

Java Spring Boot Restful – Getting Started with Security

Add below dependencies

```
<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-starter-oauth2-resource-server</artifactId>
</dependency>

<dependency>
    <groupId>org.springframework.boot</groupId>
    <artifactId>spring-boot-configuration-processor</artifactId>
    <optional>true</optional>
</dependency>
```

Create a folder -> security -> Inside that -> SecurityConfig.java

```
package org.studyeasy.SpringRestdemo.security;

import org.springframework.context.annotation.Bean;
import org.springframework.context.annotation.Configuration;
import org.springframework.security.config.annotation.web.builders.HttpSecurity;
import
org.springframework.security.config.annotation.web.configuration.EnableWebSecurity;
import org.springframework.security.core.userdetails.User;
import org.springframework.security.provisioning.InMemoryUserDetailsManager;
import org.springframework.security.web.SecurityFilterChain;

@Configuration
@EnableWebSecurity
public class SecurityConfig {

    @Bean
    public InMemoryUserDetailsManager users() {
        return new InMemoryUserDetailsManager(
            User.withUsername("chaand")
                .password("{noop}password")
                .authorities("read")
        );
    }
}
```

```

        .build());
    }

    @Bean
    public SecurityFilterChain securityFilterChain(HttpSecurity http) throws
Exception {
        http
            .authorizeHttpRequests(customizer -> customizer
                .requestMatchers("/token").permitAll()
                .requestMatchers("/").permitAll()
                .requestMatchers("/swagger-ui/**").permitAll()
                .requestMatchers("/v3/api-docs/**").permitAll()
                .requestMatchers("/test").authenticated());

        return http.build();
    }
}

```

Create a folder -> config -> Inside that -> SwaggerConfig.java

```

package org.studyeasy.SpringRestdemo.config;

import org.springframework.context.annotation.Configuration;
import io.swagger.v3.oas.annotations.OpenAPIDefinition;
import io.swagger.v3.oas.annotations.info.Contact;
import io.swagger.v3.oas.annotations.info.Info;
import io.swagger.v3.oas.annotations.info.License;

@Configuration
@OpenAPIDefinition(
    info = @Info(
        title = "Demo API",
        version = "Verions 1.0",
        contact = @Contact(
            name = "StudyEasy", email = "admin@studyeasy.org", url =
"https://studyeasy.org"
        ),
        license = @License(
            name = "Apache 2.0", url = "https://www.apache.org/licenses/LICENSE-2.0"
        ),
        termsOfService = "https://studyeasy.org/",

```

```

        description = "Spring Boot RestFul API Demo by Chaand"
    )
}
public class SwaggerConfig {
}

```

SpringRestDemoApplication.java

```

package org.studyeasy.SpringRestdemo;

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

import io.swagger.v3.oas.annotations.security.SecurityScheme;
import io.swagger.v3.oas.annotations.enums.*;

@SpringBootApplication
@SecurityScheme(name = "studyeasy-demo-api", scheme = "bearer", type =
SecuritySchemeType.HTTP, in = SecuritySchemeIn.HEADER)
public class SpringRestdemoApplication {

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

}

```

Create a folder -> controller -> Inside that -> AccountController.java

```

package org.studyeasy.SpringRestdemo.controller;

import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.RestController;

@RestController
public class AccountController {

    @GetMapping("/")
    public String demo(){
        return "Hello World!..";
    }

}

```

```

    @GetMapping("/test")
    public String test(){
        return "Test api..";
    }
}

```

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>3.3.2</version>
        <relativePath /> <!-- lookup parent from repository -->
    </parent>
    <groupId>org.studyeasy</groupId>
    <artifactId>SpringRestdemo</artifactId>
    <version>0.0.1-SNAPSHOT</version>
    <name>SpringRestdemo</name>
    <description>Demo project for Spring Boot</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-web</artifactId>
    </dependency>

    <dependency>
        <groupId>org.projectlombok</groupId>
        <artifactId>lombok</artifactId>
        <optional>true</optional>
    </dependency>
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-test</artifactId>
        <scope>test</scope>
    </dependency>

    <!-- Adding openapi v2.6.0 : URL - https://springdoc.org/-->
    <dependency>
        <groupId>org.springdoc</groupId>
        <artifactId>springdoc-openapi-starter-webmvc-ui</artifactId>
        <version>2.6.0</version>
    </dependency>
    <!-- Adding dependancies derived from outside - date - 2/8/2024-->
    <!-- Pre requisite for Spring Security-->
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-starter-oauth2-resource-server</artifactId>
    </dependency>
    <!-- Adding dependancies derived from outside - date - 2/8/2024-->
    <dependency>
        <groupId>org.springframework.boot</groupId>
        <artifactId>spring-boot-configuration-processor</artifactId>
        <optional>true</optional>
    </dependency>
</dependencies>

<build>
    <plugins>
        <plugin>
            <groupId>org.springframework.boot</groupId>
            <artifactId>spring-boot-maven-plugin</artifactId>
            <configuration>
                <excludes>
                    <exclude>
                        <groupId>org.projectlombok</groupId>
                        <artifactId>lombok</artifactId>

```

```
        </exclude>
      </excludes>
    </configuration>
  </plugin>
</plugins>
</build>
</project>
```