**Spring RestAPI Assignment**

**EmpAPI.java**

package com.verizon.bsa.restapi;

import java.util.List;

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

import org.springframework.http.HttpStatus;

import org.springframework.http.ResponseEntity;

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

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

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.PutMapping;

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

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

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

import com.verizon.bsa.model.Employee;

import com.verizon.bsa.service.EmpService;

@RestController

@CrossOrigin

@RequestMapping("/emps")

public class EmpAPI {

@Autowired

private EmpService empService;

@GetMapping

public ResponseEntity<List<Employee>> listEmpAction() {

ResponseEntity<List<Employee>> empsRep = new ResponseEntity<List<Employee>>(empService.getAllEmps(), HttpStatus.OK);

return empsRep;

}

@GetMapping("/{empid}")

public ResponseEntity<Employee> getEmpAction(@PathVariable("empid") int empid) {

ResponseEntity<Employee> resp = null;

Employee b = empService.getEmpById(empid);

if (b == null) {

resp = new ResponseEntity<Employee>(HttpStatus.NOT\_FOUND);

} else {

resp = new ResponseEntity<Employee>(b, HttpStatus.OK);

}

return resp;

}

@DeleteMapping("/{empid}")

public ResponseEntity<Void> deleteEmpAction(@PathVariable("empid") int empid) {

ResponseEntity<Void> resp = null;

boolean isDeleted = empService.deleteEmpById(empid);

if (!isDeleted) {

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

} else {

resp = new ResponseEntity<>(HttpStatus.OK);

}

return resp;

}

@PostMapping

public ResponseEntity<Employee> addEmpAction(@RequestBody Employee emp) {

ResponseEntity<Employee> resp = null;

emp = empService.addEmp(emp);

if (emp != null) {

resp = new ResponseEntity<>(emp, HttpStatus.OK);

} else {

resp = new ResponseEntity<>(emp, HttpStatus.BAD\_REQUEST);

}

return resp;

}

@PutMapping

public ResponseEntity<Employee> updateEmpAction(@RequestBody Employee emp) {

ResponseEntity<Employee> resp = null;

if (empService.getEmpById(emp.getEmpId()) == null) {

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

} else {

emp = empService.updateEmp(emp);

if (emp != null)

resp = new ResponseEntity<>(emp, HttpStatus.OK);

else

resp = new ResponseEntity<>(HttpStatus.BAD\_REQUEST);

}

return resp;

}

}

**Employee.java**

**package** com.verizon.bsa.model;

**public** **class** Employee {

**private** **int** empId;

**private** String empname;

**private** **double** basic;

**private** **double** hra;

**private** String dept;

**public** Employee() {

}

**public** Employee(**int** empId, String empname, **double** basic,**double** hra, String dept) {

**super**();

**this**.empId=empId;

**this**.empname=empname;

**this**.basic=basic;

**this**.hra=hra;

**this**.dept=dept;

}

**public** **int** getEmpId() {

**return** empId;

}

**public** **void** setEmpId(**int** empId) {

**this**.empId = empId;

}

**public** String getEmpname() {

**return** empname;

}

**public** **void** setEmpname(String empname) {

**this**.empname = empname;

}

**public** **double** getBasic() {

**return** basic;

}

**public** **void** setBasic(**double** basic) {

**this**.basic = basic;

}

**public** **double** getHra() {

**return** hra;

}

**public** **void** setHra(**double** hra) {

**this**.hra = hra;

}

**public** String getDept() {

**return** dept;

}

**public** **void** setDept(String dept) {

**this**.dept = dept;

}

}

**EmpDAOJdbcTemplate.java**

package com.verizon.bsa.dao;

import java.util.List;

import javax.sql.DataSource;

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

import org.springframework.jdbc.core.JdbcTemplate;

import org.springframework.stereotype.Repository;

import com.verizon.bsa.model.Employee;

@Repository

public class EmpDAOJdbcTemplate implements EmpDao {

private JdbcTemplate jdbcTemplate;

@Autowired

public EmpDAOJdbcTemplate(DataSource dataSource) {

this.jdbcTemplate=new JdbcTemplate(dataSource);

}

@Override

public Employee addEmp(Employee emp) {

int count=jdbcTemplate.update(IQueryMapper.INS\_EMP\_QRY,

emp.getEmpId(),

emp.getEmpname(),

emp.getBasic(),

emp.getHra(),

emp.getDept()

);

if(count<1) {

emp=null;

}

// TODO Auto-generated method stub

return emp;

}

@Override

public Employee updateEmp(Employee emp) {

int count=jdbcTemplate.update(IQueryMapper.UPDATE\_EMP\_QRY,

emp.getEmpname(),

emp.getBasic(),

emp.getHra(),

emp.getDept(),

emp.getEmpId()

);

if(count<1) {

emp=null;

}

// TODO Auto-generated method stub

return emp;

}

@Override

public Employee getEmpById(int empid) {

List<Employee> emps =jdbcTemplate.query(IQueryMapper.GET\_EMP\_QRY,

new Object[] {empid},

new EmpRowMapper());

Employee emp =null;

if(emps!=null && emps.size()==1) {

emp=emps.get(0);

}

return emp;

}

@Override

public boolean deleteEmpById(int empid) {

boolean isdeleted=false;

int count=jdbcTemplate.update(IQueryMapper.DEL\_EMP\_QRY,empid);

if(count>=1) {

isdeleted=true;

}

return isdeleted;

}

@Override

public List<Employee> getAllEmps() {

List<Employee> emps =jdbcTemplate.query(IQueryMapper.GET\_ALL\_EMP\_QRY,

new EmpRowMapper());

return emps;

}

}

**EmpRowMapper.java**

package com.verizon.bsa.dao;

import java.sql.ResultSet;

import java.sql.SQLException;

import org.springframework.jdbc.core.RowMapper;

import com.verizon.bsa.model.Employee;

public class EmpRowMapper implements RowMapper<Employee> {

@Override

public Employee mapRow(ResultSet rs, int rownum) throws SQLException{

Employee emp=new Employee();

emp.setEmpId(rs.getInt(1));

emp.setEmpname(rs.getString(2));

emp.setBasic(rs.getDouble(3));

emp.setHra(rs.getDouble(4));

emp.setDept(rs.getString(5));

return emp;

}

}

**IQueryMapper.java**

**package** com.verizon.bsa.dao;

**public** **interface** IQueryMapper {

**public** **static** **final** String ***INS\_EMP\_QRY***=

"INSERT INTO employee VALUES(?,?,?,?,?)";

**public** **static** **final** String ***DEL\_EMP\_QRY***=

"DELETE FROM employee WHERE empId=?";

**public** **static** **final** String ***UPDATE\_EMP\_QRY***=

"UPDATE employee SET empname=?,basic=?,hra=?,dept=? WHERE empId=?";

**public** **static** **final** String ***GET\_EMP\_QRY***=

"SELECT \* FROM employee WHERE empId=?";

**public** **static** **final** String ***GET\_ALL\_EMP\_QRY***=

"SELECT \* FROM employee";

}

**Outputs:**







