KB금융그룹 | 국민의 평생 금융파트너

2025년 상반기 K-디지털 트레이닝

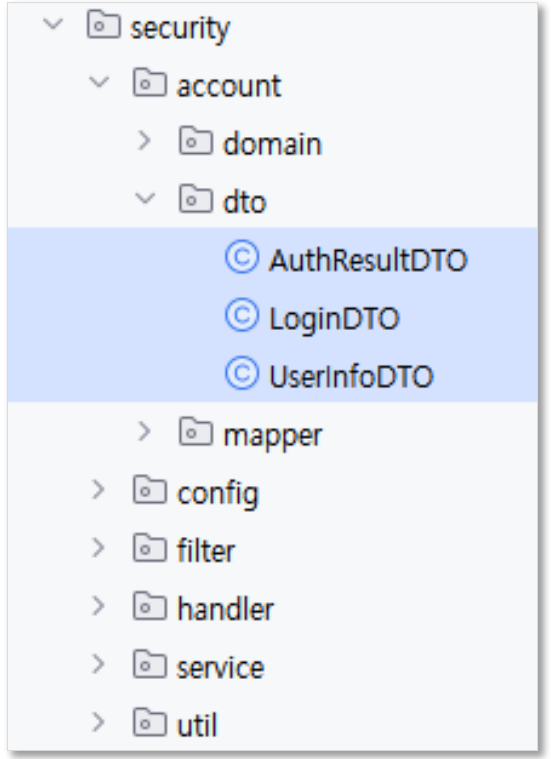
Spring Security JWT 인증 (심화 1)

[KB] IT's Your Life

KB 국민은행

Spring Security JWT 인증

- **사용자 로그인을 위해 필요한 다음 DTO 클래스를 정의하세요.**
  - LoginDTO
  - UserInfoDTO
  - AuthResultDTO



security.account.dto.LoginDTO.java

```
package org.scoula.security.account.dto;
...

@NoArgsConstructor
@AllArgsConstructor
@Data
public class LoginDTO {
    private String username;
    private String password;

    public static LoginDTO of(HttpServletRequest request) {
        ObjectMapper om = new ObjectMapper();
        try {
            return om.readValue(request.getInputStream(), LoginDTO.class);
        }catch (Exception e) {
            e.printStackTrace();
            throw new BadCredentialsException("username 또는 password가 없습니다.");
        }
    }
}
```

security.account.dto.UserInfoDTO.java

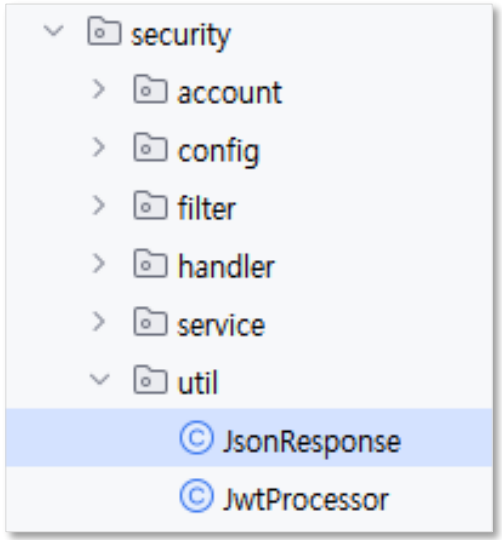
```
package org.scoula.security.account.dto;
…
@Data
@NoArgsConstructor
@AllArgsConstructor
public class UserInfoDTO {
   String username;
   String email;
   List<String> roles;

   public static UserInfoDTO of(MemberVO member) {
      return new UserInfoDTO(
            member.getUsername(),
            member.getEmail(),
            member.getAuthList().stream()
                  .map(a-> a.getAuth())
                  .toList()
      );
   }
}
```

