

How to Build a React App in Kotlin

Dave Ford



Questions for audience

- Kotlin?
- React?
- create-react-app?
- Kotlin JS?
- Kotlin builders?
- kotlinx-html?

Why Kotlin-React?

Prob #1: 80% of my coding is doing this

- Technique #1: String building
- Technique #2: Tree building
- Technique #3: Templates
- Separation of Concerns
- Technique #4: Internal DSLs

Why Templates Are Dead

JSX

- JavaScript language extension
- Adds native support for XML
- And thus HTML

JSX

```
function buttonBar({ x1, x2 }) {  
  return <div>  
    <button>{x1}</button>  
    <button>{x2}</button>  
  </div>  
}
```

Kotlin HTML

```
fun buttonBar(x1: String, x2: String, x3: String){  
    button { +x1 }  
    button { +x2 }  
    button { +x3 }  
}
```

Prob #2: Keeping things in Sync

- Initial render + Update render
- Updating the view when the model changes

MVC the React Way

$$\text{view} = f(\text{model})$$

Updating the UI

- Never update the UI
- Update the model (aka state)

Prob #3: UI Components

- Reuse
- Organization

Very low ceremony!!

React with Kotlin

1. `create-react-kotlin-app`
2. Kotlin react wrappers
3. Kotlin's type-safe builders

Demo

Issues

- node-modules/.cache/kotlin-webpack
- attrs.style warnings
- src slash issue

Summary

`npm install -g create-react-kotlin-app`

`create-react-kotlin-app my-app`

Function Components

Class Components



Developer Training & Consulting

www.smart-soft.com

Dave Ford

dford@smart-soft.com

<https://medium.com/@daveford>

<https://twitter.com/@daveford>