

Sound— Wireless Buzzer App



What we did:

- Decomposed the wireless quiz buzzer project into smaller tasks.
- Wrote code to play a sound when a button is clicked in the React Native environment.
- Designed a rounded buzzer button which when clicked plays the buzzer sound.

We revised the following:

- The props of a component.
- Designed a prop for a custom component.
- Performed an action (through a function) when a button is pressed. We displayed an alert box when a button was pressed.
- Worked on a problem statement about a quiz buzzer app and we designed the wireframe for the app.

How we did it:

We decomposed our tasks to make building the app easier:

Task1: Create a button which when pressed plays the sound of a buzzer.

Task2: Create a home screen which allows the user to pick their team.

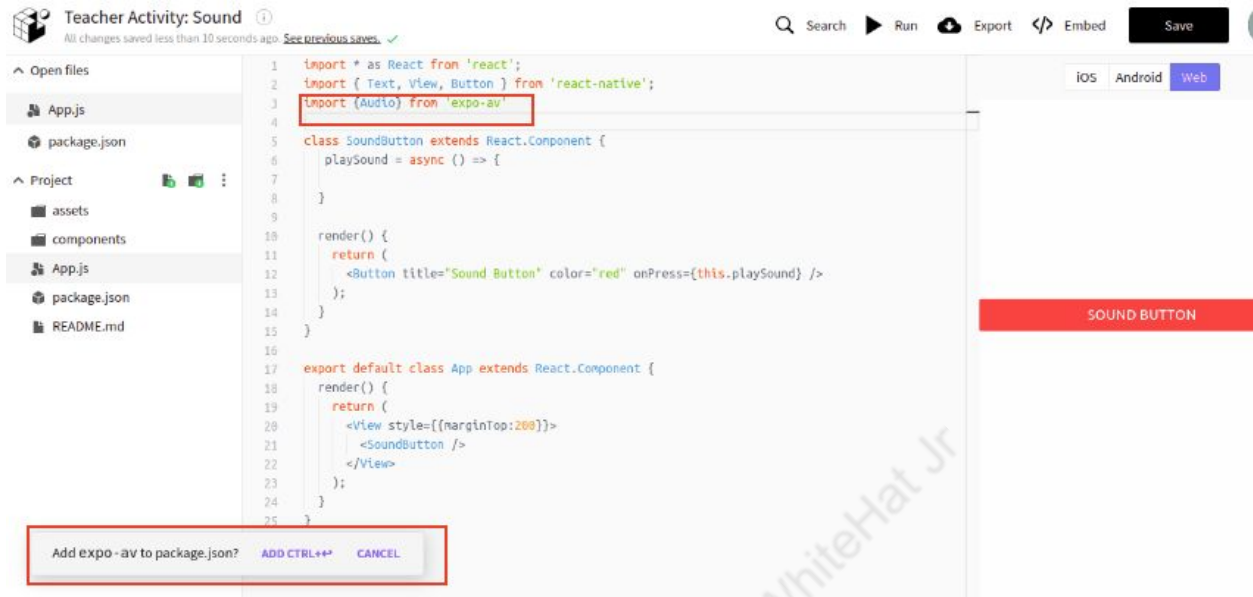
Task 3: Navigate the user from the home screen to the buzzer screen.

Task 4: Listen to which team is pressing the button first and store it in a database.

Task 5: Display the teams in an order in which they pressed the buttons.

We want the button to play some sound, so we have created an empty playSound function. We created an arrow function, so that "this" inside the function refers to the SoundButton component.

To play sound in React Native environment, we will use the Audio Class library defined in expo-av library.



We used 'Audio.Sound.createAsync()' to play the sound. We attached 'await' before our instruction. To let the computer know that playSound is an asynchronous function, we added 'async' while defining it.



```

1  import * as React from 'react';
2  import { Text, View, Button } from 'react-native';
3  import { Audio } from 'expo-av'
4
5
6  class SoundButton extends React.Component {
7    playSound = async () => {
8      await Audio.Sound.createAsync(
9        { uri: 'http://soundbible.com/mp3/Buzzer-SoundBible.com-188420102.mp3' },
10       { shouldPlay: true }
11     );
12   }
13
14   render() {
15     return (
16       <Button title="Sound Button" color="red" onPress={this.playSound} />
17     );
18   }
19 }
20
21 export default class App extends React.Component {
22   render() {
23     return (
24       <View style={{marginTop:200}}>
25         <SoundButton />
26       </View>
27     );
28   }
29 }

```

We used another component for the app, which we call 'TouchableOpacity'. Unlike Button, TouchableOpacity can enclose anything inside them - Text, View, etc. We added color to the 'TouchableOpacity', as well as more styles to make this a rounded button.



```

1  import * as React from 'react';
2  import { Text, View, Button, TouchableOpacity } from 'react-native';
3
4
5  class SoundButton extends React.Component {
6    playSound = async () => {
7    }
8
9    render() {
10     return (
11       <TouchableOpacity style={{
12         marginLeft: 100,
13         borderWidth: 1,
14         borderColor: 'rgba(0,0,0,0.2)',
15         alignItems: 'center',
16         justifyContent: 'center',
17         width: 200,
18         height: 200,
19         backgroundColor: 'red',
20         borderRadius: 100,
21       }}>
22         <Text style={{
23           fontWeight: 'bold',
24           fontSize: 20
25         }}>
26           >Press Me</Text>
27       </TouchableOpacity>
28     );
29   }
30 }

```

We added the sound to your 'TouchableOpacity' using its 'onPress' property.

```
1 import * as React from 'react';
2 import { Text, View, Button, TouchableOpacity } from 'react-native';
3 import { Audio } from 'expo-av';
4
5 class SoundButton extends React.Component {
6   playSound = async () => {
7     await Audio.Sound.createAsync(
8       { uri: 'http://soundbible.com/mp3/Buzzer-SoundBible.com-188422102.mp3' },
9       { shouldPlay: true }
10    );
11  }
12
13  render() {
14    return (
15      <TouchableOpacity
16        style={{
17          marginLeft: 180,
18          borderWidth: 1,
19          borderColor: 'rgba(0,0,0,0.2)',
20          alignItems: 'center',
21          justifyContent: 'center',
22          width: 200,
23          height: 200,
24          backgroundColor: 'red',
25          borderRadius: 100,
26        }}
27        onPress={this.playSound}>
28        <Text
29          style={{
```

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What's next?:

In the next class, we will continue to work on the rest of the assigned tasks towards completing the Wireless Buzzer App.