React Native

COMPONENTS

Components

- Components are the building blocks for a React Native application.
- A React Native user interface (UI) is specified by declaring components, possibly nested, and then those components are mapped to the native UI on the targeted platform.
- React Native has a number of core components that are commonly used in applications, either on their own or combined to build new components.

ActivityIndicator Component

- Displays a circular loading indicator.
- Different in design for IOS vs Android



ActivityIndicator **Props**:

animating

Whether to show the indicator (true, the default) or hide it (false).

color

The foreground color of the spinner (default is gray).

size

Size of the indicator (default is 'small'). Passing a number to the size prop is only supported on Android. ios

Button Component

A basic button component that should render nicely on any platform. Supports a minimal level of customization.

If this button doesn't look right for your app, you can build your own button using **TouchableOpacity** etc.

Button **Props**:

onPress

Handler to be called when the user taps the button

title

Text to display inside the button

color

Color of the text (iOS), or background color of the button (Android)

accessibilityLabel

Text to display for blindness accessibility features

disabled

If true, disable all interactions for this component.

TouchableOpacity Component

- A wrapper for making views respond properly to touches. On press down, the opacity of the wrapped view is decreased, dimming it.
- For Making component clickable, we wrap component with **TouchableOpacity.**

TouchableOpacity Component

Props:

onPress

Handler to be called when the user taps the button

activeOpacity

Determines what the opacity of the wrapped view should be when touch is active. Defaults to 0.2.

TouchableHighlight Component

- A wrapper for making views respond properly to touches. On press down, the opacity of the wrapped view is decreased, which allows the underlay color to show through, darkening or tinting the view.
- For Making component clickable, we wrap component with **TouchableOpacity.**

TouchableHighlight Props:

onPress

Handler to be called when the user taps the button

activeOpacity

Determines what the opacity of the wrapped view should be when touch is active.

underlayColor

The color of the underlay that will show through when the touch is active. ios

etc....

ScrollView Component

- lets you specify different scroll directions for child content
- simply renders all its react child components at once. That makes it very easy to understand and use.
- On the other hand, this has a performance downside.
 Imagine you have a very long list of items you want to display

ScrollView Props:

horizontal

When true, the scroll view's children are arranged horizontally in a row instead of vertically in a column. The default value is false.

onScroll

Fires at most once per frame during scrolling.

scrollEnabled

When false, the view cannot be scrolled via touch interaction. The default value is true.

etc....

ScrollView:

Example code:

FlatList Component

- A performant interface for rendering simple, flat lists
- Fully cross-platform.
- Optional horizontal mode.
- Configurable viewability callbacks.
- Header support.
- Footer support.
- Separator support.
- Pull to Refresh.
- Scroll loading (Lazy Loading).
- ScrollToIndex support.

FlatList **Props**:

data:[ReadOnlyArray]

For simplicity, data is just a plain array.

renderItem

Takes an item from data and renders it into the list. Example usage:

numColumns

Multiple columns can only be rendered with horizontal={false} and will zig-zag like a flexWrap layout.

etc.

FlatList:

Minimal Example:

```
<FlatList
    data={[{key: 'a'}, {key: 'b'}]}
    renderItem={({item}) => <Text>{item.key}</Text>}
/>
```

WebView Component

- Renders web content in a native view.
- Can render HTML via URL
- Can load static HTML

WebView Props:

Source:{uri:string} | {html:string}

Loads static html or a uri (with optional headers) in the WebView.

style

The style to apply to the WebView.

injectJavaScript

Function that accepts a string that will be passed to the WebView and executed immediately as JavaScript.

injectedJavaScript

Set this to provide JavaScript that will be injected into the web page when the view loads.

Continue...

WebView **Props:**

onLoad

Function that is invoked when the WebView has finished loading.

etc..

Image Component

 A React component for displaying different types of images, including network images, static resources, temporary local images, and images from local disk, such as the camera roll.

Note: that for network and data images, you will need to manually specify the dimensions of your image!

Image Props:

Source:{uri:string}

The image source (either a remote URL or a local file resource).

style

The style to apply to the Image.

resizeMode: 'cover' | 'contain' | 'stretch' | 'repeat' | 'center'

Determines how to resize the image when the frame doesn't match the raw image dimensions.

Continue...

Image Props:

resizeMode: 'cover'

Scale the image uniformly (maintain the image's aspect ratio) so that both dimensions (width and height) of the image will be equal to or larger than the corresponding dimension of the view (minus padding).

resizeMode: 'contain'

Scale the image uniformly (maintain the image's aspect ratio) so that both dimensions (width and height) of the image will be equal to or less than the corresponding dimension of the view (minus padding).

resizeMode: 'stretch'

Scale width and height independently, This may change the aspect ratio of the src.

Continue...

Image Props:

resizeMode: repeat

repeat: Repeat the image to cover the frame of the view. The image will keep it's size and aspect ratio. (iOS only)

TextInput Component

- A foundational component for inputting text into the app via a keyboard.
- auto-correction
- auto-capitalization
- placeholder text
- different keyboard types, such as a numeric keypad.

TextInput Props:

keyboardType: default | numeric | email-address |phone-pad (Work cross platform)
Determines which keyboard to open, e.g.numeric

style

The style to apply to the TextInput.

placeholder

The string that will be rendered before text input has been entered.

onChangeText

Callback that is called when the text input's text changes. Changed text is passed as an argument to the callback handler. It has access to only value entered in text input

Continued...

TextInput Props:

onChange

Callback that is called when the text input's text changes. It has access to event object.

style

The style to apply to the TextInput.

maxLength

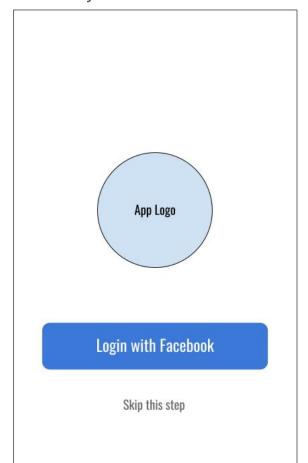
Limits the maximum number of characters that can be entered. Use this instead of implementing the logic in JS to avoid flicker.

etc..

React vs React Native Component reference guide

React	React Native
<div></div>	<view></view>
	<text></text>
, 	<listview></listview>
	<lmage></lmage>

Today's **Exercise**:







Thank You