security.account.dto.AuthResultDTO.java

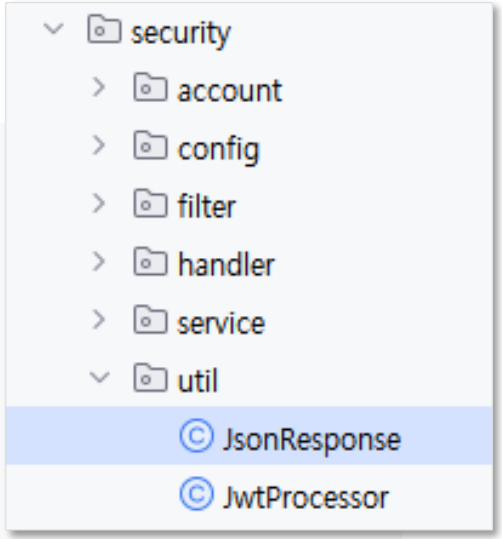
```
package org.scoula.security.account.dto;

import lombok.AllArgsConstructor;
import lombok.Builder;
import lombok.Data;
import lombok.NoArgsConstructor;

@Data
@NoArgsConstructor
@AllArgsConstructor
public class AuthResultDTO {
    String token;
    UserInfoDTO user;
}
```

Spring Security JWT 인증

- **Json 직접 응답을 내보내는 유틸리티 클래스 JsonResponse를 정의세요.**
  - static <T> void send(HttpServletResponse response, T result) throws IOException
    - Jackson으로 T를 직렬화 한 후 response로 직접 전송
  - static void sendError(HttpServletResponse response, HttpStatus status, String message) thr ows IOException
    - 응답 코드와 에러 메시지를 출력



security.util.JsonResponse.java




```
package org.scoula.security.util;

import com.fasterxml.jackson.databind.ObjectMapper;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServletResponse;
import java.io.IOException;
import java.io.Writer;

public class JsonResponse {
    public static <T> void send(HttpServletResponse response, T result) throws IOException {
        ObjectMapper om = new ObjectMapper();

        response.setContentType("application/json;charset=UTF-8");
        Writer out = response.getWriter();
        out.write(om.writeValueAsString(result));
        out.flush();
    }
```

security.util.JsonResponse.java

```
    public static void sendError(HttpServletResponse response, HttpStatus status, String message) throws IOException {
        response.setStatus(status.value());
        response.setContentType("application/json;charset=UTF-8");
        Writer out = response.getWriter();
        out.write(message);
        out.flush();
    }
}
```

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Spring Security JWT 인증 (심화 2)

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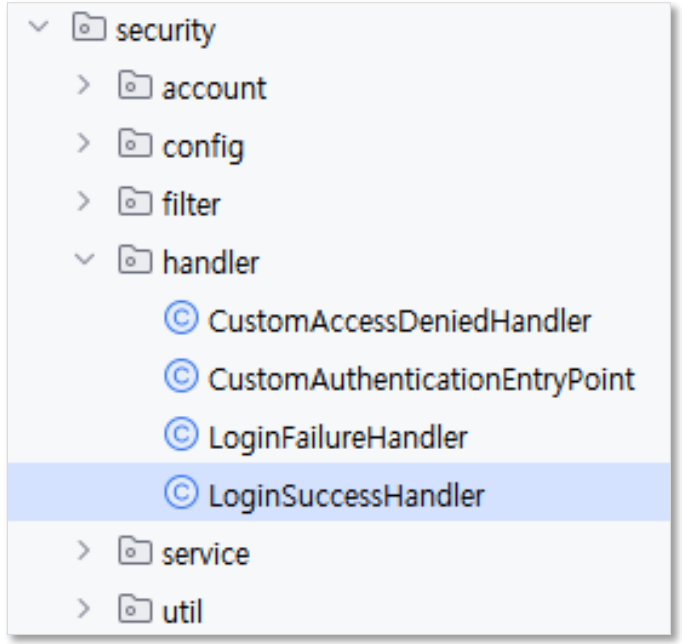
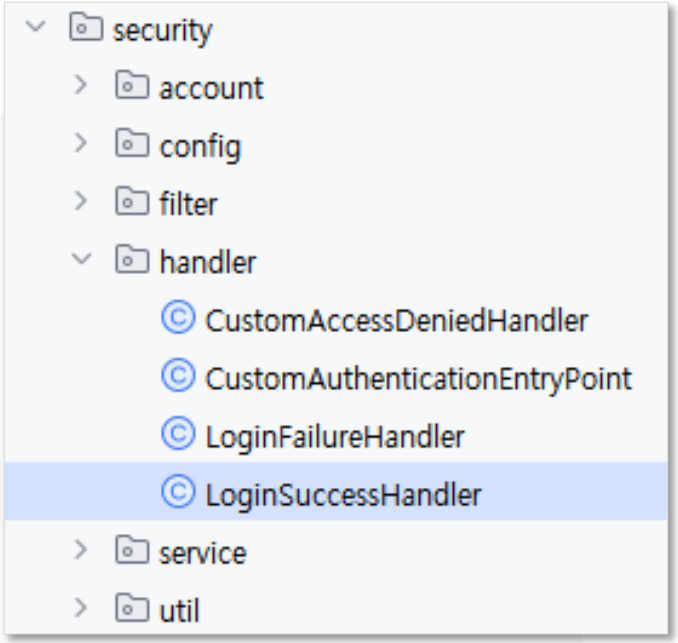
KB 국민은행

