Prog Disp Móveis

Competências:

- Desenvolver aplicativo para dispositivos móveis.

Indicadores de Competências:

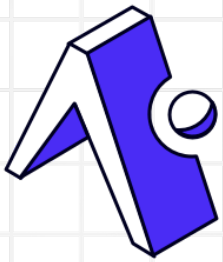
- Desenvolve aplicativos para o contexto de dispositivos móveis;
- Utiliza APIs para manipulação dos componentes do dispositivo móvel;
- Integra aplicativo móvel com serviços web;
- Publica aplicativos móveis em serviço de distribuição digital.

Bases Tecnológicas, científicas e instrumentais (conteúdos):

- Plataforma de desenvolvimento para dispositivos móveis;

Situação de Aprendizagem:

- Aplicações para Dispositivos Móveis



Expo

EXPO

É um conjunto de ferramentas e serviços construídos em torno de plataformas nativas e React Native que ajudam você a desenvolver, construir, implantar e iterar rapidamente em aplicativos iOS, Android e web a partir da mesma base de código JavaScript/TypeScript.

EXPO

Expo

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Make any app. Run it everywhere.

Build one project that runs natively
on all your users' devices

Get Started →

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dailypay. facepunch few flexport. Front goody

EXPO

Terminal

Copy

```
# Create a project named my-app
- npx create-expo-app my-app

# Navigate to the project directory
- cd my-app
```

Terminal

Copy

```
- npx expo start
```

Fonte: https://docs.expo.dev/get-started/create-a-new-app/

EXPO

```
✔ Downloaded and extracted project files.
> npm install
npm WARN deprecated @npmcli/move-file@1.1.2: This functionality has been moved to @npmcli/fs
npm WARN deprecated source-map-url@0.4.1: See https://github.com/lydell/source-map-url#deprecated
npm WARN deprecated urix@0.1.0: Please see https://github.com/lydell/urix#deprecated
npm WARN deprecated resolve-url@0.2.1: https://github.com/lydell/resolve-url#deprecated
npm WARN deprecated source-map-resolve@0.5.3: See https://github.com/lydell/source-map-resolve#deprecated
npm WARN deprecated uuid@3.4.0: Please upgrade  to version 7 or higher.  Older versions may use
Math.random() in certain circumstances, which is known to be problematic.  See https://v8.dev/blog/math-
random for details.
npm WARN deprecated uglify-es@3.3.9: support for ECMAScript is superseded by `uglify-js` as of v3.13.0

added 1239 packages, and audited 1240 packages in 12s

61 packages are looking for funding
  run `npm fund` for details

5 high severity vulnerabilities

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.


✅ Your project is ready!

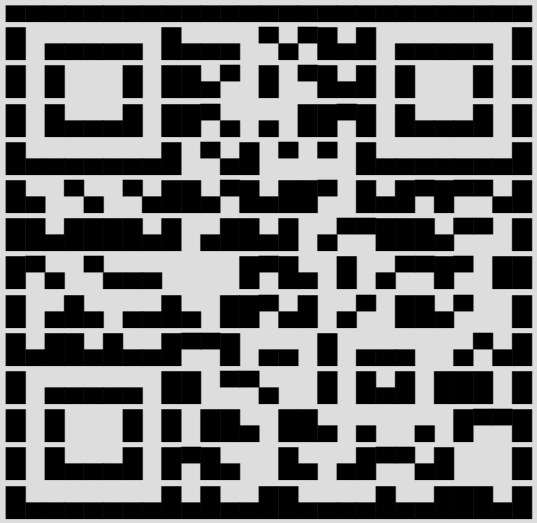
To run your project, navigate to the directory and run one of the following npm commands.

- cd my-app
- npm run android
- npm run ios
- npm run web
```

```
anderson@MacBook-Pro-de-Anderson my-app % npm run android

> my-app@1.0.0 android
> expo start --android

Starting project at /Users/anderson/my-app
Starting Metro Bundler
› Opening exp://192.168.0.22:19000 on Pixel
✔ Expo Go on Pixel is outdated, would you like to upgrade? … yes
Uninstalling Expo Go from android device Pixel.
```



```
› Metro waiting on exp://192.168.0.22:19000
› Scan the QR code above with Expo Go (Android) or the Camera app (iOS)

› Press a │ open Android
› Press i │ open iOS simulator
› Press w │ open web

› Press j │ open debugger
› Press r │ reload app
› Press m │ toggle menu

› Press ? │ show all commands

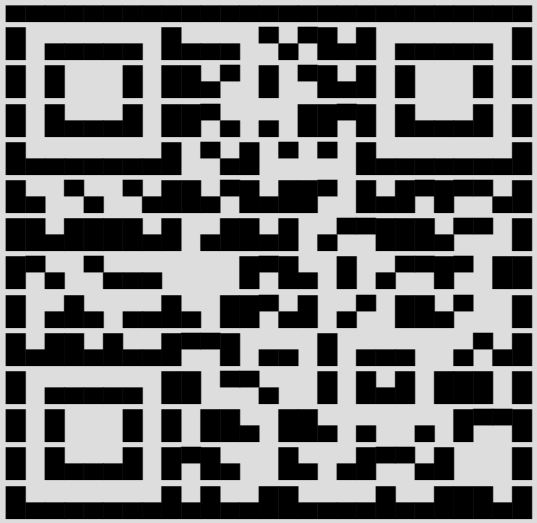
Logs for your project will appear below. Press Ctrl+C to exit.
Android Bundling complete 15261ms
```

```
anderson@MacBook-Pro-de-Anderson my-app % npm run android

> my-app@1.0.0 android
> expo start --android

Starting project at /Users/anderson/my-app
Starting Metro Bundler
› Opening exp://192.168.0.22:19000 on Pixel
✔ Expo Go on Pixel is outdated, would you like to upgrade? … yes
Uninstalling Expo Go from android device Pixel.
```

