

SOURCE CODE: SPRING SECURITY WITH AUTHENTICATION

Src/main/java

Create package com.project.SpringSecurity

Create MvcConfig.java

```
package com.project.SpringSecurity;

import org.springframework.context.annotation.Configuration;
import org.springframework.web.servlet.config.annotation.ViewControllerRegistry;
import org.springframework.web.servlet.config.annotation.WebMvcConfigurer;

@Configuration

public class MvcConfig implements WebMvcConfigurer{

    public void addViewControllers(ViewControllerRegistry registry) {

        registry.addViewController("/index").setViewName("index");
        registry.addViewController("/").setViewName("index");
        registry.addViewController("/login").setViewName("login");
        registry.addViewController("/welcome").setViewName("welcome");

    }

}
```

Create SpringSecurityApplication.java

```
package com.project.SpringSecurity;

import org.springframework.boot.SpringApplication;
import org.springframework.boot.autoconfigure.SpringBootApplication;
import org.springframework.data.jpa.repository.config.EnableJpaRepositories;
import com.project.SpringSecurity.repositories.UsersRepository;

@SpringBootApplication
```

```

@EnableJpaRepositories(basePackageClasses = UsersRepository.class)

public class SpringSecurityApplication {

    public static void main(String[] args) {

        SpringApplication.run(SpringSecurityApplication.class, args);

    }

}

```

Create WebSecurityConfig.java

```

package com.project.SpringSecurity;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.context.annotation.Bean;

import org.springframework.context.annotation.Configuration;

import org.springframework.security.config.annotation.authentication.builders.AuthenticationManagerBuilder;

import org.springframework.security.config.annotation.web.builders.HttpSecurity;

import org.springframework.security.config.annotation.web.configuration.EnableWebSecurity;

import org.springframework.security.config.annotation.web.configuration.WebSecurityConfigurerAdapter;

import org.springframework.security.core.userdetails.UserDetailsService;

import org.springframework.security.crypto.password.NoOpPasswordEncoder;

import org.springframework.security.crypto.password.PasswordEncoder;

@SuppressWarnings("deprecation")

@Configuration

@EnableWebSecurity

public class WebSecurityConfig extends WebSecurityConfigurerAdapter {

    Logger logger = LoggerFactory.getLogger(WebSecurityConfig.class);

    @Autowired

```

```

        UserDetailsServiceImpl userDetailsServiceImpl;

        @Bean

        public PasswordEncoder getPasswordEncoder() {

            return NoOpPasswordEncoder.getInstance();

        }

        @Autowired

        public void configureGlobal(AuthenticationManagerBuilder auth) throws Exception {

            auth.userDetailsService(userDetailsServiceImpl);

        }

        @Override

        protected void configure(HttpSecurity http) throws Exception {

            http.authorizeRequests()

                .antMatchers("/", "/index").permitAll()

                .anyRequest().authenticated()

            .and()

                .formLogin()

                .loginPage("/login")

                .defaultSuccessUrl("/welcome")

                .failureUrl("/login?error=true")

                .permitAll()

            .and()

                .logout()

                .logoutSuccessUrl("/login?logout=true")

                .invalidateHttpSession(true)

                .permitAll()

            .and()

                .csrf()

```

```

        .disable();
    }
}

```

Create package com.project.SpringSecurity.entities

Create MyUserDetails.java

```

package com.project.SpringSecurity.entities;

import java.util.Collection;

import org.springframework.security.core.GrantedAuthority;
import org.springframework.security.core.userdetails.UserDetails;

public class MyUserDetails implements UserDetails{

    private static final long serialVersionUID = 1L;

    private String userName;

    private String password;

    public MyUserDetails() {

    }

    public MyUserDetails(User user) {

        this.userName = user.getName();

        this.password = user.getPassword();

    }

    @Override

    public Collection<? extends GrantedAuthority>getAuthorities() {

        return null;

    }

    @Override

    public String getPassword() {

        return password;

    }

}

```

```

@Override

public String getUsername() {

    return userName;

}

@Override

public booleanisAccountNonExpired() {

    return true;

}

@Override

public booleanisAccountNonLocked() {

    return true;

}

@Override

public booleanisCredentialsNonExpired() {

    return true;

}

@Override

public booleanisEnabled() {

    return true;

}

}

