**Hands on 4: Create REST service for department**

Create a new service to get all the departments.

Follow steps below to achieve this:

* Create a new REST Service, define below list of classes and respective methods:
  + DepartmentController
    - getAllDepartments() with URL "/departments", this method will return array of departments
  + DepartmentService
    - getAllDepartments()
  + DepartmentDao
    - getAllDepartments() - Create a static variable DEPARTMENT\_LIST, this should be populated from spring xml configuration
* Test ​the service using postman.
* Also verify if department REST service is called by looking into the logs.

**Solution:**

**Department.xml**

<?xml version="1.0" encoding="UTF-8"?>

<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="department1" class="com.cognizant.spring\_learn.model.Department">

<property name="id" value="1"/>

<property name="name" value="HR"/>

</bean>

<bean id="department2" class="com.cognizant.spring\_learn.model.Department">

<property name="id" value="2"/>

<property name="name" value="Finance"/>

</bean>

<bean id="departmentList" class="java.util.ArrayList">

<constructor-arg>

<list>

<ref bean="department1"/>

<ref bean="department2"/>

</list>

</constructor-arg>

</bean>

</beans>

**Department.java:**

package com.cognizant.spring\_learn.model;

public class Department {

private int id;

private String name;

// Getters and setters

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; }

}

**DepartmentDao.java**

package com.cognizant.spring\_learn.dao;

import com.cognizant.spring\_learn.model.Department;

import org.springframework.context.ApplicationContext;

import org.springframework.context.support.ClassPathXmlApplicationContext;

import org.springframework.stereotype.Repository;

import java.util.List;

@Repository

public class DepartmentDao {

private static List<Department> DEPARTMENT\_LIST;

public DepartmentDao() {

ApplicationContext context = new ClassPathXmlApplicationContext("department.xml");

DEPARTMENT\_LIST = (List<Department>) context.getBean("departmentList");

}

public List<Department> getAllDepartments() {

return DEPARTMENT\_LIST;

}

}

**DepartmentService.java:**

package com.cognizant.spring\_learn.service;

import com.cognizant.spring\_learn.dao.DepartmentDao;

import com.cognizant.spring\_learn.model.Department;

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

import org.springframework.stereotype.Service;

import org.springframework.transaction.annotation.Transactional;

import java.util.List;

@Service

public class DepartmentService {

@Autowired

private DepartmentDao departmentDao;

@Transactional

public List<Department> getAllDepartments() {

return departmentDao.getAllDepartments();

}

}

**DepartmentContrller.java:**

package com.cognizant.spring\_learn.controller;

import com.cognizant.spring\_learn.model.Department;

import com.cognizant.spring\_learn.service.DepartmentService;

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

import org.springframework.web.bind.annotation.\*;

import java.util.List;

@RestController

public class DepartmentController {

@Autowired

private DepartmentService departmentService;

@GetMapping("/departments")

public List<Department> getAllDepartments() {

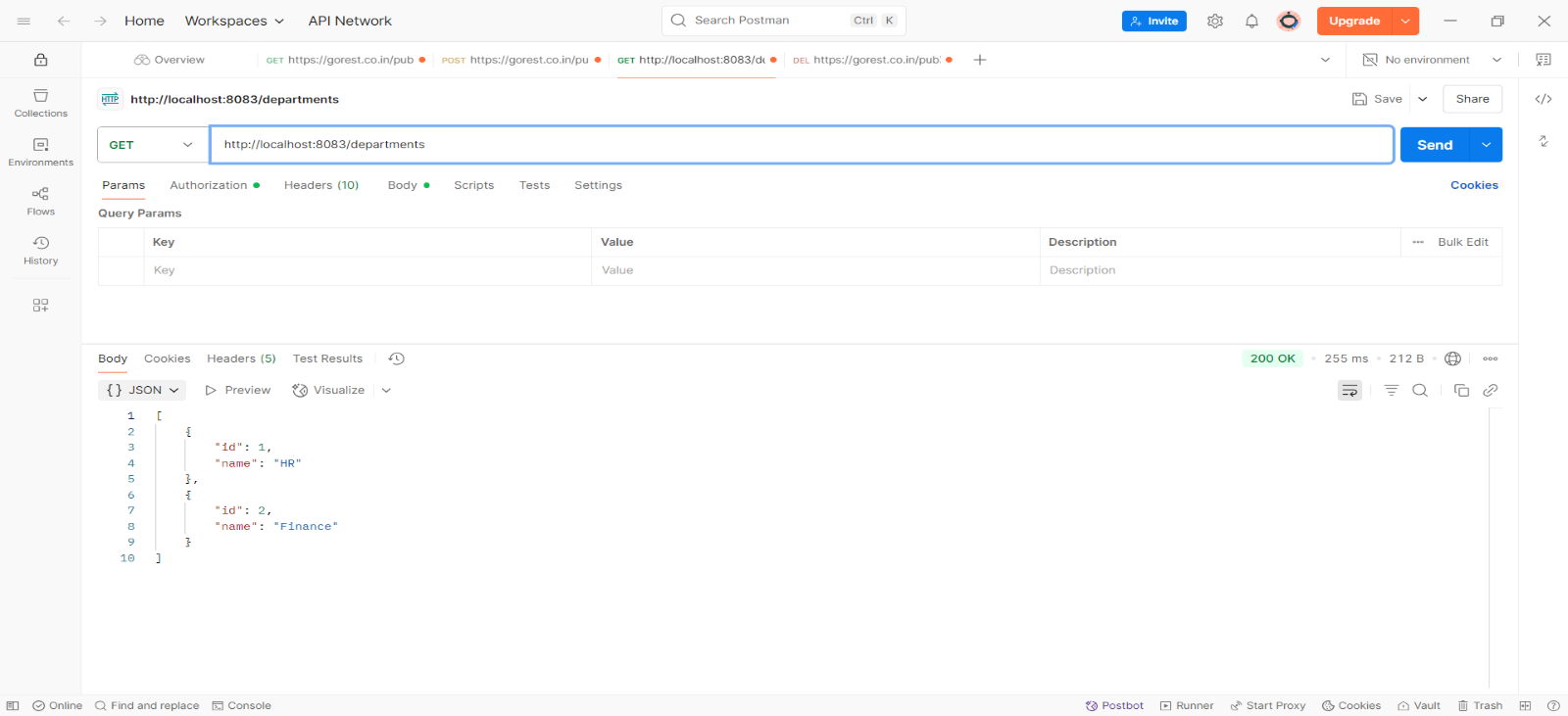
System.out.println("DepartmentController: getAllDepartments() called");

return departmentService.getAllDepartments();

}

}

**OUPUT:**

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