**Hands on Exercise 1 - Write queries on country table using Query Methods**

**CODE:**

**Country Class: -**

package com.cognizant.ex2handson1.model;  
import jakarta.persistence.Entity;  
import jakarta.persistence.Id;  
import jakarta.persistence.Table;  
  
@Entity  
@Table(name = "country")  
public class Country {  
 @Id  
 private String code;  
 private String name;  
 public Country(){}  
  
 public Country(String code, String name) {  
 this.code = code;  
 this.name = 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;  
 }  
}

**CountryRepository Interface: -**

package com.cognizant.ex2handson1.repository;  
import com.cognizant.ex2handson1.model.Country;  
import org.springframework.data.jpa.repository.JpaRepository;  
  
import java.util.List;  
public interface CountryRepository extends JpaRepository<Country,String> {  
 List<Country> findByNameContainingIgnoreCase(String keyword);  
 List<Country> findByNameContainingIgnoreCaseOrderByNameAsc(String keyword);  
 List<Country> findByNameStartingWithIgnoreCase(String prefix);  
}

**CountryService Class: -**

package com.cognizant.ex2handson1.service;  
import com.cognizant.ex2handson1.model.Country;  
import com.cognizant.ex2handson1.repository.CountryRepository;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.stereotype.Service;  
import java.util.List;  
  
@Service  
public class CountryService {  
 @Autowired  
 private CountryRepository countryRepository;  
 public List<Country> searchByName(String keyword) {  
 return countryRepository.findByNameContainingIgnoreCase(keyword);  
 }  
 public List<Country> searchByNameSorted(String keyword) {  
 return countryRepository.findByNameContainingIgnoreCaseOrderByNameAsc(keyword);  
 }  
 public List<Country> searchByStartingLetter(String letter) {  
 return countryRepository.findByNameStartingWithIgnoreCase(letter);  
 }  
}

**application.properties file: -**

spring.application.name=ex2handson1  
# Database Configuration (example uses MySQL)  
spring.datasource.url=jdbc:mysql://localhost:3306/ormlearn  
spring.datasource.username=root  
spring.datasource.password=Sreddy@11  
  
# Hibernate Configuration  
spring.jpa.show-sql=true  
spring.jpa.hibernate.ddl-auto=none  
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL8Dialect

**Main Class: -**

package com.cognizant.ex2handson1;  
import com.cognizant.ex2handson1.model.Country;  
import com.cognizant.ex2handson1.service.CountryService;  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
import org.springframework.context.ApplicationContext;  
import java.util.List;  
  
@SpringBootApplication  
public class Ex2handson1Application {  
  
 public static void main(String[] args) {  
 ApplicationContext context= SpringApplication.*run*(Ex2handson1Application.class, args);  
 CountryService countryService=(CountryService) context.getBean("countryService");  
 System.*out*.println("Countries containing 'ou':");  
 List<Country> result1 = countryService.searchByName("ou");  
 result1.forEach(c -> System.*out*.println(c.getCode() + "\t" + c.getName()));  
  
 System.*out*.println("\nCountries containing 'ou' (sorted):");  
 List<Country> result2 = countryService.searchByNameSorted("ou");  
 result2.forEach(c -> System.*out*.println(c.getCode() + "\t" + c.getName()));  
  
 System.*out*.println("\nCountries starting with 'Z':");  
 List<Country> result3 = countryService.searchByStartingLetter("Z");  
 result3.forEach(c -> System.*out*.println(c.getCode() + "\t" + c.getName()));  
 }  
  
}

**OUTPUT:**

