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| **Kitchen Story**  **(Project Source Code)** |

**Version History:**

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| Author | Jaydeep Kumar Mandal |
| Purpose | Source Code of the application |
| Date | 18th February 2023 |
| Version | 1.0 |

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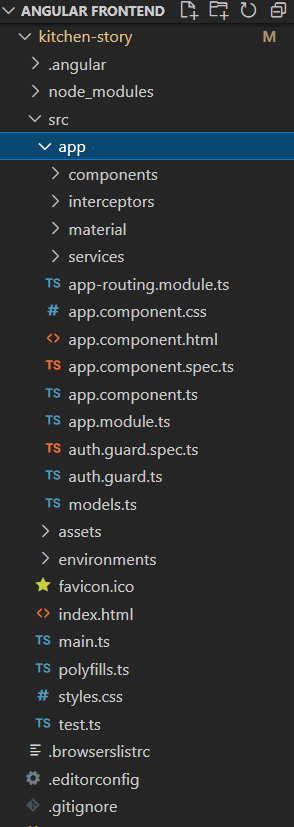
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* **Project Link**

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| **Repository Name** | **Kitchen Story** |
| GitHub Link | <https://github.com/Jaydeep-K-Mandal/Kitchen-Story> |

* **Folder Structure**



* **Source Code**
* **Configuration**

1. SecurityConfiguration.java

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| **package** com.Jay.kitchenstory.config;  **import** java.util.Arrays;  **import** org.springframework.beans.factory.annotation.Autowired;  **import** org.springframework.context.annotation.Bean;  **import** org.springframework.context.annotation.Configuration;  **import** org.springframework.security.authentication.AuthenticationManager;  **import** org.springframework.security.authentication.dao.DaoAuthenticationProvider;  **import** org.springframework.security.config.annotation.authentication.builders.AuthenticationManagerBuilder;  **import** org.springframework.security.config.annotation.web.builders.HttpSecurity;  **import** org.springframework.security.config.annotation.web.configuration.EnableWebSecurity;  **import** org.springframework.security.config.annotation.web.configuration.WebSecurityConfigurerAdapter;  **import** org.springframework.security.config.http.SessionCreationPolicy;  **import** org.springframework.security.core.userdetails.UserDetailsService;  **import** org.springframework.security.crypto.password.~~NoOpPasswordEncoder~~;  **import** org.springframework.security.crypto.password.PasswordEncoder;  **import** org.springframework.security.web.authentication.UsernamePasswordAuthenticationFilter;  **import** org.springframework.web.cors.CorsConfiguration;  **import** org.springframework.web.cors.CorsConfigurationSource;  **import** org.springframework.web.cors.UrlBasedCorsConfigurationSource;  **import** com.Jay.kitchenstory.filter.JwtRequestFilter;  @SuppressWarnings("deprecation")  @Configuration  @EnableWebSecurity  **public** **class** SecurityConfiguration **extends** WebSecurityConfigurerAdapter {  @Autowired  UserDetailsService userDetailsService;    @Autowired  **private** JwtRequestFilter jwtRequestFilter;    @Bean  **public** PasswordEncoder passwordEncoder() {  **return** ~~NoOpPasswordEncoder~~.~~getInstance~~();  }    @Bean  **public** DaoAuthenticationProvider authenticationProvider()  {  DaoAuthenticationProvider auth = **new** DaoAuthenticationProvider();  auth.setUserDetailsService(userDetailsService);  auth.setPasswordEncoder(passwordEncoder());  **return** auth;  }    @Override  @Bean  **public** AuthenticationManager authenticationManagerBean() **throws** Exception {  **return** **super**.authenticationManagerBean();  }    // authentication  @Override  **protected** **void** configure(AuthenticationManagerBuilder auth) **throws** Exception {  auth.authenticationProvider(authenticationProvider());  }    // authorization  @Override  **protected** **void** configure(HttpSecurity http) **throws** Exception {  http.cors().and().csrf().disable()  .authorizeRequests().antMatchers("/authenticate", "/registration", "/products").permitAll().  anyRequest().authenticated()  .and().sessionManagement().sessionCreationPolicy(SessionCreationPolicy.***STATELESS***);  http.addFilterBefore(jwtRequestFilter, UsernamePasswordAuthenticationFilter.**class**);  }    @Bean  CorsConfigurationSource corsConfigurationSource()  {  CorsConfiguration configuration = **new** CorsConfiguration();  configuration.setAllowedOriginPatterns(Arrays.*asList*("\*"));  configuration.setAllowedMethods(Arrays.*asList*("HEAD", "GET", "POST", "PUT", "DELETE", "PATCH"));  configuration.setAllowCredentials(**true**);  configuration.setAllowedHeaders(Arrays.*asList*("Authorization", "Cache-Control", "Content-Type"));  **final** UrlBasedCorsConfigurationSource source = **new** UrlBasedCorsConfigurationSource();  source.registerCorsConfiguration("/\*\*", configuration);  **return** source;  }    } |

