React Task 5 - React tests

This is the last part of the application.
In this assignment, you should continue to work on your project with a slight modification.
This module was designed to teach how to work with tests in React.

Prerequisite:

Firstly, you need to install the jest and @testing-library/react modules in your project using npm:

1. Go to your project directory

2. Add command `npm run test:nowatch` to the **prepublish** script in the `package.json` file.

   Result in the package.json:

   ```
   "prepublish": "npm run eslint:fix && npm run test:nowatch"
   ```

   Result in the app:
   If some of your unit tests are failed you will not be able to commit your changes.

3. Install Jest

   ```
   npm i jest --save
   ```

4. Install @testing-library/react

   ```
   npm install --save-dev @testing-library/react
   ```

5. Create new folders and `.test.js` file with tests:

   ```
   src
   |
   |-- components
   |    |-- Header
   |    |    |__ tests
   |    |    |    |__ header.test.js //file for tests
   |    |    |    |
   |    |    |    |__ ...
   |    |    |
   |    |-- CourseForm
   |    |    |-- tests
   |    |    |    |__ courseForm.test.js //file for tests (EXTRA TASK)
   |    |    |
   ```

```
|    |    |__ ...
|    |
|    |
|    |-- Courses
|    |    |-- tests
|    |    |    |__ courses.test.js //file for tests
|    |    |
|    |    |__ components
|    |        |__ CourseCard
|    |        |    |__ tests
|    |        |    |    |__ courseCard.test.js //file for tests
|    |        |    |
|    |        |    |__ ...
|    |        |
|    |        |__ ...
|    |
|    |__ ...
|
|-- store
|    |-- tests
|    |    |__ reducer.test.js //file for
|    |
|    |__ ...
|
|__ // ...
```

6. Run your tests

```
npm run test
```

> Use `.test.js` extension for files with tests

> ⚠ WARNING
> An error may occur when running tests.
> Change jest version in `package.json` to `26.6.0`

> ⚠ WARNING
> When you run your tests (`npm run test`) they will crash because you have files with a `.test.js`
> extension without tests.
> This problem will go away when you add tests to these files.

Criteria (20 points max)

Add test for **Header**:

- [2 points] - **Header** should have logo and user's name.

Add tests for **CourseCard**:

- [1 point] - **CourseCard** should display title.

- [1 point] - **CourseCard** should display description.

- [1 point] - **CourseCard** should display duration in the correct format.

- [1 point] - **CourseCard** should display authors list.

- [1 point] - **CourseCard** should display created date in the correct format.

Add tests for **Courses**:

- [2 points] - **Courses** should display amount of CourseCard equal length of courses array.

- [1 point] - **Courses** should display Empty container if courses array length is 0.

- [2 points] - **CourseForm** should be showed after a click on a button "Add new course".

Add test for **coursesReducer**:

- [1 point] - **reducer** should return the initial state.

- [1 point] - **reducer** should handle SAVE_COURSE and returns new state.

- [1 point] - **reducer** should handle GET_COURSES and returns new state

Script in the `package.json`:

- [5 points] - pre-commit hook works correctly:
  There is no ability to commit changes if some of unit tests are failed.

EXTRA TASK:

Add tests for **CourseForm**:

- **CourseForm** should show authors lists (all and course authors).

- **CourseForm** 'Create author' click button should call dispatch.

- **CourseForm** 'Add author' button click should add an author to course authors list.

- **CourseForm** 'Delete author' button click should delete an author from the course list.

> Find information about tests writing in the INSTRUCTIONS file