

[Lesson 10-12]

[Что мы рассмотрим:]

- Context API
- Hooks

[Context API]

Context API - это способ передачи данных через дерево компонентов без необходимости передавать данные вручную на каждом уровне.

[Context API]

Context API состоит из 3 частей:

- Функция `React.createContext`, которая создает context
- `Provider` (возвращается `createContext`), который устанавливает «электрическую шину», проходящую через дерево компонентов
- `Consumer` (также возвращается `createContext`), который впитывается в «электрическую шину» для извлечения данных

[Context API]

./src/context/MailContext.js

```
import React, {createContext} from "react";  
const MailContext = createContext(); // Создаем новый контекст
```

./src/app.js

```
...  
import { MailContext } from "../contexts/MailContext";  
export default class App extends Component {  
  state = {  
    mailList: [  
      {id: 1, from: 'test@test.com', text: 'Some mail message', isRead: true},  
    ]  
  }  
  ...  
}
```

[Context API]

./src/app.js

```
...
render(){
  return (
    <MailContext.Provider value={this.state.mailList}>
      <div className="col-4">
        <Menu />
      </div>
      <div className="col-8">
        <MailList />
      </div>
    </MailContext.Provider>
  )
}
```

[Context API]

./src/contexts/MailContext.js

```
export const AllMails = () => {  
  return ( <MailContext.Consumer>  
    {  
      (maillist) => { /* отрисовывает что-то, что основано на значении контекста */  
        const mails = maillist.map( (mail) => {  
          return (<li>{mail.from}</li>)  
        })  
        return (  
          <ul>  
            {mails}  
          </ul>  
        )  
      }  
    }  
  )  
  </MailContext.Consumer>  
}
```

[Context API]

./src/components/MailList/index.js

```
import React from 'react'
import { AllMails } from '../../contexts/MailContext'

export const MailList = () => {
  return (
    <div>
      <AllMails />
    </div>
  )
}
```


[Context API]

./src/contexts/MailContext.js

```
export const EmailCount = () => {  
  return (<MailContext.Consumer>  
    { (maillist) => {  
      let count = 0;  
      maillist.map( (mail) => {  
        count++;  
        return mail;  
      })  
      return count;  
    })  
  )  
}
```

[Context API]

./src/components/MailList/index.js

```
import React from 'react'
import { EmailCount } from '../../contexts/MailContext'

export const Menu = () => {
  return (
    <div>
      Входящие (<EmailCount />)
    </div>
  )
}
```

[Hooks]

./src/components/HooksCounter/index.js

```
import React, { useState } from 'react'

export const HooksCounter = () => {
  const [count, setCount] = useState(0);
  return (
    <div>
      <p>You clicked {count} times</p>
      <button onClick={() => setCount(count + 1)}>
        Click me
      </button>
    </div>
  );
}
```

[Hooks]

./src/components/HooksCounter/index.js

```
import React, { useState } from 'react'

export const HooksCounter = () => {
  const [count, setCount] = useState(0);
  const [fruit, setFruit] = useState('banana');
  const [todos, setTodos] = useState([ { text: 'Learn Hooks' } ]);
  ...
}
```

[Hooks]

./src/components/HooksUseEffect/index.js

```
import React, { useState, useEffect } from "react";
import ReactDOM from "react-dom";

export const HooksUseEffect = () => {
  let [names, setNames] = useState([]);
  useEffect(() => {
    fetch("https://uinames.com/api/?amount=25&region=nigeria")
      .then(response => response.json())
      .then(data => { setNames(data); });
  }, []);

  return (
    <div> {names.map( (item, i) => (
      <div key={i}> {item.name} {item.surname} </div>
    ) )} </div>
  );
}
```

[Hooks]

./src/contexts/JediContext.js

```
import React, { createContext } from "react";  
const JediContext = createContext(); // Создаем НОВЫЙ КОНТЕКСТ
```

./src/components/HookUseContext/index.js

```
import React, { useContext } from 'react'  
import { JediContext } from '../contexts/JediContext'  
  
export const HookUseContext = () => {  
  const value = useContext(JediContext);  
  return <div>{value}, I am your Father.</div>;  
}
```

[Hooks]

./src/app.js

```
import React from 'react'
import HookUseContext from './components/HookUseContext'
import { JediContext } from './contexts/JediContext'

export default class App extends Component {
  ...
  render(){
    return (
      <JediContext.Provider value={"Luke"}>
        <HookUseContext />
      </JediContext.Provider>
    );
  }
}
```

[Hooks]

./src/components/HookUseRef/index.js

```
import React, { useState, useRef } from "react";

export const HookUseRef = () => {
  let [name, setName] = useState("Nate");
  let nameRef = useRef();
  const submitButton = () => { setName(nameRef.current.value); };

  return (
    <div>
      <p>{name}</p>
      <input ref={nameRef} type="text" />
      <button type="button" onClick={submitButton}>Submit</button>
    </div>
  );
}
```