**SKG\_WEB\_LAB\_EMPLOYEE\_JPA**

**Employee:**

package com.examly.springapp.model;

import java.util.Date;

import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Temporal;

import javax.persistence.TemporalType;

@Entity

public class Employee

{

@Id

@GeneratedValue(strategy = GenerationType.IDENTITY)

private int id;

private String name;

private String address;

private String phoneNumber;

private String email;

private String jobTitle;

private String department;

private double salary;

@Temporal(TemporalType.DATE)

private Date hireDate;

public Employee() {

}

public Employee(int id, String name, String address, String phoneNumber, String email, String jobTitle,

String department, double salary, Date hireDate) {

this.id = id;

this.name = name;

this.address = address;

this.phoneNumber = phoneNumber;

this.email = email;

this.jobTitle = jobTitle;

this.department = department;

this.salary = salary;

this.hireDate = hireDate;

}

public int getId() {

return id;

}

public void setId(int id) {

this.id = id;

}

public String getName() {

return name;

}

public void setName(String name) {

this.name = name;

}

public String getAddress() {

return address;

}

public void setAddress(String address) {

this.address = address;

}

public String getPhoneNumber() {

return phoneNumber;

}

public void setPhoneNumber(String phoneNumber) {

this.phoneNumber = phoneNumber;

}

public String getEmail() {

return email;

}

public void setEmail(String email) {

this.email = email;

}

public String getJobTitle() {

return jobTitle;

}

public void setJobTitle(String jobTitle) {

this.jobTitle = jobTitle;

}

public String getDepartment() {

return department;

}

public void setDepartment(String department) {

this.department = department;

}

public double getSalary() {

return salary;

}

public void setSalary(double salary) {

this.salary = salary;

}

public Date getHireDate() {

return hireDate;

}

public void setHireDate(Date hireDate) {

this.hireDate = hireDate;

}

}

**EmployeeController:**

package com.examly.springapp.controller;

import java.util.Date;

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

import org.springframework.http.HttpStatus;

import org.springframework.http.ResponseEntity;

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.PathVariable;

import org.springframework.web.bind.annotation.PostMapping;

import org.springframework.web.bind.annotation.RequestBody;

import org.springframework.web.bind.annotation.RestController;

import com.examly.springapp.model.Employee;

import com.examly.springapp.service.EmployeeService;

@RestController

public class EmployeeController

{

@Autowired

private EmployeeService es;

@PostMapping("/employee")

public ResponseEntity<?> postd(@RequestBody Employee emp)

{

try

{

return new ResponseEntity<>(es.postd(emp),HttpStatus.CREATED);

}catch(Exception e)

{

return new ResponseEntity<>(HttpStatus.INTERNAL\_SERVER\_ERROR);

}

}

@GetMapping("/employee")

public ResponseEntity<?> getd()

{

try

{

return new ResponseEntity<>(es.getd(),HttpStatus.OK);

}catch(Exception e)

{

return new ResponseEntity<>(HttpStatus.NOT\_FOUND);

}

}

@GetMapping("/employee/{id}")

public ResponseEntity<?> gettd(@PathVariable int id)

{

try

{

return new ResponseEntity<>(es.gettd(id),HttpStatus.OK);

}catch(Exception e)

{

return new ResponseEntity<>(HttpStatus.NOT\_FOUND);

}

}

@GetMapping("/employee/hired/{hireDate}")

public ResponseEntity<?> getttd(@PathVariable String hireDate)

{

try

{

return new ResponseEntity<>(es.getttd(hireDate),HttpStatus.OK);

}catch(Exception e)

{

return new ResponseEntity<>(HttpStatus.NOT\_FOUND);

}

}

@GetMapping("/employee/first-three-characters-of-name")

public ResponseEntity<?> gettttd()

{

try

{

return new ResponseEntity<>(es.gettttd(),HttpStatus.OK);

}catch(Exception e)

{

return new ResponseEntity<>(HttpStatus.NOT\_FOUND);

}

}

}

**EmployeeRepo:**

package com.examly.springapp.repository;

import java.util.Date;

import java.util.List;

import org.springframework.data.jpa.repository.JpaRepository;

import org.springframework.data.jpa.repository.Query;

import com.examly.springapp.model.Employee;

public interface EmployeeRepo extends JpaRepository<Employee,Integer>

{

List<Employee> findByHireDate(Date hireDates);

@Query("SELECT SUBSTRING(e.name, 1, 3) FROM Employee e")

List<String> findFirstThreeCharactersOfAllNames();

}

**EmployeeService:**

package com.examly.springapp.service;

import java.text.ParseException;

import java.text.SimpleDateFormat;

import java.util.Date;

import java.util.List;

import java.util.Optional;

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

import org.springframework.stereotype.Service;

import com.examly.springapp.model.Employee;

import com.examly.springapp.repository.EmployeeRepo;

@Service

public class EmployeeService {

@Autowired

private EmployeeRepo er;

public Employee postd(Employee emp) {

return er.save(emp);

}

public List<Employee> getd() {

return er.findAll();

}

public Optional<Employee> gettd(int id) {

return er.findById(id);

}

public List<Employee> getttd(String hireDate) throws ParseException {

Date hireDates = new SimpleDateFormat("yyyy-MM-dd").parse(hireDate);

return er.findByHireDate(hireDates);

}

public List<String> gettttd() {

return er.findFirstThreeCharactersOfAllNames();

}

}

**OUTPUT:**

