# Home Page

Graphical user interface, text, application, email

Description automatically generated

# 2 User Roles and credentials

ADMIN – PassAdmin

USER – PassUser

# Custom Security Configuration

@Configuration

**public** **class** SecurityConfiguration **extends** WebSecurityConfigurerAdapter {

@Autowired

**public** **void** configureGlobalSecurity(AuthenticationManagerBuilder auth) **throws** Exception {

auth.inMemoryAuthentication().passwordEncoder(getPasswordEncoder())

.withUser(User.*withUsername*("ADMIN").password(getPasswordEncoder().encode("PassAdmin")).roles("ADMIN"))

.withUser(User.*withUsername*("USER").password(getPasswordEncoder().encode("PassUser")).roles("USER"));

}

@Bean

**public** BCryptPasswordEncoder getPasswordEncoder() {

**return** **new** BCryptPasswordEncoder();

}

/\*\*

\* MOST RESTRICTIVE TO LEAST RESTRICTIVE

\*/

@Override

**protected** **void** configure(HttpSecurity http) **throws** Exception {

// ONLY ADMIN CAN ADD OR DELETE STUDENT

//USER (USED BY STUDENTS CAN VIEW AND UPDATE AND SAVE)

http.authorizeRequests()

.antMatchers("/delete-student", "/add-student").hasRole("ADMIN")

.antMatchers("/list-students", "/update-student", "/save-student").hasAnyRole("ADMIN", "USER")

.antMatchers("/").permitAll().and().formLogin();

http.csrf().disable();

http.headers().frameOptions().disable();

}

# ADMIN LOGIN

Graphical user interface, text, application

Description automatically generated

## List-Students

Graphical user interface

Description automatically generated

## Add Student

Graphical user interface, text, application

Description automatically generated On SAVE Redirects to list-students and visible

Graphical user interface

Description automatically generated

## Update By Admin

Graphical user interface, text, application, email

Description automatically generated

Graphical user interface

Description automatically generated with medium confidence

Now Admin will Add more students. and Students with ROLE “USER” Account role can update the existing Student Objects but cannot ADD or DELETE.

Table

Description automatically generated with medium confidence

## ADMIN Logout

Graphical user interface, text, application

Description automatically generated

# USER Login

Graphical user interface, text, application

Description automatically generatedOn Login Redirected to list-student. Can see All Students added by ADMIN.

A picture containing graphical user interface

Description automatically generated

## ADD NOT ALLOWED

Graphical user interface, text, application

Description automatically generated

## DELETE NOT ALLOWED

Graphical user interface, text, application

Description automatically generated

## UPDATE ALLOWED

Graphical user interface, text, application, email

Description automatically generated

Table

Description automatically generated

## LOGOUT by USER

Graphical user interface, text, application

Description automatically generated

# DELETE BY ADMIN

Student 2 deleted by Admin

Graphical user interface, application

Description automatically generated

# BAD Credentials

Graphical user interface, text, application, email

Description automatically generated