Create authentication service that returns JWT

package com.example.week4.util;

import io.jsonwebtoken.Jwts;

import io.jsonwebtoken.SignatureAlgorithm;

import io.jsonwebtoken.security.Keys;

import javax.crypto.SecretKey;

import java.util.Date;

import org.springframework.stereotype.Component;

*@Component*

public class JwtUtil {

// Generate a strong secret key for HS256 algorithm

private static final SecretKey ***key*** = Keys.*secretKeyFor*(*SignatureAlgorithm*.***HS256***);

public String generateToken(String username) {

return Jwts.*builder*()

.setSubject(username)

.setIssuedAt(new Date(System.*currentTimeMillis*()))

.setExpiration(new Date(System.*currentTimeMillis*() + 1000 \* 60 \* 60)) // 1 hour expiry

.signWith(***key***)

.compact();

}

}

//authenticate controller

package com.example.week4.controller;

import java.util.HashMap;

import java.util.Map;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

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

import org.springframework.web.bind.annotation.GetMapping;

import org.springframework.web.bind.annotation.RequestHeader;

import org.springframework.web.bind.annotation.RestController;

import com.example.week4.util.JwtUtil;

*@RestController*

public class AuthenticationController {

private static final Logger ***logger*** = LoggerFactory.*getLogger*(AuthenticationController.class);

*@Autowired*

private JwtUtil jwtUtil;

*@GetMapping*("/authenticate")

public Map<String, String> authenticate(*@RequestHeader*("Authorization") String authHeader) {

***logger***.info("START - authenticate()");

***logger***.debug("Authorization header: {}", authHeader);

String base64Credentials = authHeader.substring("Basic ".length());

String credentials = new String(java.util.Base64.*getDecoder*().decode(base64Credentials));

String username = credentials.split(":")[0]; // Extract username

String token = jwtUtil.generateToken(username);

Map<String, String> map = new HashMap<>();

map.put("token", token);

***logger***.info("END - authenticate()");

return map;

}

}

//security

package com.example.week4.security;

import org.springframework.context.annotation.Configuration;

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

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

@Configuration

@EnableWebSecurity

public class SecurityConfig extends WebSecurityConfigurerAdapter {

}

A screenshot of a computer

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