EXPO



```
› Opening on iOS...
› Opening exp://192.168.0.22:19000 on iPhone 14 Pro Max
Downloading the Expo Go app [============================================================] 100% 0.0s
```

```
› Metro waiting on exp://192.168.0.22:19000
› Scan the QR code above with Expo Go (Android) or the Camera app (iOS)

› Press a │ open Android
› Press i │ open iOS simulator
› Press w │ open web

› Press j │ open debugger
› Press r │ reload app
› Press m │ toggle menu

› Press ? │ show all commands

Logs for your project will appear below. Press Ctrl+C to exit.
Android Bundling complete 15261ms
```

COMPONENTES FUNCIONAIS

Os componentes em React que declarados em formato de função Javascript, são chamados de `Componentes Funcionais`, estes assumem o seguinte formato:

```
import React from 'react';
import {View, Text} from 'react-native';

const App = () => {
  return (
    <View>
      <Text>Hello Samurai</Text>
    </View>
  );
};

export default App;
```

Tendo como notáveis características, ser uma função Javascript que retorna um componente visual para ser exibido na tela.

Fonte: https://devsamurai.com.br/react-native-componentes-funcionais-vs-classes/

USESTATE

A ideia é semelhante a um atributo de classe e seu método Set.

```
const [variavel, setVariavel] = useState(valorInicial)
```

Onde:

variável = nome da variável.

setVariavel = função para alterar o valor da variável.

valorInicial = valor inicial da variável.

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

Importação das Bibliotecas

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Componente Counter

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

setCounter

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

O que é o componente Counter

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Componente Text e a variável conter

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Componente Button e o método onPress

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Interface da minha aplicação

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

Aqui estou "exportando"o kernel da minha aplicação

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

USESTATE

```
import React, { useState } from "react";
import { View, Text, Button } from "react-native";

const Counter = () => {
  const [counter, setCounter] = useState(0);

  return (
    <View>
      <Text>{counter}</Text>
      <Button title="clique aqui" onPress={() => setCounter(counter + 1)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Counter />
    </View>
  );
};

export default App;
```

```
<Button title="clique aqui" onPress={() => setCounter(1)} />
```

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

HOOKS PERSONALIZADOS

```
const useCounter = () => {
  const [value, setValue] = useState(0);

  return [value, setValue];
};
```

Fonte: https://devsamurai.com.br/react-native-basics-props-states/

```
import React, { useState } from "react";
import { View, Text, Button, TextInput, StyleSheet } from "react-native";

const useFatorial = () => {
  const [value, setValue] = useState(0);

  const setFatorial = (newValue) => {
    fatorial=1;
    n=parseInt(newValue);
    if(n<2) setFatorial(fatorial);
    for(i=2; i<=n; i++)
      fatorial = fatorial*i;
    setValue(fatorial);
  };

  return [value, setFatorial];
};


const Fatorial = () => {
  const [fatorial, setFatorial] = useFatorial(0);
  const [n, setN] = useState(0);
  return (
    <View>
       <TextInput
       style={styles.title}
        placeholder="Informe n"
        onChangeText={n => setN(n)}
        keyboardType="numeric"
      />
      <Text>{fatorial}</Text>
      <Button title="clique aqui" onPress={() => setFatorial(n)} />
    </View>
  );
};

const App = () => {
  return (
    <View>
      <Fatorial />
    </View>
  );
};

const styles = StyleSheet.create({
  container: {
    flex: 1,
    padding: 24,
    backgroundColor: '#eaeaea',
  },
  title: {
    marginTop: 16,
    paddingVertical: 80,
  },
});

export default App;
```

```
import React, { useState } from "react";
import { View, Text, Button, TextInput, StyleSheet } from "react-native";
```

