Spring Data JPA - Exercise 1: Quick Example

⬛ Objective

Build a Spring Boot application using Spring Data JPA to connect to a MySQL database and fetch data from a Country table.

⬛ Tools Required

- MySQL Server 8.0
- Eclipse IDE or IntelliJ
- Maven 3.6+
- Spring Boot Initializr
- Spring Boot DevTools, Spring Data JPA, MySQL Driver

⬛ Project Setup

1. Create a new Maven project using Spring Initializr (https://start.spring.io/)
2. Group: com.cognizant
3. Artifact: orm-learn
4. Add Dependencies: Spring Boot DevTools, Spring Data JPA, MySQL Driver

⬛ Database Setup

1. Create a schema named `ormlearn`
2. Run:
   CREATE TABLE country (co_code VARCHAR(2) PRIMARY KEY, co_name VARCHAR(50));
   INSERT INTO country VALUES ('IN', 'India'), ('US', 'United States of America');

⬛ application.properties

spring.datasource.url=jdbc:mysql://localhost:3306/ormlearn
spring.datasource.username=root
spring.datasource.password=root
spring.datasource.driver-class-name=com.mysql.cj.jdbc.Driver
spring.jpa.hibernate.ddl-auto=validate
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL5Dialect
logging.level.org.hibernate.SQL=trace
logging.level.org.hibernate.type.descriptor.sql=trace

⬚ Java Classes

1. Entity - Country.java
2. Repository - CountryRepository.java
3. Service - CountryService.java
4. Main - OrmLearnApplication.java

⬚ Flow

OrmLearnApplication -> CountryService.getAllCountries() -> CountryRepository.findAll() ->
Output to Console

✅ Expected Output

Countries: [IN - India, US - United States of America]

⬚ Folder Structure

```
src/
└── main/
    ├── java/
    │   └── com/
    │       └── cognizant/
    │           └── ormlearn/
    │               ├── model/
    │               ├── repository/
    │               ├── service/
    │               └── OrmLearnApplication.java
    └── resources/
        └── application.properties
```