**Problem Statement - Display Employee List and Edit Employee form using RESTful Web Service**

**SpringLearnApplication.java :-**

package com.cognizant.spring\_learn;  
  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
  
@SpringBootApplication  
public class SpringLearnApplication {  
  
 public static void main(String[] args) {  
 SpringApplication.*run*(SpringLearnApplication.class, args);  
 }  
  
}

**EmployeeService.java :-**

package com.cognizant.spring\_learn.service;  
  
import com.cognizant.spring\_learn.model.Employee;  
import org.springframework.beans.factory.annotation.Value;  
import org.springframework.context.ApplicationContext;  
import org.springframework.context.support.ClassPathXmlApplicationContext;  
import org.springframework.stereotype.Service;  
  
import java.util.List;  
  
@Service  
public class EmployeeService {  
 ApplicationContext context = new ClassPathXmlApplicationContext("employee.xml");  
  
 public List<Employee> getAllEmployees() {  
 return (List<Employee>) context.getBean("employeeList");  
 }  
  
 public Employee getEmployeeById(int id) {  
 List<Employee> employees = getAllEmployees();  
 return employees.stream()  
 .filter(emp -> emp.getId() == id)  
 .findFirst()  
 .orElse(null);  
 }  
}

**Employee.java :-**

package com.cognizant.spring\_learn.model;  
  
public class Employee {  
 private int id;  
 private String name;  
 private String department;  
 private double salary;  
  
 public Employee() {}  
  
 public Employee(int id, String name, String department, double salary) {  
 this.id = id;  
 this.name = name;  
 this.department = department;  
 this.salary = salary;  
 }  
  
 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 getDepartment() {  
 return department;  
 }  
  
 public void setDepartment(String department) {  
 this.department = department;  
 }  
  
 public double getSalary() {  
 return salary;  
 }  
  
 public void setSalary(double salary) {  
 this.salary = salary;  
 }  
  
 // Getters and Setters  
}

EmployeeSerive.java :-

package com.cognizant.spring\_learn.controller;  
  
import com.cognizant.spring\_learn.model.Employee;  
import com.cognizant.spring\_learn.service.EmployeeService;  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.web.bind.annotation.\*;  
  
import java.util.List;  
  
@RestController  
@CrossOrigin("http://localhost:4200") // for Angular access  
@RequestMapping("/api/employees")  
public class EmployeeController {  
  
 @Autowired  
 private EmployeeService service;  
  
 @GetMapping  
 public List<Employee> getAllEmployees() {  
 return service.getAllEmployees();  
 }  
  
 @GetMapping("/{id}")  
 public Employee getEmployeeById(@PathVariable int id) {  
 return service.getEmployeeById(id);  
 }  
}

**pom.xml :-**

<?xml version="1.0" encoding="UTF-8"?>  
<project xmlns="http://maven.apache.org/POM/4.0.0" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="http://maven.apache.org/POM/4.0.0 https://maven.apache.org/xsd/maven-4.0.0.xsd">  
 <modelVersion>4.0.0</modelVersion>  
 <parent>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-parent</artifactId>  
 <version>3.5.3</version>  
 <relativePath/> <!-- lookup parent from repository -->  
 </parent>  
 <groupId>com.cognizant</groupId>  
 <artifactId>spring\_learn</artifactId>  
 <version>0.0.1-SNAPSHOT</version>  
 <name>spring\_learn</name>  
 <description>Demo project for Spring Boot</description>  
 <url/>  
 <licenses>  
 <license/>  
 </licenses>  
 <developers>  
 <developer/>  
 </developers>  
 <scm>  
 <connection/>  
 <developerConnection/>  
 <tag/>  
 <url/>  
 </scm>  
 <properties>  
 <java.version>21</java.version>  
 </properties>  
 <dependencies>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-web</artifactId>  
 </dependency>  
  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-test</artifactId>  
 <scope>test</scope>  
 </dependency>  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-web</artifactId>  
 </dependency>  
  
 <!-- Spring Context for XML Configuration -->  
 <dependency>  
 <groupId>org.springframework</groupId>  
 <artifactId>spring-context</artifactId>  
 </dependency>  
  
 <!-- For Hot Reload (Optional) -->  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-devtools</artifactId>  
 <scope>runtime</scope>  
 <optional>true</optional>  
 </dependency>  
  
 <!-- Test Support -->  
 <dependency>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-starter-test</artifactId>  
 <scope>test</scope>  
 </dependency>  
 </dependencies>  
  
 <build>  
 <plugins>  
 <plugin>  
 <groupId>org.springframework.boot</groupId>  
 <artifactId>spring-boot-maven-plugin</artifactId>  
 </plugin>  
 </plugins>  
 </build>  
  
</project>

**Employee.xml :-**

<beans xmlns="http://www.springframework.org/schema/beans"  
 xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
 xsi:schemaLocation="http://www.springframework.org/schema/beans  
 http://www.springframework.org/schema/beans/spring-beans.xsd">  
  
 <bean id="employee1" class="com.cognizant.spring\_learn.model.Employee">  
 <constructor-arg value="1"/>  
 <constructor-arg value="Naresh"/>  
 <constructor-arg value="IT"/>  
 <constructor-arg value="45000"/>  
 </bean>  
  
 <bean id="employee2" class="com.cognizant.spring\_learn.model.Employee">  
 <constructor-arg value="2"/>  
 <constructor-arg value="Ravi"/>  
 <constructor-arg value="HR"/>  
 <constructor-arg value="40000"/>  
 </bean>  
  
 <bean id="employeeList" class="java.util.ArrayList">  
 <constructor-arg>  
 <list>  
 <ref bean="employee1"/>  
 <ref bean="employee2"/>  
 </list>  
 </constructor-arg>  
 </bean>  
  
</beans>

Output :-