1. JwtUtil.java

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| **package** com.Jay.kitchenstory.config;  **import** io.jsonwebtoken.Claims;  **import** io.jsonwebtoken.Jwts;  **import** io.jsonwebtoken.SignatureAlgorithm;  **import** org.springframework.security.core.userdetails.UserDetails;  **import** org.springframework.stereotype.Service;  **import** java.util.Date;  **import** java.util.HashMap;  **import** java.util.Map;  **import** java.util.function.Function;  @Service  **public** **class** JwtUtil {  **private** String SECRET\_KEY = "secret";  **public** String extractUsername(String token) {  **return** extractClaim(token, Claims::getSubject);  }  **public** Date extractExpiration(String token) {  **return** extractClaim(token, Claims::getExpiration);  }  **public** <T> T extractClaim(String token, Function<Claims, T> claimsResolver) {  **final** Claims claims = extractAllClaims(token);  **return** claimsResolver.apply(claims);  }  **private** Claims extractAllClaims(String token) {  **return** Jwts.*parser*().setSigningKey(SECRET\_KEY).parseClaimsJws(token).getBody();  }  **private** Boolean isTokenExpired(String token) {  **return** extractExpiration(token).before(**new** Date());  }  **public** String generateToken(UserDetails userDetails) {  Map<String, Object> claims = **new** HashMap<>();  **return** createToken(claims, userDetails.getUsername());  }  **private** String createToken(Map<String, Object> claims, String subject) {  **return** Jwts.*builder*().setClaims(claims).setSubject(subject).setIssuedAt(**new** Date(System.*currentTimeMillis*()))  .setExpiration(**new** Date(System.*currentTimeMillis*() + 1000 \* 60 \* 60 \* 48))  .signWith(SignatureAlgorithm.***HS256***, SECRET\_KEY).compact();  }  **public** Boolean validateToken(String token, UserDetails userDetails) {  **final** String username = extractUsername(token);  **return** (username.equals(userDetails.getUsername()) && !isTokenExpired(token));  }  } |

* **Controllers**

1. ProductController.java

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| **package** com.Jay.kitchenstory.controllers;  **import** java.util.List;  **import** org.springframework.beans.factory.annotation.Autowired;  **import** org.springframework.web.bind.annotation.CrossOrigin;  **import** org.springframework.web.bind.annotation.DeleteMapping;  **import** org.springframework.web.bind.annotation.GetMapping;  **import** org.springframework.web.bind.annotation.PathVariable;  **import** org.springframework.web.bind.annotation.PostMapping;  **import** org.springframework.web.bind.annotation.RequestBody;  **import** org.springframework.web.bind.annotation.RequestMapping;  **import** org.springframework.web.bind.annotation.RestController;  **import** com.Jay.kitchenstory.models.Product;  **import** com.Jay.kitchenstory.services.ProductService;  @RestController  @CrossOrigin(origins = "http://localhost:4200")  @RequestMapping("/products")  **public** **class** ProductController  {  @Autowired  **private** ProductService service;    @PostMapping  **public** String addProduct(@RequestBody Product product)  {  service.addProduct(product);  **return** "Product add success.";  }    @GetMapping  **public** List<Product> getProducts()  {  List<Product> productlist = service.getAllProducts();  **return** productlist;  }    @DeleteMapping("/delete/{prodId}")  **public** String deleteProduct(@PathVariable("prodId") String prodId) {  service.deleteProductById(prodId);  **return** "Product delete success.";  }  } |

