**Week – 3 (5. 5. JWT-handson**

Exercise: Creating Authentication Service to Read Basic Auth Credentials

Prerequisites

Java Spring Boot project setup with Spring Web dependency.

Knowledge of HTTP Basic Authentication and Base64 encoding.

Implementation Details1. Controller Creation

We create a Spring REST controller named AuthenticationController in the package com.example.demo.controller.

2. Endpoint

The /authenticate endpoint is defined with @GetMapping annotation to accept GET requests.

3. Reading Authorization Header

The method reads the Authorization header via @RequestHeader.

4. Decoding Credentials

The header value is checked to confirm it starts with "Basic ".

The base64 encoded portion is extracted.

Using Java’s Base64 decoder, the string is decoded to reveal username:password.

The string is split to separate the username and password.

5. Response

For this step, the service simply returns a string showing the extracted username and password to verify the logic works.

Code:

package com.example.demo.controller;

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

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

import java.nio.charset.StandardCharsets;

import java.util.Base64;

@RestController

public class AuthenticationController {

@GetMapping("/authenticate")

public String authenticate(@RequestHeader(name = "Authorization", required = false) String authHeader) {

if (authHeader == null || !authHeader.startsWith("Basic ")) {

return "Missing or invalid Authorization header";

}

// Extract Base64 encoded credentials

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

byte[] decodedBytes = Base64.getDecoder().decode(base64Credentials);

String credentials = new String(decodedBytes, StandardCharsets.UTF\_8);

// Split username and password tokens

final String[] values = credentials.split(":", 2);

if (values.length != 2) {

return "Invalid Authorization header format";

}

String username = values[0];

String password = values[1];

// Return extracted username and password

return "Username: " + username + ", Password: " + password;

}

}

Testing:

bash

curl -s -u user:pwd http://localhost:8090/authenticate