HOOKS PERSONALIZADOS

```
import React, { useState } from "react";
import { View, Text, Button, TextInput, StyleSheet } from "react-native";

const useFatorial = () => {
  const [value, setValue] = useState(0);

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    fatorial=1;
    n=parseInt(newValue);
    if(n<2) setFatorial(fatorial);
    for(i=2; i<=n; i++)
      fatorial = fatorial*i;
    setValue(fatorial);
  };

  return [value, setFatorial];
};
```

```
import React, { useState } from "react";
import { View, Text, Button, TextInput, StyleSheet } from "react-native";

const useFatorial = () => {
  const [value, setValue] = useState(0);

  const setFatorial = (newValue) => {
    fatorial=1;
    n=parseInt(newValue);
    if(n<2) setFatorial(fatorial);
    for(i=2; i<=n; i++)
      fatorial = fatorial*i;
    setValue(fatorial);
  };

  return [value, setFatorial];
};


const Fatorial = () => {
  const [fatorial, setFatorial] = useFatorial(0);
  const [n, setN] = useState(0);
  return (
    <View>
       <TextInput
       style={styles.title}
        placeholder="Informe n"
        onChangeText={n => setN(n)}
        keyboardType="numeric"
      />
      <Text>{fatorial}</Text>
      <Button title="clique aqui" onPress={() => setFatorial(n)} />
    </View>
  );
};
```

```
const Fatorial = () => {
  const [fatorial, setFatorial] = useFatorial(0);
  const [n, setN] = useState(0);
  return (
    <View>
       <TextInput
       style={styles.title}
        placeholder="Informe n"
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        keyboardType="numeric"
      />
      <Text>{fatorial}</Text>
      <Button title="clique aqui" onPress={() => setFatorial(n)} />
    </View>
  );
};

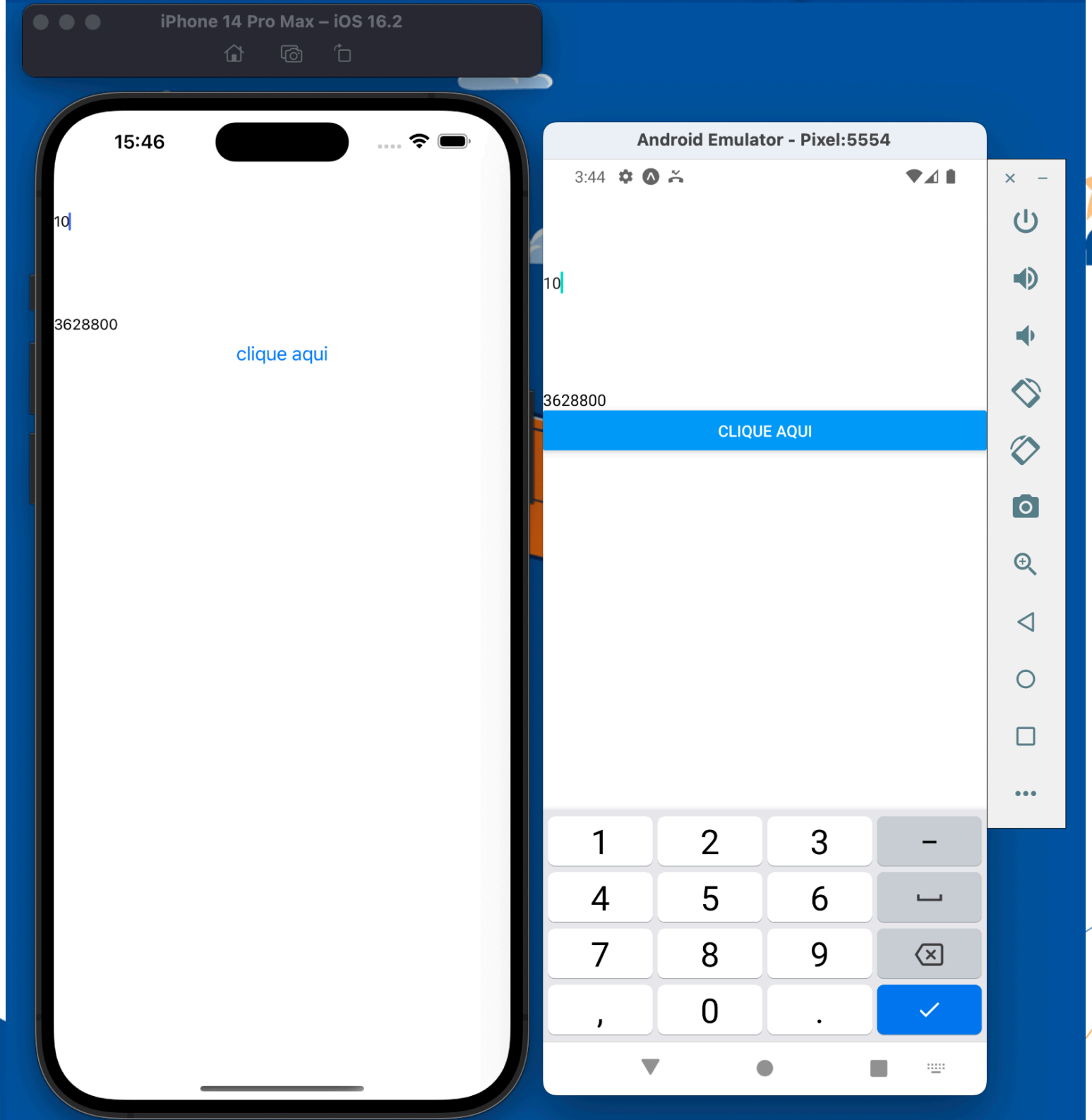
const App = () => {
  return (
    <View>
      <Fatorial />
    </View>
  );
};
```

```
const App = () => {
  return (
    <View>
      <Fatorial />
    </View>
  );
};

const styles = StyleSheet.create({
  container: {
    flex: 1,
    padding: 24,
    backgroundColor: '#eaeaea',
  },
  title: {
    marginTop: 16,
    paddingVertical: 80,
  },
});

export default App;
```

