

# Spring Boot Actuator

## Directory Structure

employee-api/

```
├── src/
│   ├── main/
│   │   ├── java/
│   │   │   ├── com/
│   │   │   │   ├── company/
│   │   │   │   │   ├── employeeapi/
│   │   │   │   │   │   ├── EmployeeApiApplication.java
│   │   │   │   │   │   └── controller/
│   │   │   │   │   │       └── EmployeeController.java
│   │   └── resources/
│   │       ├── application.properties
│   │       └── static/
└── pom.xml
```

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## pom.xml

```
<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
    http://maven.apache.org/xsd/maven-4.0.0.xsd">

  <modelVersion>4.0.0</modelVersion>
```

```
<groupId>com.company</groupId>
<artifactId>employee-api</artifactId>
<version>0.0.1-SNAPSHOT</version>
<name>employee-api</name>
<description>Spring Boot AutoConfiguration Case Study</description>
<packaging>jar</packaging>
```

```
<parent>
  <groupId>org.springframework.boot</groupId>
  <artifactId>spring-boot-starter-parent</artifactId>
  <version>3.2.4</version> <!-- or latest -->
</parent>
```

```
<properties>
  <java.version>17</java.version>
</properties>
```

```
<dependencies>
  <!-- Spring Web for REST API -->
  <dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-web</artifactId>
  </dependency>
```

```
<!-- Actuator for Monitoring -->
<dependency>
  <groupId>org.springframework.boot</groupId>
```

```
        <artifactId>spring-boot-starter-actuator</artifactId>
    </dependency>

    <!-- Optional: For JSON mapping -->
    <dependency>
        <groupId>com.fasterxml.jackson.core</groupId>
        <artifactId>jackson-databind</artifactId>
    </dependency>
</dependencies>

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

</project>
```

---

### **EmployeeApiApplication.java**

```
package com.company.employeeapi;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
```

```
@SpringBootApplication
public class EmployeeApiApplication {

    public static void main(String[] args) {
        SpringApplication.run(EmployeeApiApplication.class, args);
    }
}
```

---

### **controller/EmployeeController.java**

```
package com.company.employeeapi.controller;

import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;
import java.util.Map;

@RestController
public class EmployeeController {

    @GetMapping("/employee")
    public Map<String, Object> getEmployee() {
        return Map.of(
            "id", 101,
            "name", "John Doe",
            "department", "Engineering"
        );
    }
}
```

---

### **application.properties**

spring.application.name=EmployeeInfoAPI

server.port=8080

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**Test with Postman or browser:**

http://localhost:8080/employee → Should return JSON:

```
{  
  "id": 101,  
  "name": "John Doe",  
  "department": "Engineering"  
}
```