인증 성공 핸들러 LoginSuccessHandler를 정의하세요.

- 로그인 결과를 JSON으로 직접 응답
  - 접근 토큰, 갱신 토큰, 사용자 기본 정보(username, email, 권한목록 등)을 담아 json으로 응답



security.handler.LoginSuccessHandler.java




```
package org.scoula.security.handler;
...
import java.io.IOException;

@Log4j2
@Component
@RequiredArgsConstructor
public class LoginSuccessHandler implements AuthenticationSuccessHandler {
   private final JwtProcessor jwtProcessor;

   private AuthResultDTO makeAuthResult(CustomUser user) {
      String username = user.getUsername();
      // 토큰 생성
      String token = jwtProcessor.generateToken(username);
      // 토큰 + 사용자 기본 정보 (사용자명, ...)를 묶어서 AuthResultDTO 구성
      return new AuthResultDTO(token, UserInfoDTO.of(user.getMember()));
   }
```

security.handler.LoginSuccessHandler.java

```
  @Override
  public void onAuthenticationSuccess(HttpServletRequest request, HttpServletResponse response,
                  Authentication authentication) throws IOException, ServletException {
    // 인증 결과 Principal
    CustomUser user = (CustomUser) authentication.getPrincipal();

    // 인증 성공 결과를 JSON으로 직접 응답
    AuthResultDTO result = makeAuthResult(user);
    JsonResponse.send(response, result);
  }
}
```

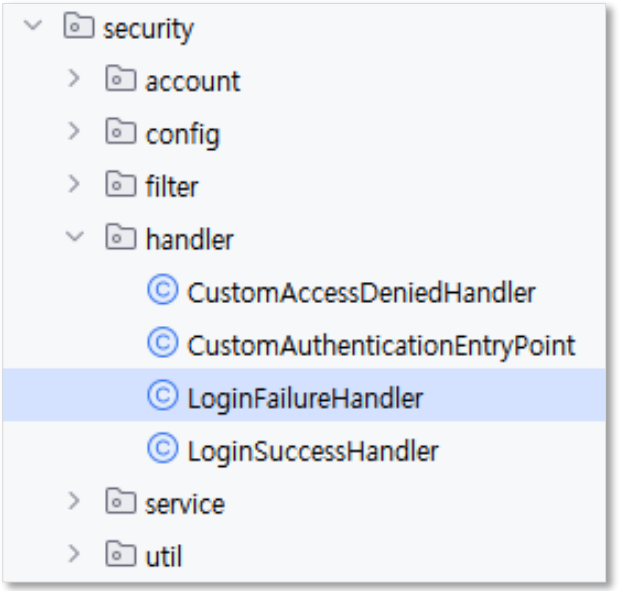
Spring Security JWT 인증

인증 실패 핸들러 LoginFailureHandler를 정의하세요.