1. RegistrationController.java

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| **package** com.Jay.kitchenstory.controllers;  **import** org.springframework.beans.factory.annotation.Autowired;  **import** org.springframework.http.ResponseEntity;  **import** org.springframework.security.authentication.AuthenticationManager;  **import** org.springframework.security.authentication.BadCredentialsException;  **import** org.springframework.security.authentication.UsernamePasswordAuthenticationToken;  **import** org.springframework.security.core.userdetails.UserDetails;  **import** org.springframework.web.bind.annotation.CrossOrigin;  **import** org.springframework.web.bind.annotation.PostMapping;  **import** org.springframework.web.bind.annotation.RequestBody;  **import** org.springframework.web.bind.annotation.RequestMapping;  **import** org.springframework.web.bind.annotation.RequestMethod;  **import** org.springframework.web.bind.annotation.RestController;  **import** com.Jay.kitchenstory.config.JwtUtil;  **import** com.Jay.kitchenstory.models.AuthenticationRequest;  **import** com.Jay.kitchenstory.models.AuthenticationResponse;  **import** com.Jay.kitchenstory.models.User;  **import** com.Jay.kitchenstory.services.MyUserDetailsService;  **import** com.Jay.kitchenstory.services.UserService;  @RestController  @CrossOrigin(origins = "http://localhost:4200")  **public** **class** RegistrationController {    @Autowired  **private** UserService service;    @Autowired  **private** AuthenticationManager authenticationManager;  @Autowired  **private** JwtUtil jwtTokenUtil;  @Autowired  **private** MyUserDetailsService userDetailsService;    @PostMapping("/registration")  **public** **void** registerUserAccount(@RequestBody User user)  {  user.setRoles("USER");  service.registerUser(user);  }    @RequestMapping(value = "/authenticate", method = RequestMethod.***POST***)  **public** ResponseEntity<?> createAuthenticationToken(@RequestBody AuthenticationRequest authenticationRequest) **throws** Exception {  **try** {  authenticationManager.authenticate(  **new** UsernamePasswordAuthenticationToken(authenticationRequest.getEmail(), authenticationRequest.getPassword())  );  }  **catch** (BadCredentialsException e) {  **throw** **new** Exception("Incorrect username or password", e);  }  **final** UserDetails userDetails = userDetailsService  .loadUserByUsername(authenticationRequest.getEmail());  **final** String jwt = jwtTokenUtil.generateToken(userDetails);  **return** ResponseEntity.*ok*(**new** AuthenticationResponse(jwt));  }  } |

