

## Lab 5: JavaScript in the Browser

In this lab, you will add dynamic behaviors to the FilmLibrary interface you implemented in Lab 4.

### 1. Populate the Film Library

Starting from the outcome of the previous lab, replace the hard-coded films displayed in the main content area with a dynamically populated list of films. For this purpose, use the same **FilmLibrary** object you created in Lab 1 (Exercise 1: “Create a Film Library”), containing the films with their corresponding data. This **FilmLibrary** object must be declared in a JavaScript file, which you then import into the HTML file.

Modify the GUI to display the films dynamically in the main content of the page. Use the methods for DOM manipulation to dynamically populate the list of films defined in the JavaScript data structure (e.g., `getElementById`, `createElement`).

Make sure that when you (manually) update the films in the JS Films array of the **FilmLibrary** object and reload the page, the list in the main content area updates accordingly.

### 2. Let's make the filters work!

Implement the filtering functionality by linking items in the left sidebar to the following filters:

- **All**: Shows all films in the Film Library.
- **Favorite**: Displays only favorite films.
- **Best Rated**: Shows films rated five out of five.
- **Seen Last Month**: Displays films watched in the last 30 days.

Use the DOM manipulation methods to **update** the list of films displayed on the webpage based on the applied filter. When a filter is applied, you must update the main content where the films are displayed.

The filtering function should not modify the original set of Films in the JavaScript data structure; it should just return a subset of them.

Lastly, include some film entries in the **FilmLibrary** so you can test all the filters.

**Note:** Only one filter can be active at a time. By default, “All” is the active filter, as specified in the previous lab. The interface should clearly indicate the currently selected filter, and it should display the name of the active filter at the top of the main content area.

### 3. Optional: Enable film deletion functionality

Enable users to delete specific films by adding a trash icon (🗑️) next to the Films' title and linking it to a JS function that removes the corresponding Film from the **FilmLibrary** array. When a film is deleted, the list of films should update automatically, maintaining the current active filter.

#### Notes:

1. As in the previous lab, use the Bootstrap framework and its components (version 5.3)
2. You can include day.js library in your HTML page using the instructions at the following link: <https://day.js.org/docs/en/installation/browser>  
Remember to use the `defer` keyword to postpone the loading of the script.
3. You can use the available Lab 4 solution as starting point: <https://github.com/polito-webapp1/lab-2024/tree/main/lab04-html-css>