

Additional Hands-on: Find a country based on country code

Code:

CountryNotFoundException.java

```
package com.cognizant.orm_learn.service.exception;

public class CountryNotFoundException extends Exception {
    public CountryNotFoundException(String message) {
        super(message);
    }
}
```

CountryService.java

```
package com.cognizant.orm_learn.service;

import com.cognizant.orm_learn.model.Country;
import com.cognizant.orm_learn.repository.CountryRepository;
import com.cognizant.orm_learn.service.exception.CountryNotFoundException;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import org.springframework.transaction.annotation.Transactional;

import java.util.List;
import java.util.Optional;

@Service
public class CountryService {

    @Autowired
    private CountryRepository countryRepository;

    @Transactional
    public List<Country> getAllCountries() {
        return countryRepository.findAll();
    }

    @Transactional
    public Country findCountryByCode(String countryCode) throws
CountryNotFoundException {
        Optional<Country> result = countryRepository.findById(countryCode);
```

```

        if (!result.isPresent()) {
            throw new CountryNotFoundException("Country with code " +
countryCode + " not found");
        }
        return result.get();
    }
}

```

OrmApplication.java(Main.java):

```

package com.cognizant.orm_learn;

import com.cognizant.orm_learn.model.Country;
import com.cognizant.orm_learn.service.CountryService;
import com.cognizant.orm_learn.service.exception.CountryNotFoundException;
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) {
        ApplicationContext context =
SpringApplication.run(OrmLearnApplication.class, args);
        countryService = context.getBean(CountryService.class);

        testFindCountryByCode();
    }

    private static void testFindCountryByCode() {
        LOGGER.info("Start");
        try {
            Country country = countryService.findCountryByCode("IN");
            LOGGER.debug("Country: {}", country);
        } catch (CountryNotFoundException e) {
            LOGGER.error("Error: {}", e.getMessage());
        }
        LOGGER.info("End");
    }
}

```

OutPut:

The screenshot displays an IDE window for a project named 'orm-learn'. The left sidebar shows the project structure, including the 'src' directory and its sub-packages: 'com.cognizant.orm_learn', 'model', 'repository', 'service', 'exception', 'resources', and 'test'. The main editor area shows the 'OrmLearnApplication.java' file, which is a Spring Boot application. The code includes imports for 'Country', 'CountryService', 'CountryNotFoundException', 'Logger', 'LoggerFactory', 'SpringApplication', 'SpringBootApplication', and 'ApplicationContext'. The main method is annotated with '@SpringBootApplication' and contains a 'main' method that sets up the application context and retrieves the 'CountryService' bean. The bottom panel shows the 'Run' output, which includes logs for the application's startup, a test failure, and the shutdown process.

```
package com.cognizant.orm_learn;

import com.cognizant.orm_learn.model.Country;
import com.cognizant.orm_learn.service.CountryService;
import com.cognizant.orm_learn.service.exception.CountryNotFoundException;
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 LOGGGER = LoggerFactory.getLogger(OrmLearnApplication.class);
    private static CountryService countryService;

    public static void main(String[] args) {
        ApplicationContext context = SpringApplication.run(OrmLearnApplication.class, args);
        countryService = context.getBean(CountryService.class);
    }
}
```

Run OrmLearnApplication

```
06-07-25 15:33:30.659 restartedMain INFO c.c.o.OrmLearnApplication testFindCountryByCode 26 Start
06-07-25 15:33:30.669 restartedMain DEBUG org.hibernate.SQL logStatement 135 select c1_0.co_code,c1_0.co_name from country c1_0 where c1_0.co_c
06-07-25 15:33:30.678 restartedMain ERROR c.c.o.OrmLearnApplication testFindCountryByCode 31 Error: Country with code IN not found
06-07-25 15:33:30.678 restartedMain INFO c.c.o.OrmLearnApplication testFindCountryByCode 33 End
06-07-25 15:33:30.680 locationShutdownHook INFO rEntityManagerFactoryBean destroy 660 Closing JPA EntityManagerFactory for persistence unit 'default'
06-07-25 15:33:30.682 locationShutdownHook INFO c.z.h.HikariDataSource close 349 HikariPool-1 - Shutdown initiated...
06-07-25 15:33:30.684 locationShutdownHook INFO c.z.h.HikariDataSource close 351 HikariPool-1 - Shutdown completed.

Process finished with exit code 0
```