

Lecture 5: User Input, Debugging

Jordan Hayashi

Previous Lecture

- `ScrollView`
- `FlatList`
- `SectionList`
- Controlled vs Uncontrolled components
- `TextInput`

User Input

- Controlled vs uncontrolled components
 - Where is the source of truth for the value of an input?
- React recommends always using controlled components
- Pass `value` and `onChangeText` props

<https://facebook.github.io/react-native/docs/textinput.html>

Handling multiple inputs

- `<form>` exists in HTML, but not in React Native
- With controlled components, we maintain an object with all inputs' values
- We can define a function that handles the data to submit

Validating Input

- Conditionally set state based on input value
- Validate form before submitting
- Validate form after changing single input value
 - `this.setState()` can take a callback as the second argument
 - `componentDidUpdate()`

KeyboardAvoidingView

- Native component to handle avoiding the virtual keyboard
- Good for simple/short forms
 - The view moves independent of any of its child `TextInputs`

Debugging

- React errors/warnings
- Chrome Developer Tools (devtools)
- React Native Inspector
- react-devtools

React Errors and Warnings

- Errors show up as full page alerts
 - Trigger with `console.error()`
- Warnings are yellow banners
 - Trigger with `console.warn()`
 - Does not appear in production mode

Chrome Devtools

- Google Chrome has amazing developer tools (debugger)
- We can run the JavaScript inside a Chrome tab
 - Separate threads for native and JavaScript
 - Communicate asynchronously through bridge
 - No reason that the JavaScript needs to be run on device

React Native Inspector

- Analogous to the Chrome element inspector
- Allows you to inspect data associated with elements, such as margin, padding, size, etc.
- Does not allow you to live-edit elements

react-devtools

- “Inspect the React component hierarchy, including component props and state.”
- Install with ``npm install -g react-devtools``
- Run with ``react-devtools``
- Allows us to make live-edits to style, props, etc.

<https://github.com/facebook/react-devtools>

External Libraries

- Libraries are code written outside the context of your project that you can bring into your project
- Since React Native is just JavaScript, you can add any JavaScript library
- Install using `npm install <library>`
 - Use the `--save` flag for `npm@"<5"`
 - Use the `-g` flag to install things globally
- Import into your project
 - `import React from 'react'`