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ФАКУЛЬТЕТ _____ИНФОРМАТИКА И СИСТЕМЫ УПРАВЛЕНИЯ_____

КАФЕДРА _____СИСТЕМЫ ОБРАБОТКИ ИНФОРМАЦИИ И УПРАВЛЕНИЯ (ИУ5)____

О Т Ч Е Т

по лабораторной работе №8

по дисциплине: Разработка Интернет-приложений_____

на тему:___Работа с React. Создание React-приложения_____
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Задание лабораторной работы

В этой лабораторной работе вы создадите React-приложение. Вам нужно будет создать одну страницу со списком репозиториев на гитхабе.

Листинги исходных модулей

- App.js:

```
import React from 'react';
import './App.css';
import axios from 'axios';


class App extends React.Component {
    constructor(props) {
        super(props);
        this.state = {
            repos: [],
        }
    }

    componentDidMount() {
        axios.get('https://api.github.com/users/isst2000/repos')
            .then(response => {
                this.setState({repos: response.data});
        })
            .catch(error => {
                console.log(error);
            });
    }

    render() {
    let repos = this.state.repos.map(repo => (
        <li key={repo.id}>{repo.name}</li>
    ));
    return (
        <div>
            <h1>Public repositories for isst2000:</h1>
            <ul>
                {repos}
            </ul>
        </div>
    );
  }
}

export default App;
```

- App.test.js:

```
import React from 'react';
import { render } from '@testing-library/react';
import App from './App';

test('renders learn react link', () => {
  const { getByText } = render(<App />);
  const linkElement = getByText(/learn react/i);
  expect(linkElement).toBeInTheDocument();
});
```

- Index.js:

```
import React from 'react';
import ReactDOM from 'react-dom';
import './index.css';
import App from './App';
import * as serviceWorker from './serviceWorker';

ReactDOM.render(<App />, document.getElementById('root'));
serviceWorker.unregister();
module.hot.accept();
```

- serviceWorker.js:

```
// This optional code is used to register a service worker.
// register() is not called by default.

// This lets the app load faster on subsequent visits in production, and gives
// it offline capabilities. However, it also means that developers (and users)
// will only see deployed updates on subsequent visits to a page, after all the
// existing tabs open on the page have been closed, since previously cached
// resources are updated in the background.

// To learn more about the benefits of this model and instructions on how to
// opt-in, read https://bit.ly/CRA-PWA

const isLocalhost = Boolean(
  window.location.hostname === 'localhost' ||
    // [::1] is the IPv6 localhost address.
    window.location.hostname === '[::1]' ||
    // 127.0.0.0/8 are considered localhost for IPv4.
    window.location.hostname.match(
      /^127(?:\.(?:25[0-5]|2[0-4][0-9]|[01]?[0-9][0-9]?)){3}$/
    )
);

export function register(config) {
  if (process.env.NODE_ENV === 'production' && 'serviceWorker' in navigator) {
    // The URL constructor is available in all browsers that support SW.
    const publicUrl = new URL(process.env.PUBLIC_URL, window.location.href);
    if (publicUrl.origin !== window.location.origin) {
      // Our service worker won't work if PUBLIC_URL is on a different origin
      // from what our page is served on. This might happen if a CDN is used to
      // serve assets; see https://github.com/facebook/create-react-
app/issues/2374
      return;
    }

    window.addEventListener('load', () => {
      const swUrl = `${process.env.PUBLIC_URL}/service-worker.js`;

      if (isLocalhost) {
        // This is running on localhost. Let's check if a service worker still
exists or not.
        checkValidServiceWorker(swUrl, config);

        // Add some additional logging to localhost, pointing developers to the
        // service worker/PWA documentation.
        navigator.serviceWorker.ready.then(() => {
          console.log(
            'This web app is being served cache-first by a service ' +
              'worker. To learn more, visit https://bit.ly/CRA-PWA'
          );
        });
      } else {
        // Is not localhost. Just register service worker
        registerValidSW(swUrl, config);
```

```
      }
    });
  }
}

function registerValidSW(swUrl, config) {
  navigator.serviceWorker
    .register(swUrl)
    .then(registration => {
      registration.onupdatefound = () => {
        const installingWorker = registration.installing;
        if (installingWorker == null) {
          return;
        }
        installingWorker.onstatechange = () => {
          if (installingWorker.state === 'installed') {
            if (navigator.serviceWorker.controller) {
              // At this point, the updated precached content has been fetched,
              // but the previous service worker will still serve the older
              // content until all client tabs are closed.
              console.log(
                'New content is available and will be used when all ' +
                  'tabs for this page are closed. See https://bit.ly/CRA-PWA.'
              );

              // Execute callback
              if (config && config.onUpdate) {
                config.onUpdate(registration);
              }
            } else {
              // At this point, everything has been precached.
              // It's the perfect time to display a
              // "Content is cached for offline use." message.
              console.log('Content is cached for offline use.');

              // Execute callback
              if (config && config.onSuccess) {
                config.onSuccess(registration);
              }
            }
          }
        };
      };
    })
    .catch(error => {
      console.error('Error during service worker registration:', error);
    });
}

function checkValidServiceWorker(swUrl, config) {
  // Check if the service worker can be found. If it can't reload the page.
  fetch(swUrl, {
    headers: { 'Service-Worker': 'script' }
  })
    .then(response => {
      // Ensure service worker exists, and that we really are getting a JS file.
      const contentType = response.headers.get('content-type');
      if (
        response.status === 404 ||
        (contentType != null && contentType.indexOf('javascript') === -1)
      ) {
        // No service worker found. Probably a different app. Reload the page.
        navigator.serviceWorker.ready.then(registration => {
          registration.unregister().then(() => {
            window.location.reload();
          });
        });
      } else {
```

```
        // Service worker found. Proceed as normal.
        registerValidSW(swUrl, config);
      }
    })
    .catch(() => {
      console.log(
        'No internet connection found. App is running in offline mode.'
      );
    });
}

export function unregister() {
  if ('serviceWorker' in navigator) {
    navigator.serviceWorker.ready.then(registration => {
      registration.unregister();
    });
  }
}
```