**AuthenticationController.java:**package com.cognizant.springlearn.controller;

import org.slf4j.Logger;

import org.slf4j.LoggerFactory;

import org.springframework.web.bind.annotation.\*;

import java.util.Base64;

import java.util.HashMap;

import java.util.Map;

@RestController

public class AuthenticationController {

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

@GetMapping("/authenticate")

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

LOGGER.info("START authenticate()");

LOGGER.debug("Authorization Header: {}", authHeader);

String user = getUser(authHeader); // Extract username

LOGGER.debug("Extracted User: {}", user);

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

map.put("token", ""); // JWT token will be added later

LOGGER.info("END authenticate()");

return map;

}

private String getUser(String authHeader) {

LOGGER.debug("START getUser()");

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

byte[] decodedBytes = Base64.getDecoder().decode(encodedCredentials);

String decodedCredentials = new String(decodedBytes); // e.g., "user:pwd"

LOGGER.debug("Decoded Credentials: {}", decodedCredentials);

String username = decodedCredentials.split(":", 2)[0];

LOGGER.debug("Extracted Username: {}", username);

LOGGER.debug("END getUser()");

return username;

}

}