

## **MILESTONE 1**

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**THIS IS MY OWN WORK**

## SUMMARY

As part of our milestone project, we integrated Spring Security into an existing application to enhance authentication and authorization. The application includes a user management system with roles and event-related functionality.

### SecurityConfig Class:

I added a SecurityConfig class to define security policies using a SecurityFilterChain. This configuration ensures that only authenticated users can access event-related pages, while unauthenticated users are limited to viewing the Home, Register, and Login pages. The navigation bar dynamically updates based on authentication status, displaying Events, Create Event, Search Events, and Logout options only to logged-in users.

### PasswordEncoder Class:

I added a PasswordEncoder class utilizing BCryptPasswordEncoder. This ensures that passwords are securely hashed before being stored in the database, mitigating risks associated with plaintext password storage.

### UserService Class:

The UserService class was updated to implement Spring Security's UserDetailsService interface. This allows the application to load user details from the database for authentication. Additionally, password validation was integrated using the configured PasswordEncoder, ensuring secure login operations.

### Thymeleaf Updates

To align with Spring Security's authentication model, modifications were made to layout files using Thymeleaf's security attributes. These updates dynamically control UI elements based on the user's authentication state, restricting access to unauthorized pages and ensuring a seamless user experience.

## DEMONSTRATION

<https://www.loom.com/share/90e43e22a452409baad09ebfb9459c77>