

# Simple Spring REST Project

## File Structure

```
+ sample-demo-first\  
  |-- pom.xml  
  + \src\main\resources  
    |-- application.properties  
  + \src\main\java\com\suji\sample  
    |-- SampleDemoFirstApplication.java  
  + \src\main\java\com\suji\sample\model  
    |-- Employee.java  
  + \src\main\java\com\suji\sample\controller  
    |-- EmployeeController.java  
  + \src\main\java\com\suji\sample\service  
    |-- EmployeeService.java  
  + \src\main\java\com\suji\sample\serviceImpl  
    |-- EmployeeServiceImpl.java
```

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5. \src\main\java\com\suji\sample\SampleDemoFirstApplication.java
6. \src\main\java\com\suji\sample\service\EmployeeService.java
7. \src\main\java\com\suji\sample\serviceImpl\EmployeeServiceImpl.java

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## 1. application.properties

resources\application.properties

```
# Server Port  
server.port=8080  
  
# Open API Available at http://localhost:8080/api-docs/  
springdoc.api-docs.path=/api-docs  
  
# Swagger UI Available at http://localhost:8080/swagger.html  
springdoc.swagger-ui.path=/swagger.html
```

---

## 2. pom.xml

E:\SpringBoot STS\Workspace\sample-demo-first\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>2.7.2</version>
    <relativePath /> <!-- lookup parent from repository -->
  </parent>
  <groupId>com.suji</groupId>
  <artifactId>sample-demo-first</artifactId>
  <version>0.0.1-SNAPSHOT</version>
  <name>sample-demo-first</name>
  <description>Demo project for Spring Boot</description>
  <properties>
    <java.version>11</java.version>
  </properties>
  <dependencies>

    <dependency>
      <groupId>org.springdoc</groupId>
      <artifactId>springdoc-openapi-ui</artifactId>
      <version>1.6.4</version>
    </dependency>

    <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>
  </dependencies>

  <build>
    <plugins>
      <plugin>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-maven-plugin</artifactId>
      </plugin>
    </plugins>
  </build>

</project>
```

---

### 3. Employee.java

\model\Employee.java

```
package com.suji.sample.model;

public class Employee {

    private int id;
    private String name;
    private String dept;
    private int salary;

    public Employee() {
    }

    public Employee(int id, String name, String dept, int salary) {
        this.id = id;
        this.name = name;
        this.dept = dept;
        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 getDept() {
        return dept;
    }
    public void setDept(String dept) {
        this.dept = dept;
    }
    public int getSalary() {
        return salary;
    }
    public void setSalary(int salary) {
        this.salary = salary;
    }
}
```

```
}
```

#### 4. EmployeeController.java

\src\main\java\com\suji\sample\controller\EmployeeController.java

```
package com.suji.sample.controller;

import java.util.List;

import javax.websocket.server.PathParam;

import org.springframework.beans.factory.annotation.Autowired;
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.RequestMapping;
import org.springframework.web.bind.annotation.RestController;

import com.suji.sample.model.Employee;
import com.suji.sample.service.EmployeeService;

@RestController
@RequestMapping(path = "/employees")
public class EmployeeController {

    //Dependencies
    @Autowired
    private EmployeeService employeeService;

    @GetMapping(path = "")
    public String test() {
        return "Hello World";
    }

    // http://localhost:8080/employees/all
    @GetMapping("/all")
    public List<Employee> getAllEmployees(){
        return employeeService.getAllEmployees();
    }

    @GetMapping("/get/{empId}")
    public Employee getEmployeeById(@PathVariable(value = "empId") Integer id) {
        return employeeService.getEmployeeById(id);
    }

    @PostMapping("/save")
```

```
    public String saveEmployee(@RequestBody(required = true) Employee employee) {  
        return employeeService.saveEmployee(employee);  
    }  
}
```

---

## 5. SampleDemoFirstApplication.java

\src\main\java\com\suji\sample\SampleDemoFirstApplication.java

```
package com.suji.sample;  
  
import org.springframework.beans.factory.annotation.Autowired;  
import org.springframework.boot.ApplicationArguments;  
import org.springframework.boot.ApplicationRunner;  
import org.springframework.boot.SpringApplication;  
import org.springframework.boot.autoconfigure.SpringBootApplication;  
  
import com.suji.sample.model.Employee;  
import com.suji.sample.service.EmployeeService;  
  
@SpringBootApplication  
public class SampleDemoFirstApplication implements ApplicationRunner {  
  
    @Autowired  
    private EmployeeService employeeService;  
  
    public static void main(String[] args) {  
        SpringApplication.run(SampleDemoFirstApplication.class, args);  
    }  
  
    @Override  
    public void run(ApplicationArguments args) throws Exception {  
        employeeService.saveEmployee(new Employee(1, "Pranisha", "IT", 50000));  
        employeeService.saveEmployee(new Employee(1, "Sujith", "OP", 35000));  
        employeeService.saveEmployee(new Employee(1, "Sravaki", "Medical", 20000));  
    }  
}
```

---

## 6. EmployeeService.java

\src\main\java\com\suji\sample\service\EmployeeService.java

```
package com.suji.sample.service;  
  
import java.util.List;  
  
import org.springframework.stereotype.Service;
```

```
import com.suji.sample.model.Employee;

@Service
public interface EmployeeService {

    List<Employee> getAllEmployees();
    Employee getEmployeeById(int id);
    String saveEmployee(Employee employee);

}
```

## 7. EmployeeServiceImpl.java

\src\main\java\com\suji\sample\serviceImpl\EmployeeServiceImpl.java

```
package com.suji.sample.serviceImpl;

import java.util.ArrayList;
import java.util.List;

import org.springframework.stereotype.Service;

import com.suji.sample.model.Employee;
import com.suji.sample.service.EmployeeService;

@Service
public class EmployeeServiceImpl implements EmployeeService {

    private List<Employee> employeeList = new ArrayList<>();

    @Override
    public List<Employee> getAllEmployees() {
        return employeeList;
    }

    @Override
    public Employee getEmployeeById(int id) {
        Employee employee = null;
        for(Employee e : employeeList) {
            if(e.getId() == id) {
                employee = e;
            }
        }
        return employee;
    }

    @Override
    public String saveEmployee(Employee employee) {

        if(employeeList.add(employee)) {
            return "Employee with id '"+employee.getId()+"' created successfully. ";
        }
    }
}
```

```
    }else {  
        return "Sorry failed to create Employee with id '"+employee.getId()+"";  
    }  
}  
  
}
```

---