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

**EXERCISE 7: Add a new Country**

**Source Code**

CountryService.java:

package com.himaja.ormlearn.service;

import java.util.Optional;

import javax.transaction.Transactional;

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

import org.springframework.stereotype.Service;

import com.himaja.ormlearn.model.Country;

import com.himaja.ormlearn.repository.CountryRepository;

@Service

public class CountryService {

@Autowired

private CountryRepository countryRepository;

public Country findCountryByCode(String code) throws Exception {

Optional<Country> result = countryRepository.findById(code);

if (!result.isPresent()) {

throw new Exception("Country not found: " + code);

}

return result.get();

}

@Transactional

public void addCountry(Country country) {

countryRepository.save(country);

}

@Transactional

public void updateCountry(String code, String newName) throws Exception {

Optional<Country> optionalCountry = countryRepository.findById(code);

if (!optionalCountry.isPresent()) {

throw new Exception("Country not found: " + code);

}

Country country = optionalCountry.get();

country.setName(newName);

countryRepository.save(country);

}

}

OrmLearnApplication.java:

package com.himaja.ormlearn;

import com.himaja.ormlearn.model.Country;

import com.himaja.ormlearn.service.CountryService;

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;

@SpringBootApplication

public class OrmLearnApplication {

private static final Logger LOGGER = LoggerFactory.getLogger(OrmLearnApplication.class);

private static CountryService countryService;

public static void main(String[] args) throws Exception {

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

countryService = context.getBean(CountryService.class);

LOGGER.info("Inside main");

testAddCountry();

testUpdateCountry();

}

private static void testAddCountry() throws Exception {

LOGGER.info("Start testAddCountry");

Country newCountry = new Country();

newCountry.setCode("XY");

newCountry.setName("Xyzland");

countryService.addCountry(newCountry);

Country addedCountry = countryService.findCountryByCode("XY");

LOGGER.debug("Added Country: {}", addedCountry);

LOGGER.info("End testAddCountry");

}

private static void testUpdateCountry() throws Exception {

LOGGER.info("Start testUpdateCountry");

countryService.updateCountry("XY", "Xyz Republic");

Country updatedCountry = countryService.findCountryByCode("XY");

LOGGER.debug("Updated Country: {}", updatedCountry);

LOGGER.info("End testUpdateCountry");

}

}

**Output**

