**Exercise 3: Employee Management System - Creating Repositories**

**Business Scenario:**

Create repositories for Employee and Department entities to perform CRUD operations.

**Instructions:**

1. **Overview of Spring Data Repositories:**
   * Learn the benefits of using Spring Data repositories.
2. **Creating Repositories:**
   * Create **EmployeeRepository** and **DepartmentRepository** interfaces extending **JpaRepository**.
   * Define derived query methods in these repositories.

## Answer:

1. Benefits of Spring Data Repositories:   
 - Simplifies data access layer implementation by providing generic CRUD operation methods.  
 - Allows for defining query methods using method names, reducing the need for complex queries.  
 - Supports pagination, sorting, and custom query execution.  
  
2. EmployeeRepository Interface:   
   
 import org.springframework.data.jpa.repository.JpaRepository;  
  
 public interface EmployeeRepository extends JpaRepository<Employee, Long> {  
 // Derived query methods can be defined here  
 }  
   
  
3. DepartmentRepository Interface:   
   
 import org.springframework.data.jpa.repository.JpaRepository;  
  
 public interface DepartmentRepository extends JpaRepository<Department, Long> {  
 // Derived query methods can be defined here  
 }  
   
  
4. Derived Query Methods:   
 - Derived query methods are automatically implemented by Spring Data JPA based on method names.  
 - Example:   
   
 List<Employee> findByDepartmentName(String departmentName);  
   
 This method would find all employees belonging to a department with the specified name.