

## Day 10 Java Assignment

### Employee Info API using Spring Boot AutoConfiguration

#### 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>
<groupId>com.company</groupId>
<artifactId>employee-api</artifactId>
<version>0.0.1-SNAPSHOT</version>
<name>Employee API</name>
<parent>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-parent</artifactId>
<version>3.2.0</version>
<relativePath/>
</parent>
<properties>
<java.version>17</java.version>
</properties>
<dependencies>
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-web</artifactId>
</dependency>
</dependencies>
<build>
<plugins>
```

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

#### application.properties:

```
server.port=8082
spring.application.name=employee-api
```

#### EmployeeController:

```
package com.company.employeeapi.controller;
import java.util.Map;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;
@RestController
public class EmployeeController {
    @GetMapping("/employee")
    public Map<String, Object> getEmployee() {
        return Map.of(
            "id", 101,
            "name", "John Doe",
            "department", "Engineering");
    }
}
```

#### EmployeeApiApplication:

```

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);
    }
}

```

## 2. Spring Boot – Actuators

### Monitoring an Inventory System Problem Statement

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/XMLSchemaInstance"
    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>3.5.4</version>
        <relativePath/>
    </parent>

    <groupId>com.company</groupId>
    <artifactId>inventory-monitor</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>inventory-monitor</name>

```

```
<description>com.company.inventorymonitor</description>
<url/>
<licenses>
<license/>
</licenses>
<developers>
<developer/>
</developers>
<scm>
<connection/>
<developerConnection/>
<tag/>
<url/>
</scm>
<properties>
<java.version>17</java.version>
</properties>
<dependencies>
<dependency>
<groupId>org.springframework.boot</groupId>
<artifactId>spring-boot-starter-actuator</artifactId>
</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>
```

#### application.properties:

```
server.port=8085
spring.application.name=inventory-monitor
management.endpoints.web.exposure.include=*
management.endpoint.health.show-details=always
```

#### InventoryMonitorApplication:

```
package com.company.inventory_monitor;
import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
@SpringBootApplication
public class InventoryMonitorApplication {
    public static void main(String[] args) {
        SpringApplication.run(InventoryMonitorApplication.class, args);
    }
}
```

#### InventoryController:

```
package com.company.inventorymonitor.controller;

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

@RestController

public class InventoryController {

    @GetMapping("/inventory")
    public Map<String, Object> getInventoryStatus() {
        return Map.of(
            "status", "available",
            "items", 120,
            "location", "Warehouse A"
        );
    }
}
```