

Memos Auth Demo

Security Aspects in Software Engineering

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Introduction

This is CRUD application for demonstrating Authentication mechanism using Access-Refresh and JsonWebKeys. Users are able to Make an account, log in And log-out of the application. Only logged in users can perform CRUD operations On their memos.

Data Model

User:

- Id: ObjectId
- Username: string
- password: string

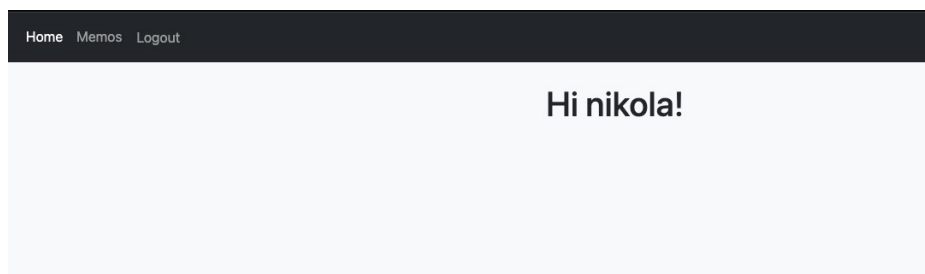
Memo:

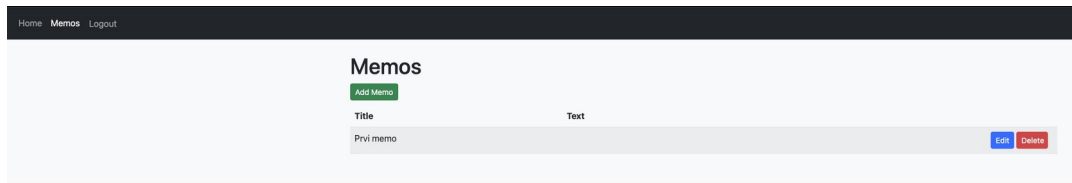
- Id: ObjectID
- Title: string
- Note: string

Screenshots of the Application



A screenshot of a web application's login form. The form is titled 'Login' and contains two input fields: 'Username' with the value 'nikola' and 'Password' with masked characters '.....'. Below the fields are two buttons: a blue 'Login' button and a blue 'Register' link.





Summary

This app uses multi-tenant strategy for authentication. Public and private keys are made for each tenant. JSON Web Keys are a set of cryptographic keys encoded in JSON format, providing a standardized way to represent and exchange public keys used in various security protocols, including JSON Web Tokens (JWTs). This mechanism offers easier key management, key rotation and are interoperable.

Although this mechanism is overkill for a simple CRUD application, it demonstrates a good way of resolving authentication flows in multi-tenant microservice architecture.