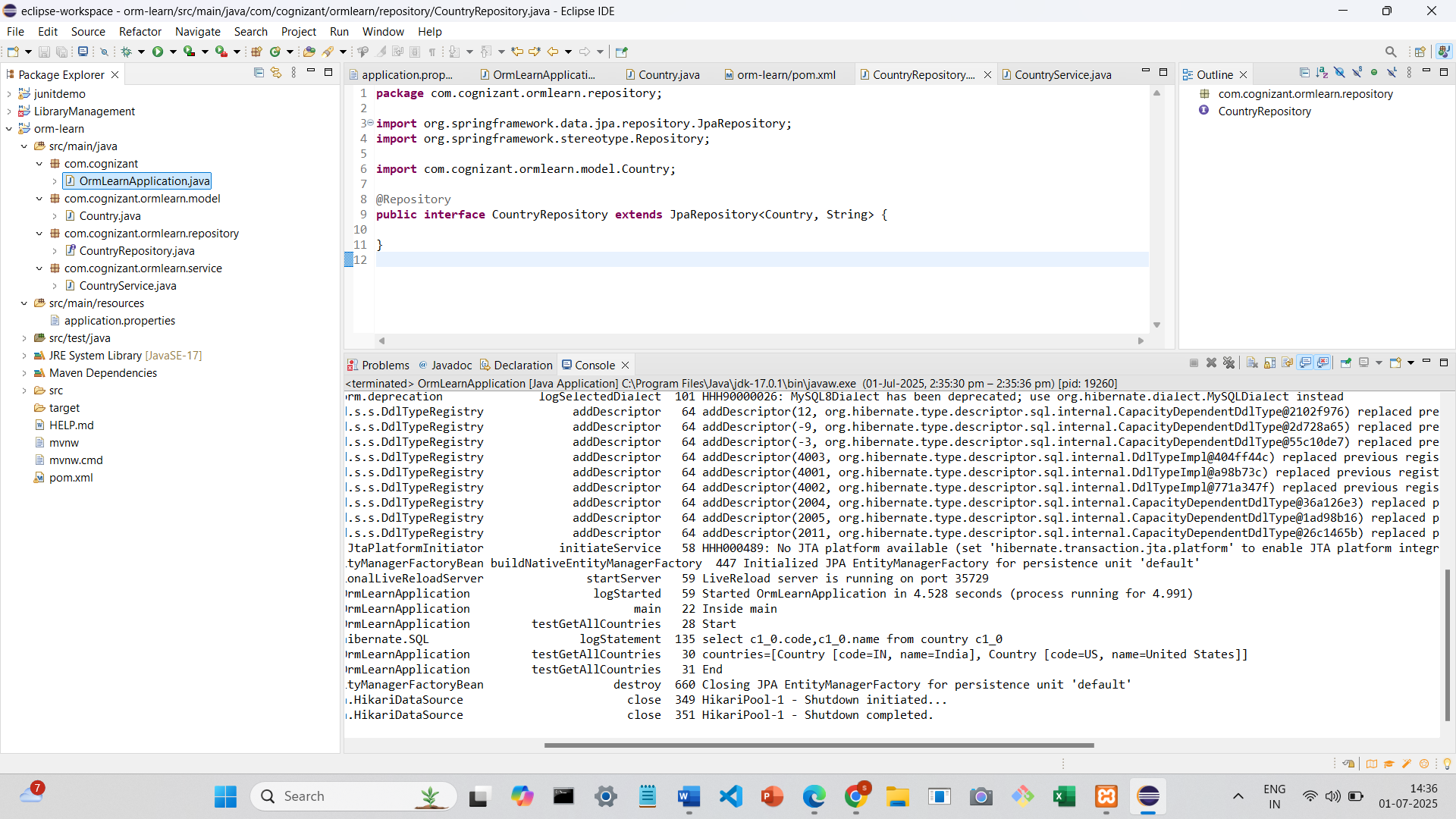
}

}

**What I Did:**

1. **Set up a Spring Boot project** with:
   * Spring Data JPA, MySQL as the database, Hibernate as the ORM provider
2. **Connected to the ormlearn database** using the correct application.properties configuration.
3. **Created a JPA entity** Country mapped to a database table.
4. **Used a repository interface** to interact with the country table (e.g., fetching all records).
5. **Ran the main method**, which executed a method (testGetAllCountries) to retrieve and print the data.

**STEP 9: Run the Application**

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**What I Verified:**

* **Spring Boot application starts without errors.**
* **Hibernate correctly maps the Country entity to the table.**
* **Data was fetched from the MySQL database.**
* **You were able to see meaningful output:**

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

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