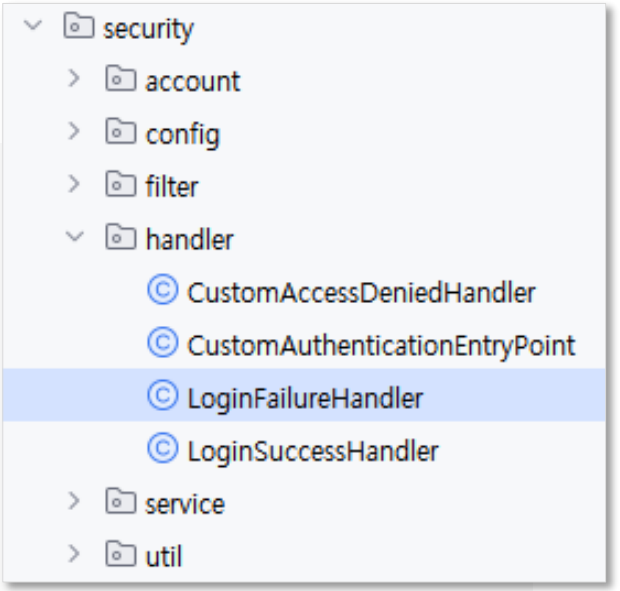
- AuthenticationFailureHandler 인터페이스 구현체

```
public interface AuthenticationFailureHandler {
    void onAuthenticationFailure(
            HttpServletRequest request,
            HttpServletResponse response,
            AuthenticationException exception)
           throws IOException, ServletException;
}
```

- 기본 예외 처리로 이동
  - ApiExceptionAdvice에서 예외 응답하도록 유도



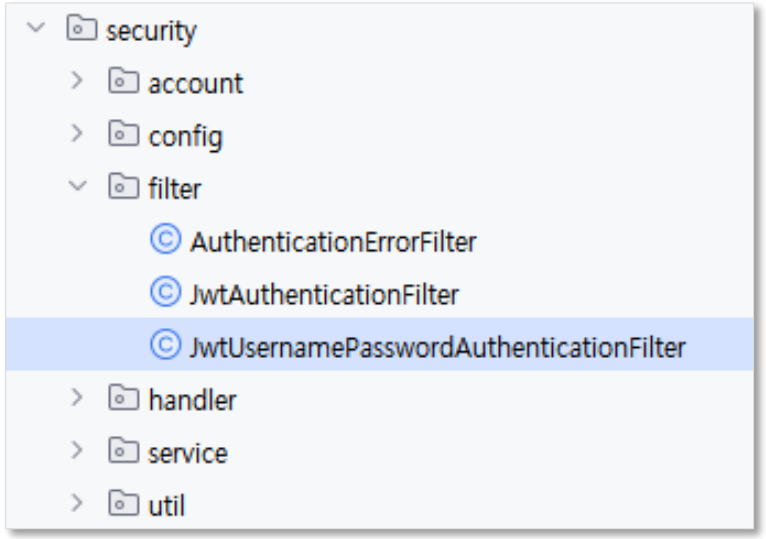
security.handler.LoginFailureHandler.java




```
package org.scoula.security.handler;
...
import java.io.IOException;

@Component
public class LoginFailureHandler implements AuthenticationFailureHandler {

   @Override
   public void onAuthenticationFailure(HttpServletRequest request, HttpServletResponse response,
                AuthenticationException exception) throws IOException, ServletException {

      JsonResponse.sendError(response, HttpStatus.UNAUTHORIZED, "사용자 ID 또는 비밀번호가 일치하지 않습니다.");
   }
}
```