https://github.com/anderson0563/FatorialReactNative


iPhone 14 Pro Max – iOS 16.2
15:46
10
3628800
clique aqui
Android Emulator - Pixel:5554
3:44
10
3628800
CLIQUE AQUI
1
2
3
4
5
6
7
8
9
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0
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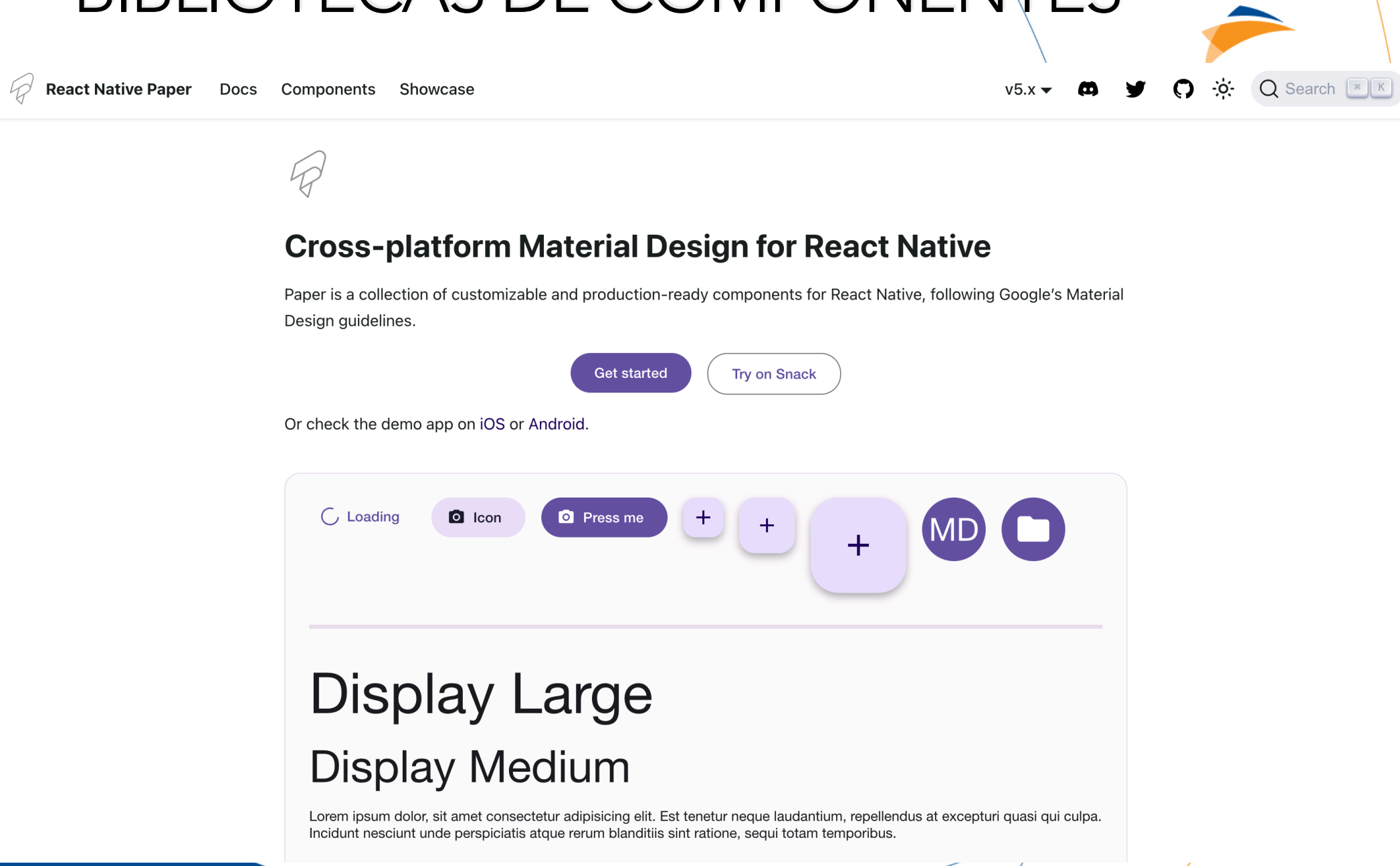
BIBLIOTECAS DE COMPONENTES

- React Native Paper
- React Native Elements
- NativeBase
- React Native UI Kitten
- RNUI: React Native UI Library
- Teaset
- Shoutem UI
- Lottie for React Native
- React Native Maps
- React Native Gifted Chat

Fonte: https://blog.logrocket.com/react-native-component-libraries/

BIBLIOTECAS DE COMPONENTES



PAPER

`Instalação: npm install react-native-paper`

Fonte: https://callstack.github.io/react-native-paper/4.0/getting-started.html

```
anderson@MacBook-Pro-de-Anderson my-app % npm install react-native-paper

added 16 packages, and audited 1256 packages in 2s

61 packages are looking for funding
  run `npm fund` for details

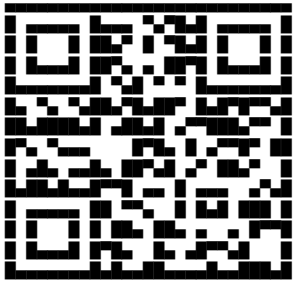
5 high severity vulnerabilities

To address all issues (including breaking changes), run:
  npm audit fix --force

Run `npm audit` for details.
anderson@MacBook-Pro-de-Anderson my-app % npm run android

> my-app@1.0.0 android
> expo start --android

Starting project at /Users/anderson/my-app
Starting Metro Bundler
› Opening exp://192.168.0.22:19000 on Pixel
✔ Expo Go on Pixel is outdated, would you like to upgrade? … yes
Uninstalling Expo Go from android device Pixel.
```



```
› Metro waiting on exp://192.168.0.22:19000
› Scan the QR code above with Expo Go (Android) or the Camera app (iOS)

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› Press j │ open debugger
› Press r │ reload app
› Press m │ toggle menu

› Press ? │ show all commands

Logs for your project will appear below. Press Ctrl+C to exit.
```

```
anderson@MacBook-Pro-de-Anderson my-app % npm install react-native-paper

added 16 packages, and audited 1256 packages in 2s

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To address all issues (including breaking changes), run:
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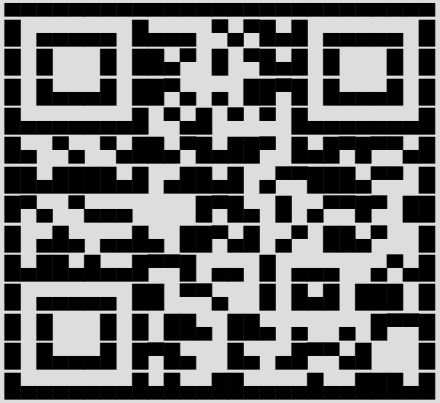