* **Filters**

1. JwtRequestFilter.java

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| **package** com.Jay.kitchenstory.filter;  **import** org.springframework.beans.factory.annotation.Autowired;  **import** org.springframework.security.authentication.UsernamePasswordAuthenticationToken;  **import** org.springframework.security.core.context.SecurityContextHolder;  **import** org.springframework.security.core.userdetails.UserDetails;  **import** org.springframework.security.web.authentication.WebAuthenticationDetailsSource;  **import** org.springframework.stereotype.Component;  **import** org.springframework.web.filter.OncePerRequestFilter;  **import** com.Jay.kitchenstory.config.JwtUtil;  **import** com.Jay.kitchenstory.services.MyUserDetailsService;  **import** javax.servlet.FilterChain;  **import** javax.servlet.ServletException;  **import** javax.servlet.http.HttpServletRequest;  **import** javax.servlet.http.HttpServletResponse;  **import** java.io.IOException;  @Component  **public** **class** JwtRequestFilter **extends** OncePerRequestFilter {  @Autowired  **private** MyUserDetailsService userDetailsService;  @Autowired  **private** JwtUtil jwtUtil;  @Override  **protected** **void** doFilterInternal(HttpServletRequest request, HttpServletResponse response, FilterChain chain)  **throws** ServletException, IOException {  **final** String authorizationHeader = request.getHeader("Authorization");  String username = **null**;  String jwt = **null**;  **if** (authorizationHeader != **null** && authorizationHeader.startsWith("Bearer ")) {  jwt = authorizationHeader.substring(7);  username = jwtUtil.extractUsername(jwt);  }  **if** (username != **null** && SecurityContextHolder.*getContext*().getAuthentication() == **null**) {  UserDetails userDetails = **this**.userDetailsService.loadUserByUsername(username);  **if** (jwtUtil.validateToken(jwt, userDetails)) {  UsernamePasswordAuthenticationToken usernamePasswordAuthenticationToken = **new** UsernamePasswordAuthenticationToken(  userDetails, **null**, userDetails.getAuthorities());  usernamePasswordAuthenticationToken  .setDetails(**new** WebAuthenticationDetailsSource().buildDetails(request));  SecurityContextHolder.*getContext*().setAuthentication(usernamePasswordAuthenticationToken);  }  }  chain.doFilter(request, response);  }  } |

* **Models**

1. Product.java

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| **package** com.Jay.kitchenstory.models;  **import** org.springframework.data.annotation.Id;  **import** org.springframework.data.mongodb.core.mapping.Document;  @Document(collection = "products")  **public** **class** Product {    @Id  **private** String id;  **private** String productName;  **private** **double** price;  **private** String description;  **private** String image;    **public** Product() {}  **public** Product(String productName, **double** price, String description, String image) {  **this**.productName = productName;  **this**.price = price;  **this**.description = description;  **this**.image = image;  }  **public** String getImage() {  **return** image;  }  **public** **void** setImage(String image) {  **this**.image = image;  }  **public** String getId() {  **return** id;  }  **public** **void** setId(String id) {  **this**.id = id;  }  **public** String getProductName() {  **return** productName;  }  **public** **void** setProductName(String productName) {  **this**.productName = productName;  }  **public** **double** getPrice() {  **return** price;  }  **public** **void** setPrice(**double** price) {  **this**.price = price;  }  **public** String getDescription() {  **return** description;  }  **public** **void** setDescription(String description) {  **this**.description = description;  }  } |

1. User.java

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| **package** com.Jay.kitchenstory.models;  **import** org.springframework.data.annotation.Id;  **import** org.springframework.data.mongodb.core.index.Indexed;  **import** org.springframework.data.mongodb.core.mapping.Document;  @Document(collection = "users")  **public** **class** User {  @Id  **private** String id;  **private** String firstName;  **private** String lastName;  @Indexed(unique = **true**)  **private** String email;  **private** String password;  **private** String roles;    **public** User() {};  **public** User(String firstName, String lastName, String email, String password) {  **this**.firstName = firstName;  **this**.lastName = lastName;  **this**.email = email;  **this**.password = password;  }  **public** String getId() {  **return** id;  }  **public** **void** setId(String id) {  **this**.id = id;  }  **public** String getFirstName() {  **return** firstName;  }  **public** **void** setFirstName(String firstName) {  **this**.firstName = firstName;  }  **public** String getLastName() {  **return** lastName;  }  **public** **void** setLastName(String lastName) {  **this**.lastName = lastName;  }  **public** String getEmail() {  **return** email;  }  **public** **void** setEmail(String email) {  **this**.email = email;  }  **public** String getPassword() {  **return** password;  }  **public** **void** setPassword(String password) {  **this**.password = password;  }  **public** String getRoles() {  **return** roles;  }  **public** **void** setRoles(String roles) {  **this**.roles = roles;  }  } |