SPRING REST HANDS ON 3

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1) Hands on 1: Create static employee list data using spring xml configuration

Solution:

//employee.xml

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="
    http://www.springframework.org/schema/beans
    https://www.springframework.org/schema/beans/spring-beans.xsd">
  <bean id="dept1" class="com.cognizant.springlearn.Department">
    property name="id" value="1"/>
    property name="name" value="HR"/>
  </bean>
  <bean id="dept2" class="com.cognizant.springlearn.Department">
    property name="id" value="2"/>
    property name="name" value="IT"/>
  </bean>
  <bean id="dept3" class="com.cognizant.springlearn.Department">
    cproperty name="id" value="3"/>
    property name="name" value="Finance"/>
  </bean>
  <bean id="emp1" class="com.cognizant.springlearn.Employee">
    property name="id" value="101"/>
    cproperty name="name" value="John Doe"/>
```

```
property name="department" ref="dept1"/>
  </bean>
  <bean id="emp2" class="com.cognizant.springlearn.Employee">
    property name="id" value="102"/>
    cproperty name="name" value="Jane Smith"/>
    property name="department" ref="dept2"/>
  </bean>
  <bean id="emp3" class="com.cognizant.springlearn.Employee">
    property name="id" value="103"/>
    cproperty name="name" value="Alex Johnson"/>
    cproperty name="department" ref="dept3"/>
  </bean>
  <bean id="empList" class="java.util.ArrayList">
    <constructor-arg>
      t>
         <ref bean="emp1"/>
         <ref bean="emp2"/>
         <ref bean="emp3"/>
      </list>
    </constructor-arg>
  </bean>
</beans>
//EmployeeDao.java
package com.cognizant.springlearn.dao;
import com.cognizant.springlearn.Employee;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.stereotype.Component;
import java.util.ArrayList;
@Component
```

```
public class EmployeeDao {
    private static ArrayList<Employee> EMPLOYEE_LIST;
    public EmployeeDao() {
        ApplicationContext context = new ClassPathXmlApplicationContext("employee.xml");
        EMPLOYEE_LIST = (ArrayList<Employee>) context.getBean("empList");
    }
    public ArrayList<Employee> getAllEmployees() {
        return EMPLOYEE_LIST;
    }
}
2) Hands on 2: Create REST service to gets all employees
```

Solution:

```
//EmployeeService.java
package com.cognizant.springlearn.service;
import com.cognizant.springlearn.Employee;
import com.cognizant.springlearn.dao.EmployeeDao;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import org.springframework.transaction.annotation.Transactional;
import java.util.ArrayList;
@Service
public class EmployeeService {
  @Autowired
  private EmployeeDao employeeDao;
  @Transactional
  public ArrayList<Employee> getAllEmployees() {
    return employeeDao.getAllEmployees();
  }}
```

```
//EmployeeController.java
package com.cognizant.springlearn.controller;
import com.cognizant.springlearn.Employee;
import com.cognizant.springlearn.service.EmployeeService;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;
import java.util.ArrayList;
@RestController
public class EmployeeController {
  @Autowired
  private EmployeeService employeeService;
  @GetMapping("/employees")
  public ArrayList<Employee> getAllEmployees() {
    return employeeService.getAllEmployees();
3) Hands on 3: Create REST service for department
Solution:
//DepartmentDao.java
package com.cognizant.springlearn.dao;
import com.cognizant.springlearn.Department;
import org.springframework.context.ApplicationContext;
import org.springframework.context.support.ClassPathXmlApplicationContext;
import org.springframework.stereotype.Component;
import java.util.ArrayList;
@Component
public class DepartmentDao {
  private static ArrayList<Department> DEPARTMENT LIST;
```

```
public DepartmentDao() {
    ApplicationContext context = new ClassPathXmlApplicationContext("employee.xml");
    DEPARTMENT LIST = (ArrayList<Department>) context.getBean("departmentList");
  }
  public ArrayList<Department> getAllDepartments() {
    return DEPARTMENT LIST;
//employee.xml
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"</pre>
    xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="
    http://www.springframework.org/schema/beans
    https://www.springframework.org/schema/beans/spring-beans.xsd">
  <bean id="dept1" class="com.cognizant.springlearn.Department">
    cproperty name="id" value="1"/>
    property name="name" value="HR"/>
  </bean>
  <bean id="dept2" class="com.cognizant.springlearn.Department">
    property name="id" value="2"/>
    property name="name" value="IT"/>
  </bean>
  <bean id="dept3" class="com.cognizant.springlearn.Department">
    cproperty name="id" value="3"/>
    property name="name" value="Finance"/>
  </bean>
  <bean id="emp1" class="com.cognizant.springlearn.Employee">
    cproperty name="id" value="101"/>
    cproperty name="name" value="John Doe"/>
```

```
cproperty name="department" ref="dept1"/>
  </bean>
  <bean id="emp2" class="com.cognizant.springlearn.Employee">
    property name="id" value="102"/>
    cproperty name="name" value="Jane Smith"/>
    cproperty name="department" ref="dept2"/>
  </bean>
  <bean id="emp3" class="com.cognizant.springlearn.Employee">
    property name="id" value="103"/>
    cproperty name="name" value="Alex Johnson"/>
    cproperty name="department" ref="dept3"/>
  </bean>
  <bean id="empList" class="java.util.ArrayList">
    <constructor-arg>
      t>
         <ref bean="emp1"/>
         <ref bean="emp2"/>
         <ref bean="emp3"/>
      </list>
    </constructor-arg>
  </bean>
<bean id="departmentList" class="java.util.ArrayList">
  <constructor-arg>
    t>
      <ref bean="dept1"/>
      <ref bean="dept2"/>
      <ref bean="dept3"/>
    </list>
  </constructor-arg>
</bean>
```

```
</beans>
//DepartmentService.java
package com.cognizant.springlearn.service;
import com.cognizant.springlearn.Department;
import com.cognizant.springlearn.dao.DepartmentDao;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import java.util.ArrayList;
@Service
public class DepartmentService {
  @Autowired
  private DepartmentDao departmentDao;
  public ArrayList<Department> getAllDepartments() {
    return departmentDao.getAllDepartments();
//DepartmentController.java
package com.cognizant.springlearn.controller;
import com.cognizant.springlearn.Department;
import com.cognizant.springlearn.service.DepartmentService;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;
import java.util.ArrayList;
@RestController
public class DepartmentController {
  @Autowired
  private DepartmentService departmentService;
  @GetMapping("/departments")
  public ArrayList<Department> getAllDepartments() {
```

	return departmentService.getAllDepartments();
}	