```
› Metro waiting on exp://192.168.0.22:19000
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› Press a │ open Android
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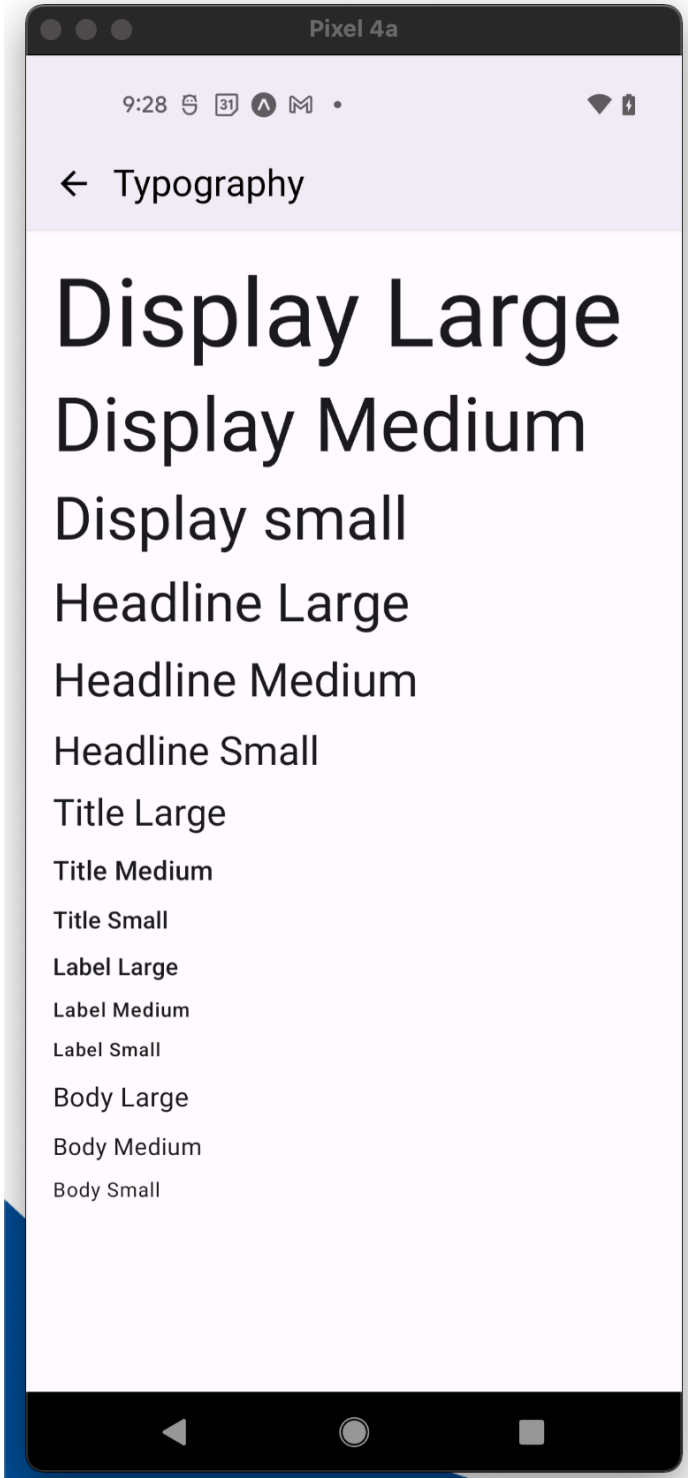
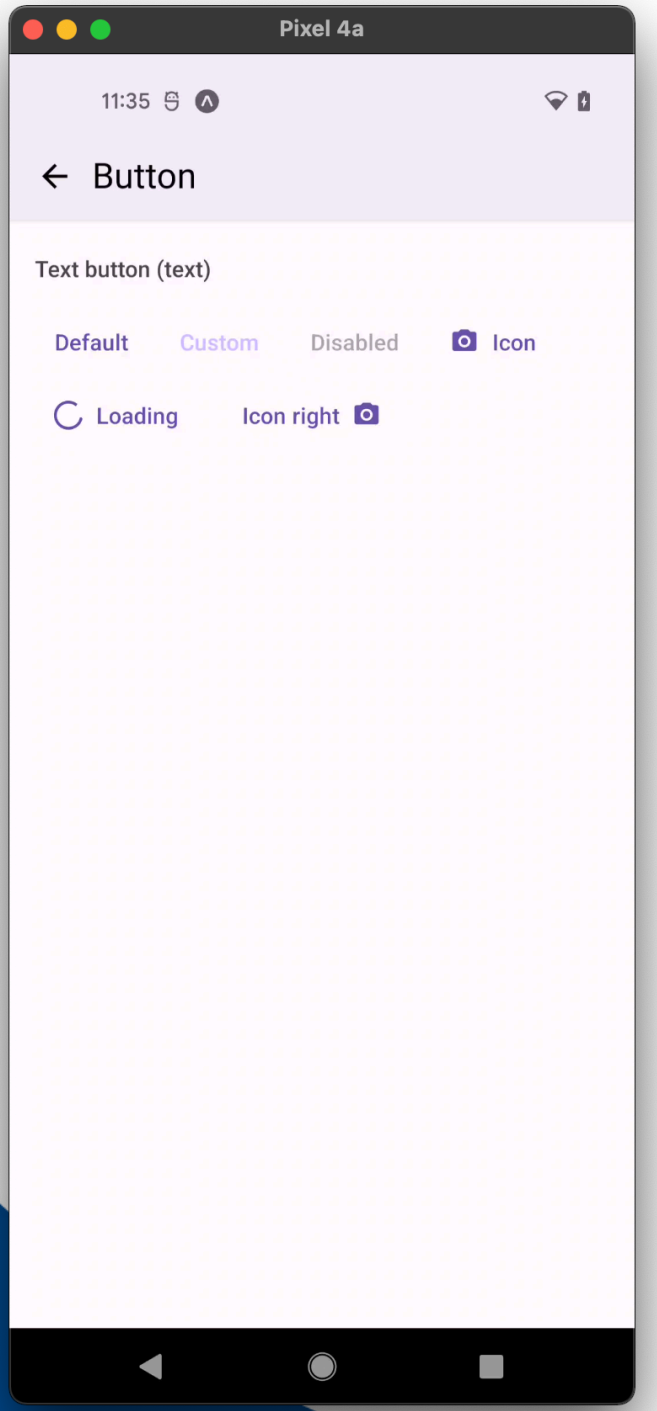
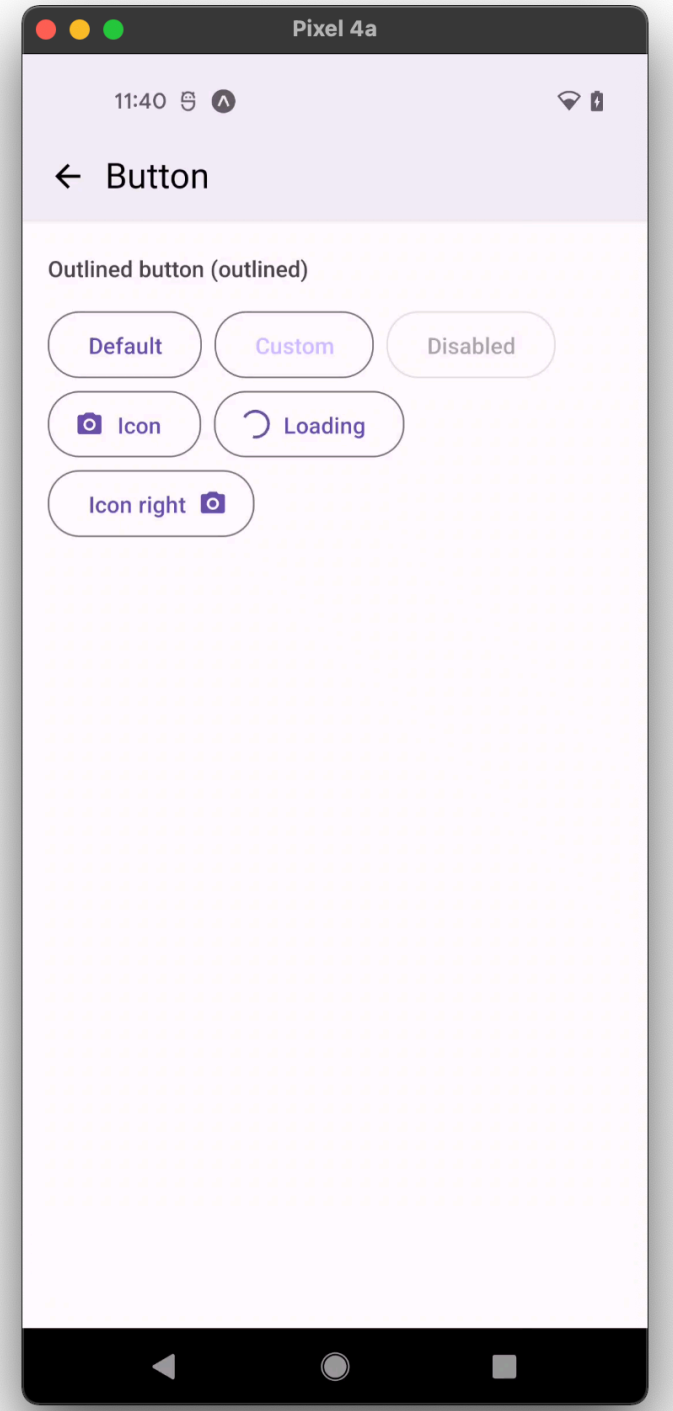
› Press ? │ show all commands

