Lab 6: Getting Started with React

We'll begin developing the front end of our web-based Film Library using React. The design should adhere to the specifications outlined in Lab 4 (https://github.com/polito-webapp1/lab-2024/blob/main/lab04-html-css/lab04-html-css.pdf).

As part of this process, you'll restructure the Film Library to leverage React's component-based approach. This involves breaking down the application into distinct components, identifying the necessary state and props for storing and displaying films and implementing functionality to filter the displayed films.

1. Create and configure the React application

First, create a new React app using **Vite**. Then, use the React-enabled version of Bootstrap and its components to structure the front end of your web-based Film Library. You can find the documentation at https://react-bootstrap.github.io/.

Organize the page using React functional components stored in different files. Your application, for example, might have distinct components to manage the *navigation bar*, the *sidebar*, and the *list of films*.

Finally, add a suitable set of *props* and *states* to each component. Similarly to Lab 5, states and props for visualizing films must be initialized using a proper JS data structure (i.e., an array of Films). To display the FilmLibrary, decide which components hold the states, and how information propagates using props.

Note: for this exercise, don't make the page interactive yet. Things like the favorite checkbox won't do anything for now. Your focus is on designing and implementing the main components needed to display the layout from Lab 4 accurately.

2. Implement the Filters

Create all the suitable functions to implement the filters described below. Only the films respecting the specified filter criteria must be visualized when a filter is clicked. Specifically, filtering should not affect the state(s) value used to store the films, but **only** their visualization. To implement the filtering, you must associate the items in the sidebar with the following actions:

- **All**: display *all* the films in the FilmLibrary (default filter).
- **Favorite**: display only films marked as *favorites.*
- **Best Rated**: display only films whose score is *five out of five*.
- **Seen Last Month**: display only films watched *between today and the last 30 days*.
- **Unseen**: display only films *without a watch date*.

Notes:

1. For handling dates and times, you can continue to exploit Day.js.
2. You can use find the FilmLibrary logo (plus other useful icons) in the Bootstrap Icons site: *https://icons.getbootstrap.com*