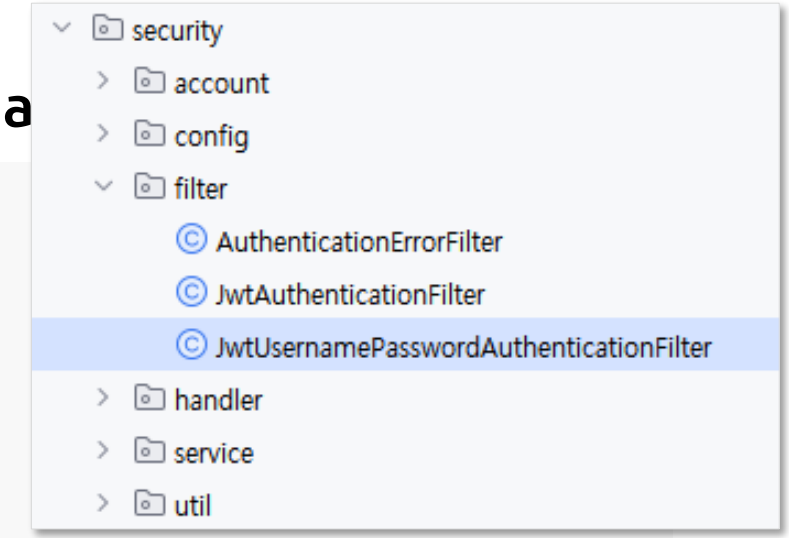
Spring Security JWT 인증

- **JwtUsernamePasswordAuthenticationFilter를 정의하세요.**
  - UsernamePasswordAuthenticationFilter 인터페이스 구현



Spring Security JWT 인증

security.filter.JwtUsernamePasswordAuthenticationFilter.ja



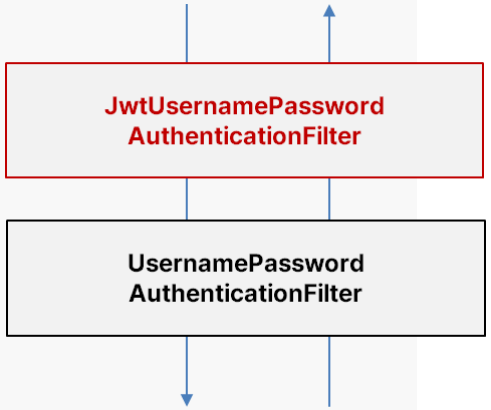

```
package org.scoula.security.filter;
...
import org.springframework.security.core.Authentication;
...

@Log4j2
@Component
public class JwtUsernamePasswordAuthenticationFilter extends UsernamePasswordAuthenticationFilter {
                                // 스프링 생성자 주입을 통해 전달
  public JwtUsernamePasswordAuthenticationFilter(
        AuthenticationManager authenticationManager,        // SecurityConfig가 생성된 이후에 등록됨
        LoginSuccessHandler loginSuccessHandler,
        LoginFailureHandler loginFailureHandler) {
    super(authenticationManager);

    setFilterProcessesUrl("/api/auth/login");                          // POST 로그인 요청 url
    setAuthenticationSuccessHandler(loginSuccessHandler);  // 로그인 성공 핸들러 등록
    setAuthenticationFailureHandler(loginFailureHandler);  // 로그인 실패 핸들러 등록
  }
```

security.filter.JwtUsernamePasswordAuthenticationFilter.java

```
// 로그인 요청 URL인 경우 로그인 작업 처리
@Override
public Authentication attemptAuthentication(HttpServletRequest request, HttpServletResponse response)
        throws AuthenticationException {

    // 요청 BODY의 JSON에서 username, password → LoginDTO
    LoginDTO login = LoginDTO.of(request);

    // 인증 토큰(UsernamePasswordAuthenticationToken) 구성
    UsernamePasswordAuthenticationToken authenticationToken =
            new UsernamePasswordAuthenticationToken(login.getUsername(), login.getPassword());

    // AuthenticationManager에게 인증 요청
    return getAuthenticationManager().authenticate(authenticationToken);
}

}
```

security.config.SecurityConfig.java

```
public class SecurityConfig extends WebSecurityConfigurerAdapter {
  …
  @Autowired
  private JwtUsernamePasswordAuthenticationFilter jwtUsernamePasswordAuthenticationFilter;
  …
  @Override
  public void configure(HttpSecurity http) throws Exception {
    // 한글 인코딩 필터 설정
    http.addFilterBefore(encodingFilter(), CsrfFilter.class)
    // 로그인 인증 필터
      .addFilterBefore(jwtUsernamePasswordAuthenticationFilter, UsernamePasswordAuthenticationFilter.class);

    http.httpBasic().disable()                    // 기본 HTTP 인증 비활성화
        .csrf().disable()      // CSRF 비활성화
        .formLogin().disable()  // formLogin 비활성화     관련 필터 해제
        .sessionManagement().sessionCreationPolicy(SessionCreationPolicy.STATELESS); // 세션 생성 모드 설정
  }
```



