

MediaMarktSaturn Technology

Challenge for the job opening *Frontend Developer*

Imagine you just started working at a retail company that has started adopting React.js and TypeScript as the main frontend technologies. Greatly motivated to be one of the pioneers in the area of frontend engineering in your company your boss assigns your department the task of creating a first frontend for a product information service.

This little web application should be able to retrieve JSON information about at least five (5) products with product name, product number, description, image, and price from a simple HTTP backend via fetch API. In order to keep the code clean you will want to use `async/await` to handle Promises given by the fetch API. After retrieving the data it should be rendered via some sensibly defined React components. In order to demonstrate the reactive character of a React frontend when updating components in the frontend you will also implement a text box that searches over the articles' names with a simple `String.includes` and serves as a filter, to only show articles matching the search criteria.

Following are the relevant technologies to use:

- ECMAScript 6+ with **async**
- TypeScript 2.5+ as a bonus instead of ECMAScript 6+
- React.js
- Webpack

Deliverables: Build a simple React frontend and HTTP backend

1. The backend can simply deliver some hardcoded product info on an endpoint
2. The frontend retrieves data via `fetch` API from backend
3. The frontend renders the list of product information via React
4. The frontend allows for filtering products by product name

Bonus assignment: Use TypeScript instead of ECMAScript as programming language for the frontend.

Further remarks:

- `ReactDOM.render()` should only be used once in the code.
- Use open source and free technologies whenever possible.
- The assignment will be presented in a live demo.
- As you will probably not have an internet connection in the presentation room, please make sure the assignment works offline.
- If you encounter any problems, including not having a suitable notebook to take to the interview day, please contact us as soon as possible.