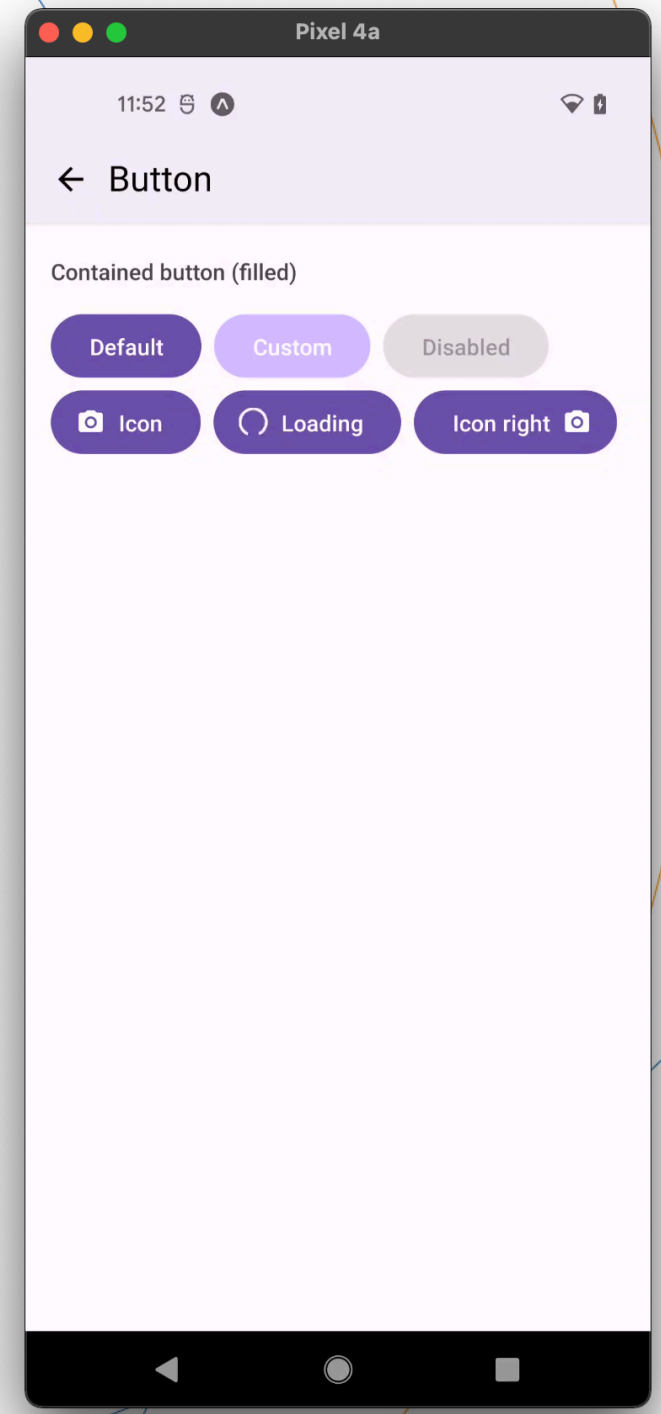
Logs for your project will appear below. Press Ctrl+C to exit.
```

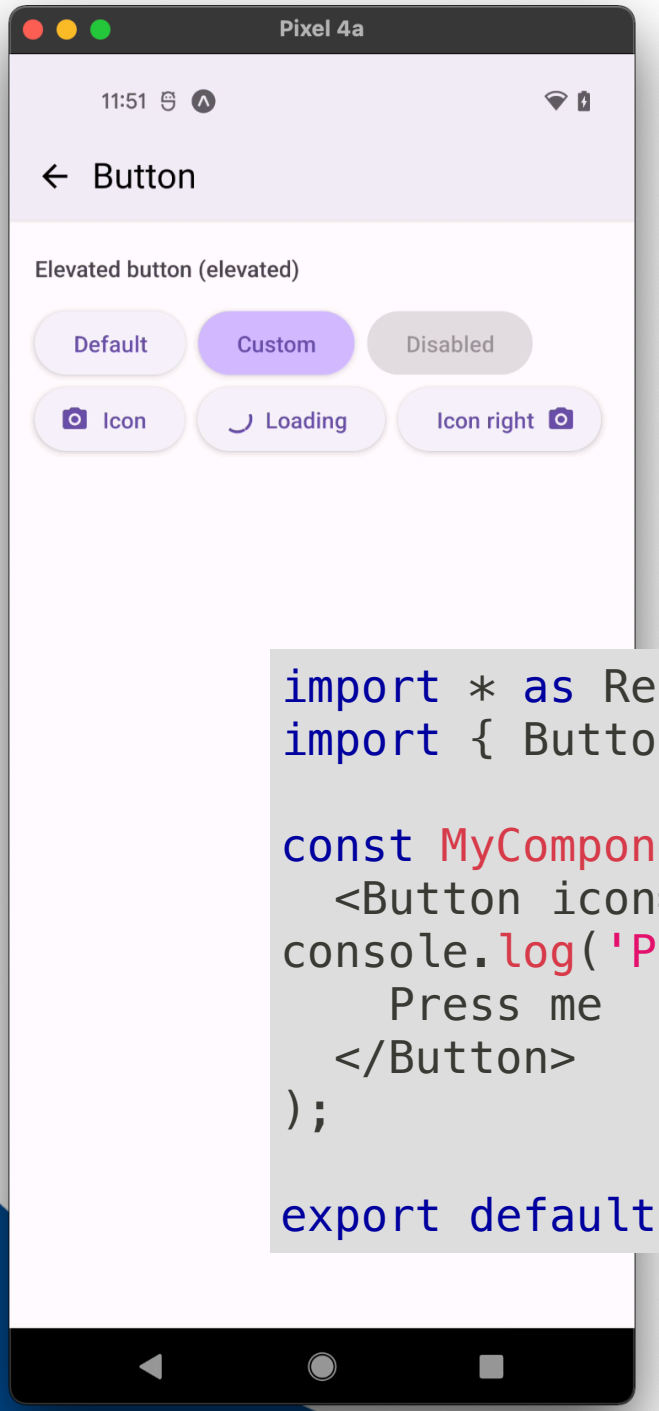


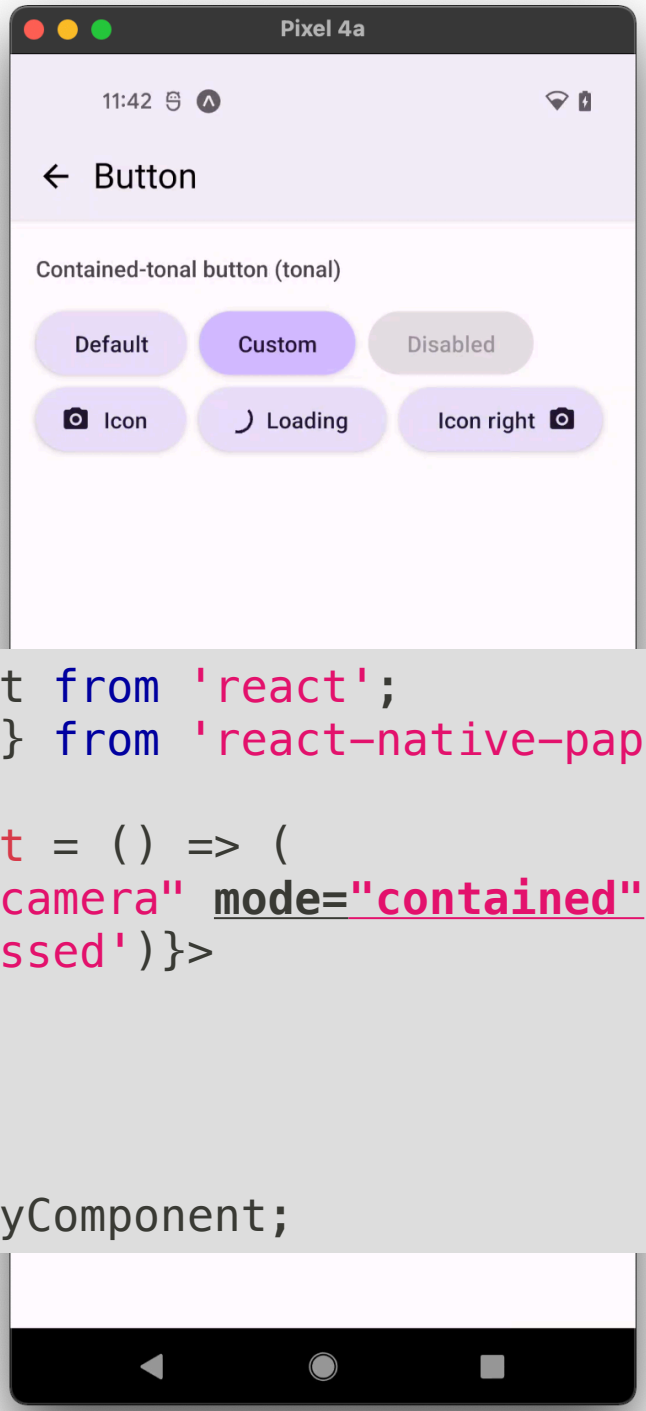

