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ЛАБОРАТОРНА РОБОТА №5
З предмету: «Веб-технології та веб-дизайн»

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Unit Tests

1. Package.json

Використаємо Jest та Enzyme для тестування React-проекту:

```
package.json > {} scripts > eject
1  {
2    "name": "wanderlance",
3    "version": "0.1.0",
4    "private": true,
5    "dependencies": {
6      "@testing-library/jest-dom": "^4.2.4",
7      "@testing-library/react": "^9.5.0",
8      "@testing-library/user-event": "^7.2.1",
9      "babel-jest": "^24.9.0",
10     "enzyme": "^3.11.0",
11     "enzyme-adapter-react-16": "^1.15.2",
12     "enzyme-to-json": "^3.5.0",
13     "jest": "^24.9.0",
14     "react": "^16.13.1",
15     "react-dom": "^16.13.1",
16     "react-image-gallery": "^1.0.7",
17     "react-router-dom": "^5.1.2",
18     "react-scripts": "3.4.1",
19     "react-test-renderer": "^1.1.2",
20     "reactstrap": "^8.4.1"
21   },
22   "scripts": {
23     "start": "react-scripts start",
24     "build": "react-scripts build",
25     "test": "react-scripts test",
26     "eject": "react-scripts eject"
27   },
28   "eslintConfig": {
29     "extends": "react-app"
30   },
31   "browserslist": {
32     "production": [
33       ">0.2%",
34       "not dead",
35       "not op_mini all"
36     ],
37     "development": [
38       "last 1 chrome version",
39       "last 1 firefox version",
40       "last 1 safari version"
41     ]
42   }
43 }
44
```

2. Header Component Test

```
src > components > tests > JS HeaderComponentTest.test.js > describe('HeaderComponent') callback > describe('Header container i
1  import React from 'react';
2  import Header from '../HeaderComponent';
3  import { shallow } from 'enzyme';
4
5
6  describe('HeaderComponent', () => {
7
8      const props = {
9          id: null,
10         username: "",
11         first_name: "",
12         last_name: "",
13         last_login: null,
14         date_joined: null,
15         fetched: false,
16         image: null
17     };
18
19
20     describe('Header container initial', () => {
21         const headerContainer = (<Header {...props} />)
22
23         it('renders properly', () => {
24             expect(headerContainer).toMatchSnapshot()
25         })
26
27         const component = shallow(<Header {...props} />)
28
29         it('firstly no user data', () => {
30             expect(component.state().id).toEqual(null);
31             expect(component.state().first_name).toEqual("");
32             expect(component.state().last_name).toEqual("");
33             expect(component.state().last_login).toEqual(null);
34             expect(component.state().date_joined).toEqual(null);
35             expect(component.state().image).toEqual(null);
36         })
37     })
38
39
40
41 })
```

3. Footer Component Test

```
src > components > tests > JS FooterTest.test.js > ...
1  import React from 'react';
2  import Footer from '../Footer';
3  import { shallow } from 'enzyme';
4
5
6  describe('FooterComponent', () => {
7
8
9      describe('Footer container initial', () => {
10         const FooterContainer = (<Footer/>)
11
12         it('renders properly', () => {
13             expect(FooterContainer).toMatchSnapshot()
14         })
15
16         const component = shallow(<Footer/>)
17         any
18         it('company name visible', () => {
19             expect(component.find('#company_name').text()).toEqual('@Wanderlance 2020')
20         })
21
22
23     })
24
25
26
27
28
```


4. Image Uploader Test

```
src > components > tests > JS ImageUploaderTest.test.js > describe('ImageUploaderComponent') callback >
1  import React from 'react';
2  import ImageUploader from '../ImageUploader';
3  import { shallow } from 'enzyme';
4
5
6  describe('ImageUploaderComponent', () => {
7
8      describe('ImageUploader container initial', () => {
9         const ImageUploaderContainer = (<ImageUploader/>)
10
11         it('renders properly', () => {
12             expect(ImageUploaderContainer).toMatchSnapshot()
13         })
14
15         const component = shallow(<ImageUploader />)
16         it('ImgUrl default value ', () => {
17             expect(component.state().image).toEqual(null)
18         })
19
20
21
22     })
23
24
25
26
```

5. User Card Component Test

```
src > components > tests > JS UserCardTest.test.js > describe('UserCardComponent') callback > describe('UserCard container in
1  import React from 'react';
2  import UserCard from '../user-card';
3  import { shallow } from 'enzyme';
4
5
6  describe('UserCardComponent', () => {
7
8
9      describe('UserCard container initial', () => {
10         const UserCardContainer = (<UserCard/>)
11
12         it('renders properly', () => {
13             expect(UserCardContainer).toMatchSnapshot()
14         })
15
16         const component = shallow(<UserCard/>)
17
18         it('should render avatar', ()=>{
19             expect(component.find('#user-avatar')).toBeDefined()
20         })
21
22         it('should render owner link and info', ()=>{
23             expect(component.find('#link-to-owner')).toBeDefined()
24         })
25     })
26 })
27
28
29
30 })
```

Результати виконання тестів

 npm

```
PASS src/components/tests/FooterTest.test.js (7.692s)
PASS src/components/tests/ImageUploaderTest.test.js (7.693s)
> 1 snapshot obsolete.
  • FooterComponent Footer container initial renders properly 1
PASS src/components/tests/HeaderComponentTest.test.js (7.999s)
PASS src/components/tests/UserCardTest.test.js (8.019s)
PASS src/App.test.js (12.475s)

Snapshot Summary
> 1 snapshot obsolete from 1 test suite. To remove it, press `u`.
  @ src/components/tests/ImageUploaderTest.test.js
    • FooterComponent Footer container initial renders properly 1

Test Suites: 5 passed, 5 total
Tests:      10 passed, 10 total
Snapshots:  1 obsolete, 5 passed, 5 total
Time:       25.628s
Ran all test suites.

Watch Usage: Press w to show more.
```