
Securing a Web API using JSON Web Tokens

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Goals

Create one app with security requirements

- Authenticate & authorize users
- Secure Web API With JSON Web Tokens
- Claims-based authorization

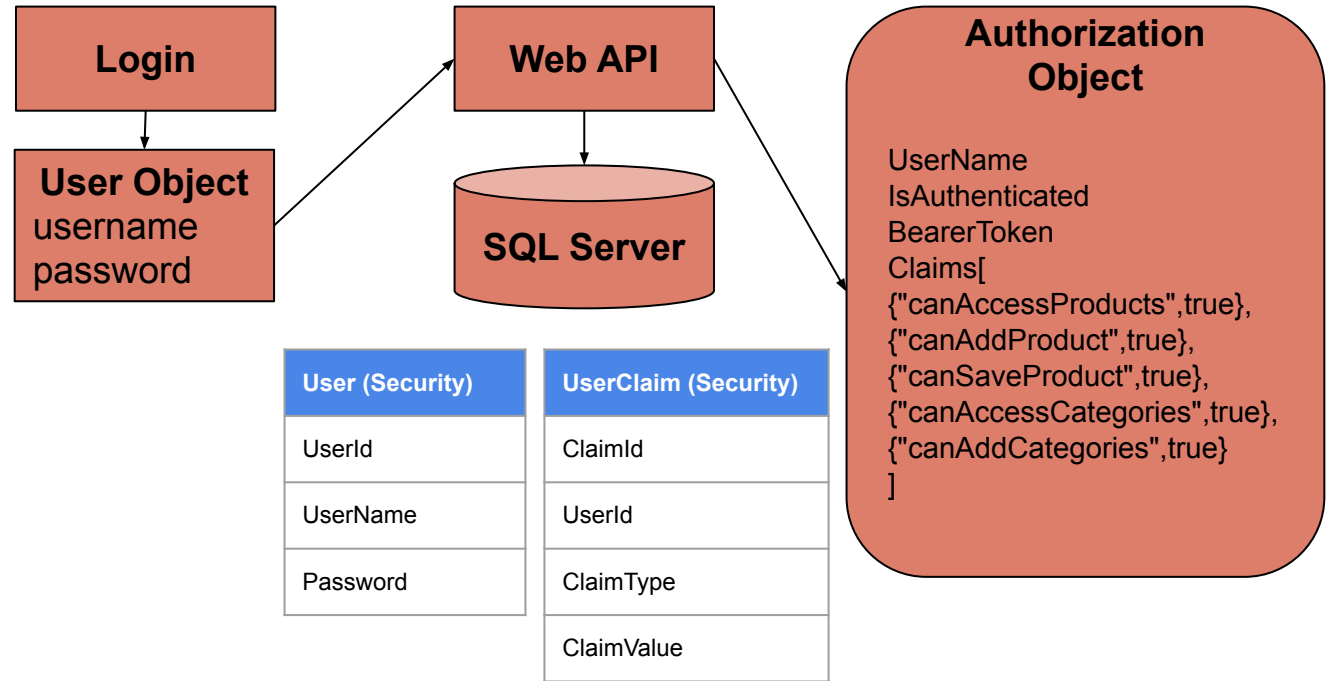
I assume you...

- Are an .NET developer
- Are familiar with
 - Web API

Security Goals

1. Don't let everyone in to your application
2. Keep users confined to certain areas
3. Create security authorization object
4. Secure Web API methods

Security Architecture



Initial configuration database and application

Creation of database with the following tables

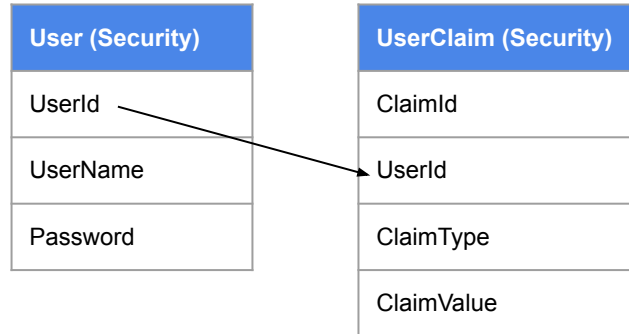
- Category
- Product
- User
- UserClaim

Creation of Web API

- Entity Framework classes for Category and Product.
- Configuration of access to the BD.
- Controller for Category and Product

Security tables

- AppUser class
 - Connect to user table
 - Add appropriate data annotations
- AppUserClaim class
 - Connect to user claim table
 - Add appropriate data annotations



Security Manager Class

- AppUserAuth class
 - User info properties
 - User name
 - Bearer token
 - Is authenticated
- Security Manager class
 - ValidateUser method
 - Validate user name and password
 - Returns authorization object
 - GetUserClaims method
 - BuildUserAuth method
 - Map claims to authorization object

Security Controller

- Security controller class
 - Login method
 - Calls security manager to authenticate
 - Returns status of 200
 - Payload is an AppUserAuth object
 - Otherwise returns status of 404

Use JSON Web Tokens to Secure Web API Methods

- Secure Web API with [Authorize]
- Setup JSON Web Tokens
 - Add JWT package
 - Add JWT bearer token checking package
 - Store default JWT settings in configuration file
 - Register JWT as the authentication service
 - Add bearer token options to validate incoming token
 - Build JWT token and add to authorization object
- Read JWT settings from configuration
- Build bearer token
- Add Security Policy

I hope you enjoyed this course!



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