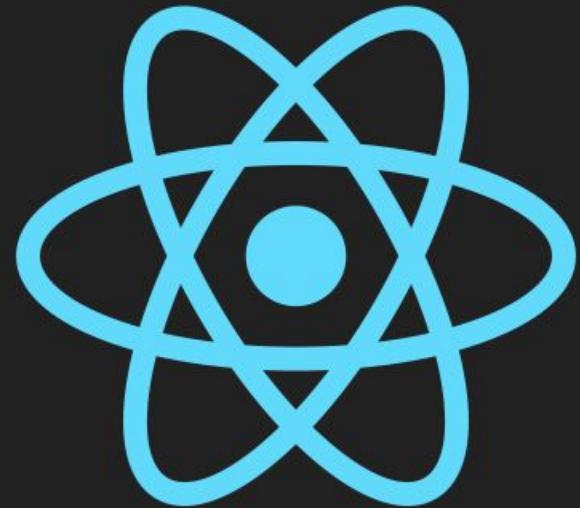


Атвина





Разработка на React.js

Компонент - это функция



```
const GreetWorld = props => (
  <h1>{props.greeting}, World!</h1>
);

const MOUNT_NODE = document.getElementById('app')

ReactDOM.render(
  <GreetWorld greeting="Hello" />, MOUNT_NODE
);
```

Приложение - это function от state



```
function App(state) {  
    // view от state  
}
```

React ❤️ FP

React != Reactivity

Виды компонентов

Functional components

Stateless components

```
const UsersList = ({ users }) => (
  <ul>
    {users.map(user =>
      <li key={user.id}>{user.name}</li>
    )}
  </ul>
);
```

Container components

Stateful components

```
● ● ●

class GithubUsers extends Component {
  state = {
    users: []
  };

  componentDidMount() {
    fetch('api.github.com/users')
      .then(response => response.json())
      .then((users) => {
        this.setState({ users })
      });
  }

  render() {
    <UsersList users={this.state.users} />
  }
}
```

React.Context

Provider & Consumer

```
const ThemeContext = React.createContext('light')

class ThemeProvider extends React.Component {
  state = {theme: 'light'}
  render() {
    return (
      <ThemeContext.Provider value={this.state.theme}>
        {this.props.children}
      </ThemeContext.Provider>
    )
  }
}

const App = () => (
  <ThemeProvider>
    <ThemeContext.Consumer>
      {theme => <Button theme={theme}>Click</Button>}
    </ThemeContext.Consumer>
  </ThemeProvider>
);
```

Higher-Order Components

(HOC)



```
const enhance = compose(  
  withRouter,  
  withUser  
)  
  
export default enhance(UserPage);
```

```
const enhance = compose(
  withState('value', 'updateValue', ''),
  withHandlers({
    onChange: props => event => {
      props.updateValue(event.target.value)
    },
    onSubmit: props => event => {
      event.preventDefault()
      submitForm(props.value)
    }
  })
)

const Form = enhance(({ value, onChange, onSubmit }) =>
<form onSubmit={onSubmit}>
  <label>Value
    <input type="text" value={value} onChange={onChange} />
  </label>
</form>
)
```

~~Side Effect~~ Component

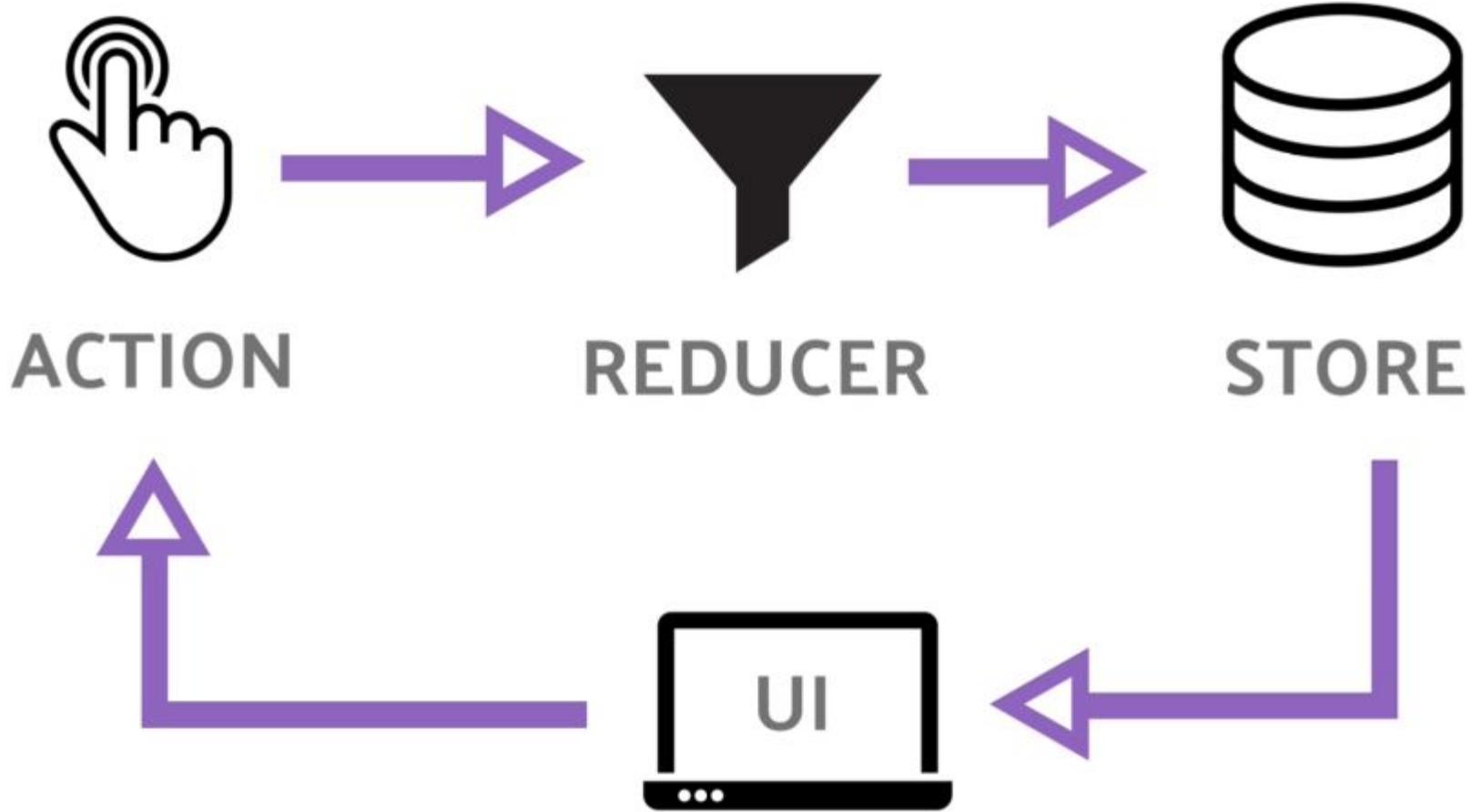


```
const DocumentTitle = (props) => {
  document.title = props.title
  return null;
};
```