○ JwtUsernamePasswordAuthenticationFilter의 위치 설정

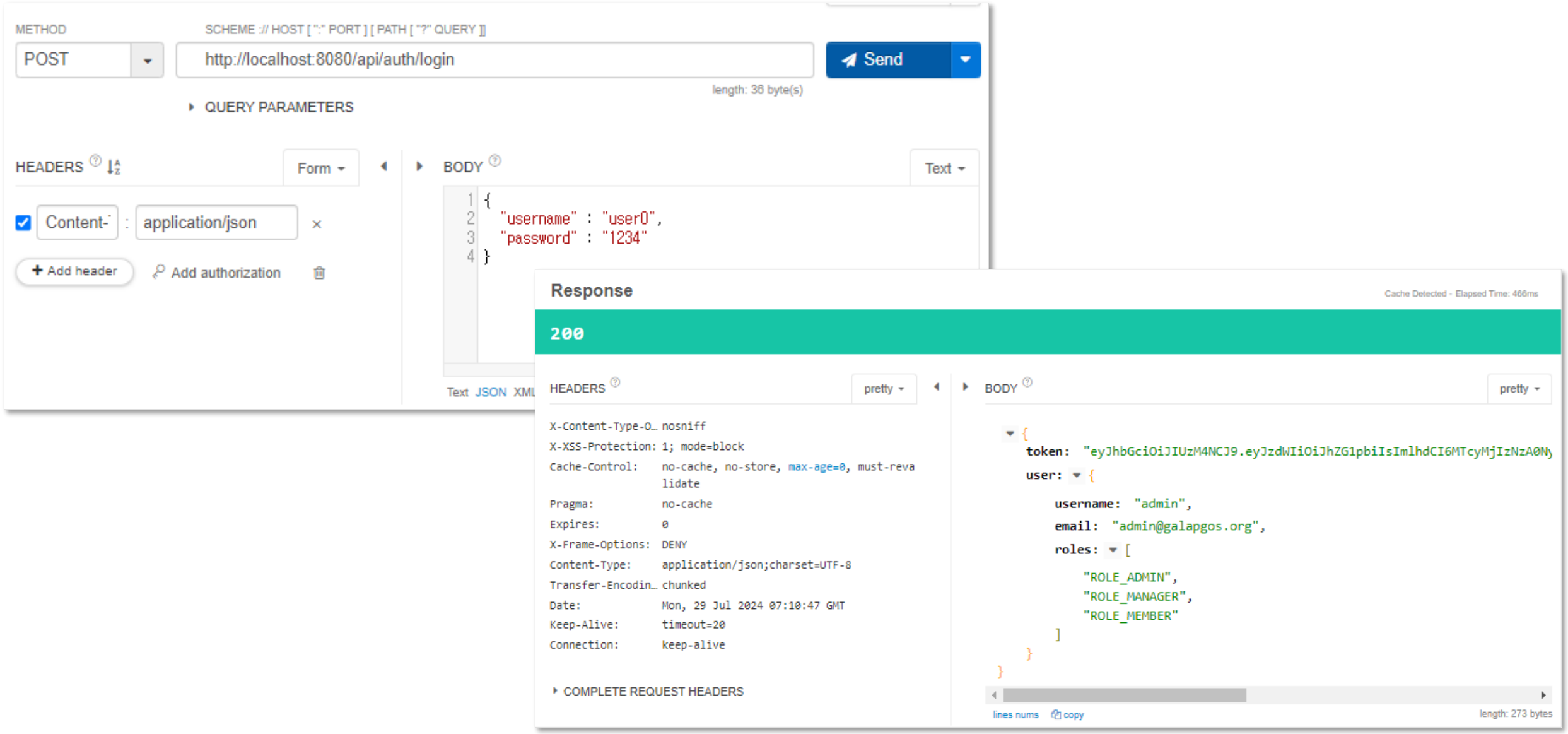
- 기존 필터를 기준으로 설정

Spring Security JWT 인증

- 로그인 요청을 Talend API Tester로 확인하세요.

Spring Security JWT 인증

로그인 요청



Spring Security JWT 인증

로그인 요청