```

Create User.java

```
package com.project.SpringSecurity.entities;
```

```
import javax.persistence.Entity;

import javax.persistence.GeneratedValue;

import javax.persistence.GenerationType;

import javax.persistence.Id;

import javax.persistence.Table;

@Entity

@Table(name="user")

public class User {

    @Id

    @GeneratedValue(strategy=GenerationType.AUTO)

    private Integer id;

    private String name;

    private String password;

    public User() {

        super();

    }

    public User(String name, String password) {

        super();

        this.name = name;

        this.password = password;

    }

    public String getName() {

        return name;

    }

    public void setName(String name) {

        this.name = name;

    }

}
```

```

        public String getPassword() {

            return password;

        }

        public void setPassword(String password) {

            this.password = password;

        }

    }

```

Create package **com.project.SpringSecurity.repositories**

Create **UsersRepository.java**

```

package com.project.SpringSecurity.repositories;

import java.util.Optional;
import org.springframework.data.repository.CrudRepository;
import org.springframework.stereotype.Repository;
import com.project.SpringSecurity.entities.User;

@Repository
public interface UsersRepository extends CrudRepository<User, Integer>{

    public Optional<User>findUserByName(String name);

}

```

Create package **com.project.SpringSecurity.services**

Create **MyUserDetailsService.java**

```

package com.project.SpringSecurity.services;

import java.util.Optional;

import org.springframework.beans.factory.annotation.Autowired;

import org.springframework.security.core.userdetails.UserDetailsService;

import org.springframework.security.core.userdetails.UsernameNotFoundException;

import org.springframework.stereotype.Service;

import com.project.SpringSecurity.entities.MyUserDetails;

```

```

import com.project.SpringSecurity.entities.User;

import com.project.SpringSecurity.repositories.UsersRepository;

@Service

public class MyUserDetailsService implements UserDetailsService {

    @Autowired

    UsersRepository userRepo;

    public User GetUserByName(String name) {

        Optional<User> user = userRepo.findUserByName(name);

```

Src/main/resources

application.properties

```

spring.jpa.hibernate.ddl-auto=update
spring.jpa.hibernate.naming-strategy=org.hibernate.cfg.ImprovedNamingStrategy
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.MySQL5Dialect
spring.datasource.url=jdbc:mysql://localhost:3306/mywork
spring.datasource.username=root
spring.datasource.password=password
logging.level.org.springframework.web: DEBUG
spring.thymeleaf.prefix=/WEB-INF/jsp/
spring.thymeleaf.suffix=.jsp
server.port=8080
server.error.whitelabel.enabled=false

```

src/main/webapp/WEB-INF/jsp

Create index.jsp

```

<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml"
    xmlns:th="http://www.thymeleaf.org"
    xmlns:sec="http://www.thymeleaf.org/thymeleaf-extras-springsecurity3"
    xmlns:layout="http://www.ultraq.net.nz/thymeleaf/layout">
<head>
<title>Greetings!</title>
</head>
<body>
    <h1>Welcome!</h1>
    <p>
        Click <a:th:href="@{/welcome}">here</a> to see a greeting.
    </p>
</body>
</html>

```

Create login.jsp


```

<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml"xmlns:th="https://www.thymeleaf.org"
xmlns:sec="https://www.thymeleaf.org/thymeleaf-extras-springsecurity3">
<head>
<title>Login</title>
</head>
<body>
<divth:if="{param.error}">
    Invalid username or password.
</div>
<divth:if="{param.logout}">
    You have been logged out.
</div>
<formth:action="{@{/login}}"method="post">
<div><label> User Name :<inputtype="text"name="username"/></label></div>
<div><label> Password: <inputtype="password"name="password"/></label></div>
<div><inputtype="submit"value="Sign In"/></div>
</form>

<a href="/">Return to Main Page</a>
</body>
</html>

```

Create welcome.jsp

```

<!DOCTYPEhtml>
<htmlxmlns="http://www.w3.org/1999/xhtml"xmlns:th="https://www.thymeleaf.org"
xmlns:sec="https://www.thymeleaf.org/thymeleaf-extras-springsecurity3">
<head>
<title>Welcome!</title>
</head>
<body>
<h1th:inline="text">Hello [{#{#httpServletRequest.remoteUser}}]!</h1>
<formth:action="{@{/logout}}"method="post">
<inputtype="submit"value="Sign Out"/>
</form>
</body>
</html>

```