Хранение данных и бизнес-логика



Redux





```
const increment = () => ({ type: 'INCREMENT' });
const decrement = () => ({ type: 'DECREMENT' });

const setValue = value => ({
  type: 'SET_VALUE',
  payload: value
});
```



```
function reducer(state = 0, action) {
  switch (action.type) {
    case 'INCREMENT':
      return state + 1
    case 'DECREMENT':
      return state - 1
    default:
      return state
  }
}
```



```
export const rootReducer = combineReducers({
    auth: auth.reducer,
    entities: combineReducers({
        users: users.reducers.entities,
        comments: comments.reducers.entities
    }),
    ui: combineReducers({
        users: users.reducers.ui,
        comments: comments.reducers.ui
    }),
    alerts
});
```

Отладка

инструменты разработчика

Things to do

Add new item



- Inspect all the things
- Profit!!
- Profit!!

All

Completed

Remaining

The screenshot shows a browser's developer tools with the React tab selected. At the top, there's a navigation bar with tabs like Elements, Network, Sources, Timeline, Profiles, Resources, Audits, Console, and NReact. Below the navigation bar, the main area displays the React component tree. A tooltip for the <TodoItem> component is shown on the right, listing props: 'read-only' (item: {...}), 'onToggle: fn()', and 'onToggleComplete: fn()'. The component tree includes elements like <Wrap>, <OldStyle>, <Todos>, <TodoItems>, <TodoItem>, <Filter>, and <NewTodo>. The code is syntax-highlighted in purple, blue, and orange.

```
<Wrap more="a",2,"c",... str="thing" awesome=1>
  <div>
    <div style={position: "absolute", top: 20, left: 20, ...}>this is an iframe</div>
    <Todos>
      <div style={fontSize: 20, fontFamily: "sans-serif", padding: 30, ...}>
        <h1 style={margin: 0, fontSize: 25, marginBottom: 10}>Things to do</h1>
        <NewTodo onAdd={fn()}></NewTodo>
      <TodoItems todos={[{}, {}, {}]} filter="All" onToggleComplete={fn()}>
        <ul style={listStyle: "none", textAlign: "left", margin: 0, ...}>
          <TodoItem item={{title: "Inspect all the things", completed: true, id: 10} onToggle={fn()} onToggleComplete={fn()}></TodoItem>
          <TodoItem item={{title: "Profit!!", completed: false, id: 11} onToggle={fn()}></TodoItem>
          <TodoItem item={{title: "Profit!!", completed: false, id: 12} onToggle={fn()}></TodoItem>
        </ul>
      </TodoItems>
      <Filter onSort={fn()} onFilter={fn()} filter="All"></Filter>
    </div>
  </Todos>
  <OldStyle awesome=2>...</OldStyle>
</Wrap>
```

Reset

Revert

Sweep

Commit

@@INIT

▼ state: {} 1 key

► todos: [] 1 item

▼ What needs to be done?

Use Redux

1 item left

All

Active

Com

Альтернативы Redux

GraphQL & Relay

<https://developer.github.com/v4/explorer/>

Рендеры

Рендеры

- react-dom
- react-native
- react-pdf
- redux
- react-canvas
- react-konsul
- react-vr
- react-tv
- ...

Спасибо!