# **Lab: State Management**

## **Exercise 1: Identify the Caller**

Your application must be able to detect where requests are coming from. Implement a basic web logic that checks for a custom request header called **X-Client-Type** and responds differently based on its value. If the header is **missing** or **empty**, respond with a **default message**. If the value is "**mobile**", "**web**", or "**admin-panel**", respond with a specific message for each. You can test the behavior by sending requests using Postman with and without that custom header.

* If the value is "**web**", return "**Welcome, web user!** ".
* If the value is "**mobile**", return "**Hello from the mobile interface.** ".
* If the value is "**admin-panel**", return "**Admin access granted.** ".
* If the header is missing or has any other value, return "**Unknown client. Please specify 'X-Client-Type' header.**".

## **Exercise 2: Cookie Letter**

Implement a controller that serves the **/letters** page. The controller must support two operations:

* fetching the page
* updating the selected letter preference.

When the page is accessed, it must check for a cookie named **favouriteLetter**. If the cookie exists, its value **must be displayed** in the letter box. When a letter is selected, the controller must store it in a cookie named **favouriteLetter** and redirect to the same page. Analyze how the letters are passed to the controller from the HTML page and use that data to set the correct cookie value.

**Note:** You are provided with a ready project in the resources folder. Use the existing HTML file for this exercise.

## **Exercise 3: SoftUni Upcoming Courses**

You are logged into the SoftUni website using a browser. Your task is to simulate an authenticated request from an external tool without using the browser. To do this, inspect how your logged-in session is maintained by the browser. Using the information you find, make a **GET** request to **https://softuni.bg** using an external client such as Postman. You are not allowed to log in from Postman — only to reuse the existing session that comes from your browser. Your goal is to **receive a response** that includes your upcoming courses. If your request is successful, the response will contain an HTML section with **id="Upcoming-Courses"**, showing your personal upcoming courses, content that is visible only when logged in.

## **Exercise 4: Working Hours**

Create an interceptor that **blocks access** to all endpoints outside of allowed working hours. If a request is received **before 8:00** or **after 18:00**, the interceptor **must stop** the request and return a message: "**Access not allowed outside working hours.**". During allowed hours, requests must continue normally.