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https://github.com/aleksa0809/Business-from-scratch/tree/proof_of_concept

PROOF OF CONCEPT

This projects demonstrates the following skills:

- controlling development process with GIT tools (previous version saved on the separate branch);
- installing of React environment (react-scripts);
- building and live development of React project;
- adding external packages to the project (bootstrap, react-toastify, react-router-dom);
- creating custom react components (showcase, basket, card, navbar, left menu, context, welcome, loader);
- conditional rendering (the showcase component);
- using State (the basket-counter component);
- working with local storage (the basket component);
- creating documentation.

Details of creating the project are described in README.md and app.md documents.

Documentation

Explain in your own words what is important to keep in mind when creating web applications with React (approximately three paragraphs).

Creating application with React needs preparation of software environment. The program NodeJS must be installed. Some additional modules must be installed with yarn or npm commands: webpack, Babel and so on. A programmer can simplify the installation by using ready templates (react-scripts).

A programmer can use the command yarn start for viewing results of development. This command runs live server that reflects all changes in edited files in real time and shows them in browser.

When the developing is done, ready application can be built as static files with command yarn build.

Ready to use files are placed into special directory (build), then they can be deployed to remote server side. It is important to remember that React is not a server framework, it helps to create frontend applications, not backend.

Moreover, the React is not connected with any CSS framework, it can be used with any appearance: bootstrap, Bulma, Uikit.

Describe and explain the area of use of the framework / library in addition to React that you used in your application.

In the application some additional software is used: react-router-dom, react-toastify.

React-router-dom creates routers that help to show needed content in the central part of the page: greeting, basket, database search and so on. It reacts on clicking on special links that are placed on the left side of the page.

React-toastify shows signals for user, they appear as colorful areas that inform about errors or successful actions.

Explain in your own words what is important to keep in mind when using local data in React (roughly one paragraph).

React applications can store data in the state of component. The state can be created in the constructor of component (class) and can be changed using the function `setState`.

React can save the state in a local storage of browser in a standard way. It is important to remember that local storage keeps items as simple strings, not objects. To convert strings to objects a programmer should use a JSON library or similar tools.

Reflection

What measures have you implemented in your source code management to be able to roll back and further develop the project in the future? Why are these appropriate choices?

The git SVC is used for controlling source code of the project. This system keeps versions of code and gives a programmer the ability of switching between different branches and commits. So, there is an ability to return to any saved state of development.

Regarding the library / framework in addition to React that you added to your project - what do you think this package adds to the strengths of your project and what limitations does it introduce for future design choices?

The library react-toastify is used in this project, it gives users additional convenience: they can see changes of basket state that is invisible when they see the showcase. The limitation of using it connected with versioning of the library: there is no guarantee in the future its functionality will remain the same.

Analyze and reflect on the possible construction process you used to compile the JSX code in your project - what was good and bad about choosing this method?

The react-scripts package is used for compilation JSX code. The advantage of such a method is simplicity of installing. The disadvantage is difficulty to customize: to setup app.html instead of index.html, a programmer must execute a special command (yarn eject).