SpringSecurity入门

简介

Spring Security是一个能够为基于Spring的企业应用系统提供声明式的安全访问控制解决方案的安全框架。它提供了一组可以在Spring应用上下文中配置的Bean，充分利用了Spring IoC，DI（控制反转 Inversion of Control ,DI:Dependency Injection 依赖注入）和AOP（面向切面编程）功能，为应用系统提供声明式的安全访问控制功能，减少了为企业系统安全控制编写大量重复代码的工作。

默认验证

创建maven工程并添加目录springsecuritydemo\src\main\webapp\WEB-INF

添加依赖

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

    <groupId>com.xxx.proj.security</groupId>
    <artifactId>spring-security-demo</artifactId>
    <version>1.0-SNAPSHOT</version>

    <packaging>war</packaging>
    <properties>
        <webVersion>3.0</webVersion>
        <spring.version>4.2.5.RELEASE</spring.version>
    </properties>
    <dependencies>
        <dependency>
            <groupId>org.springframework</groupId>
            <artifactId>spring-core</artifactId>
            <version>${spring.version}</version>
        </dependency>
        <dependency>
            <groupId>org.springframework</groupId>
            <artifactId>spring-web</artifactId>
            <version>${spring.version}</version>
        </dependency>
        <dependency>
            <groupId>org.springframework</groupId>
            <artifactId>spring-webmvc</artifactId>
            <version>${spring.version}</version>
```

```xml
            </dependency>
            <dependency>
                <groupId>org.springframework</groupId>
                <artifactId>spring-context-support</artifactId>
                <version>${spring.version}</version>
            </dependency>
            <dependency>
                <groupId>org.springframework</groupId>
                <artifactId>spring-test</artifactId>
                <version>${spring.version}</version>
            </dependency>
            <dependency>
                <groupId>org.springframework</groupId>
                <artifactId>spring-jdbc</artifactId>
                <version>${spring.version}</version>
            </dependency>
            <dependency>
                <groupId>org.springframework.security</groupId>
                <artifactId>spring-security-web</artifactId>
                <version>4.1.0.RELEASE</version>
            </dependency>
            <dependency>
                <groupId>org.springframework.security</groupId>
                <artifactId>spring-security-config</artifactId>
                <version>4.1.0.RELEASE</version>
            </dependency>
            <dependency>
                <groupId>javax.servlet</groupId>
                <artifactId>servlet-api</artifactId>
                <version>2.5</version>
                <scope>provided</scope>
            </dependency>
        </dependencies>
        <build>
            <plugins>
                <plugin>
                    <artifactId>maven-compiler-plugin</artifactId>
                    <configuration>
                        <source>1.8</source>
                        <target>1.8</target>
                    </configuration>
                </plugin>
                <plugin>
                    <groupId>org.apache.tomcat.maven</groupId>
                    <artifactId>tomcat7-maven-plugin</artifactId>
                    <configuration>
                        <!-- 指定端口 -->
                        <port>9090</port>
                        <!-- 请求路径 -->
                        <path>/</path>
                    </configuration>
                </plugin>
            </plugins>
        </build>

</project>
```

添加web.xml

添加文件springsecuritydemo\src\main\webapp\WEB-INF\web.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<web-app xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
         xmlns="http://java.sun.com/xml/ns/javaee"
         xsi:schemaLocation="http://java.sun.com/xml/ns/javaee
http://java.sun.com/xml/ns/javaee/web-app_2_5.xsd"
         version="2.5">
    <!--加载安全框架-->
    <context-param>
        <param-name>contextConfigLocation</param-name>
        <param-value>classpath:spring-security.xml</param-value>
    </context-param>
    <listener>
        <listener-
class>org.springframework.web.context.ContextLoaderListener</listener-class>
    </listener>
    <!--spring安全过滤器注入到这里，动态加载过滤器-->
    <filter>
        <filter-name>springSecurityFilterChain</filter-name>
        <filter-
class>org.springframework.web.filter.DelegatingFilterProxy</filter-class>
    </filter>
    <filter-mapping>
        <filter-name>springSecurityFilterChain</filter-name>
        <url-pattern>/*</url-pattern>
    </filter-mapping>
</web-app>
```

添加安全配置

添加文件springsecuritydemo\src\main\resources\spring-security.xml

```xml
<?xml version="1.0" encoding="UTF-8"?>
<beans:beans xmlns="http://www.springframework.org/schema/security"
             xmlns:beans="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
                    http://www.springframework.org/schema/security
http://www.springframework.org/schema/security/spring-security.xsd">
    <!--配置忽略规则-->
    <http pattern="/favicon.ico" security="none"></http>
    <!--配置拦截规则-->
    <http use-expressions="false">
        <!--拦截地址以及需要的权限-->
        <intercept-url pattern="/**" access="ROLE_XXX"></intercept-url>
        <!--如果不具备该角色，则跳转到登录页-->
        <form-login></form-login>
    </http>
    <!--配置认证管理器-->
    <authentication-manager>
```

```xml
        <authentication-provider>
            <user-service>
                <!-- 必须以ROLE_开头-->
                <user name="admin" password="123456" authorities="ROLE_XXX">
</user>
                <user name="test" password="123456" authorities="ROLE_TEST">
</user>
            </user-service>
        </authentication-provider>
    </authentication-manager>
</beans:beans>
```

自定义登录界面

创建登录页

创建登录页springsecuritydemo\src\main\webapp\login.html

```html
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
<form action='/login' method='POST'>
    <table>
        <tr>
            <td>用户名:</td>
            <td><input type='text' name='username' value=''></td>
        </tr>
        <tr>
            <td>密码:</td>
            <td><input type='password' name='password'/></td>
        </tr>
        <tr>
            <td colspan='2'><input name="submit" type="submit" value="登陆"/>
</td>
        </tr>
    </table>
</form>

</body>
</html>
```

创建登录失败页

创建失败页springsecuritydemo\src\main\webapp\login_error.html

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <title>Title</title>
</head>
<body>
登录失败！
</body>
</html>
```

修改安全配置

修改springsecuritydemo\src\main\resources\spring-security.xml

添加忽略过滤规则

```
<http pattern="/login.html" security="none"></http>
<http pattern="/login_error.html" security="none"></http>
```

配置登录页、错误页、默认跳转页

```
<form-login login-page="/login.html" authentication-failure-url="/login_error.html"   default-target-url="/index.html"></form-login>
```

关闭跨站攻击校验

```
<csrf disabled="true"></csrf>
```