**EXERCISE 7**

*ENTITY AUDITING*

package com.example.EmployeeManagementSystem.config;

import org.springframework.context.annotation.Configuration;

import org.springframework.data.jpa.repository.config.EnableJpaAuditing;

@Configuration

@EnableJpaAuditing

public class AuditingConfig {

// Additional configuration if needed

}

Implementing AuditorAware interface

package com.example.EmployeeManagementSystem.config;

import org.springframework.context.annotation.Bean;

import org.springframework.data.domain.AuditorAware;

import org.springframework.data.jpa.repository.config.EnableJpaAuditing;

import org.springframework.stereotype.Component;

import java.util.Optional;

@Component

public class AuditorAwareImpl implements AuditorAware<String> {

@Override

public Optional<String> getCurrentAuditor() {

// Return the current user, for example, using Spring Security

// For simplicity, we'll return a static username here

return Optional.of("system\_user");

}

}

*ADDING ANNOTATIONS TO ENTITIES*#employee entity

package com.example.EmployeeManagementSystem.model;

import lombok.Data;

import org.springframework.data.annotation.CreatedBy;

import org.springframework.data.annotation.CreatedDate;

import org.springframework.data.annotation.LastModifiedBy;

import org.springframework.data.annotation.LastModifiedDate;

import javax.persistence.\*;

import java.time.LocalDateTime;

@Data

@Entity

@Table(name = "employees")

public class Employee {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private Long id;

@Column(nullable = false)

private String name;

@Column(nullable = false, unique = true)

private String email;

@ManyToOne

@JoinColumn(name = "department\_id")

private Department department;

@CreatedBy

@Column(updatable = false)

private String createdBy;

@CreatedDate

@Column(updatable = false)

private LocalDateTime createdDate;

@LastModifiedBy

private String lastModifiedBy;

@LastModifiedDate

private LocalDateTime lastModifiedDate;

}

#Department entity

package com.example.EmployeeManagementSystem.model;

import lombok.Data;

import org.springframework.data.annotation.CreatedBy;

import org.springframework.data.annotation.CreatedDate;

import org.springframework.data.annotation.LastModifiedBy;

import org.springframework.data.annotation.LastModifiedDate;

import javax.persistence.\*;

import java.time.LocalDateTime;

@Data

@Entity

@Table(name = "departments")

public class Department {

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private Long id;

@Column(nullable = false, unique = true)

private String name;

@CreatedBy

@Column(updatable = false)

private String createdBy;

@CreatedDate

@Column(updatable = false)

private LocalDateTime createdDate;

@LastModifiedBy

private String lastModifiedBy;

@LastModifiedDate

private LocalDateTime lastModifiedDate;

}