```jsx
import * as React from 'react';
import { Text } from 'react-native-paper';

const MyComponent = () => (
  <>
    <Text variant="displayLarge">Display Large</Text>
    <Text variant="displayMedium">Display Medium</Text>
    <Text variant="displaySmall">Display small</Text>

    <Text variant="headlineLarge">Headline Large</Text>
    <Text variant="headlineMedium">Headline Medium</Text>
    <Text variant="headlineSmall">Headline Small</Text>

    <Text variant="titleLarge">Title Large</Text>
    <Text variant="titleMedium">Title Medium</Text>
    <Text variant="titleSmall">Title Small</Text>

    <Text variant="bodyLarge">Body Large</Text>
    <Text variant="bodyMedium">Body Medium</Text>
    <Text variant="bodySmall">Body Small</Text>

    <Text variant="labelLarge">Label Large</Text>
    <Text variant="labelMedium">Label Medium</Text>
    <Text variant="labelSmall">Label Small</Text>
  </>
);

export default MyComponent;
```


Pixel 4a
11:35
Button
Text button (text)
Default
Custom
Disabled
Icon
Loading
Icon right


Pixel 4a
11:40
Button
Outlined button (outlined)
Default
Custom
Disabled
Icon
Loading
Icon right


Pixel 4a
11:52
Button
Contained button (filled)
Default
Custom
Disabled
Icon
Loading
Icon right






```
import * as React from 'react';
import { Button } from 'react-native-paper';

const MyComponent = () => (
  <Button icon="camera" mode="contained" onPress={() =>
console.log('Pressed')}>
    Press me
  </Button>
);

export default MyComponent;
```

PROJETO INTEGRADOR