Layout
React Native

Screen Dimensions

- Dots per Inch (DPI) to measure UI size.
- Dimension API to get width and height
  - const {height, width} = Dimensions.get('window'); //screen

Calculated = actual x device res/160

Width=200
Actual= 320/160* width

Flexbox[1,2]

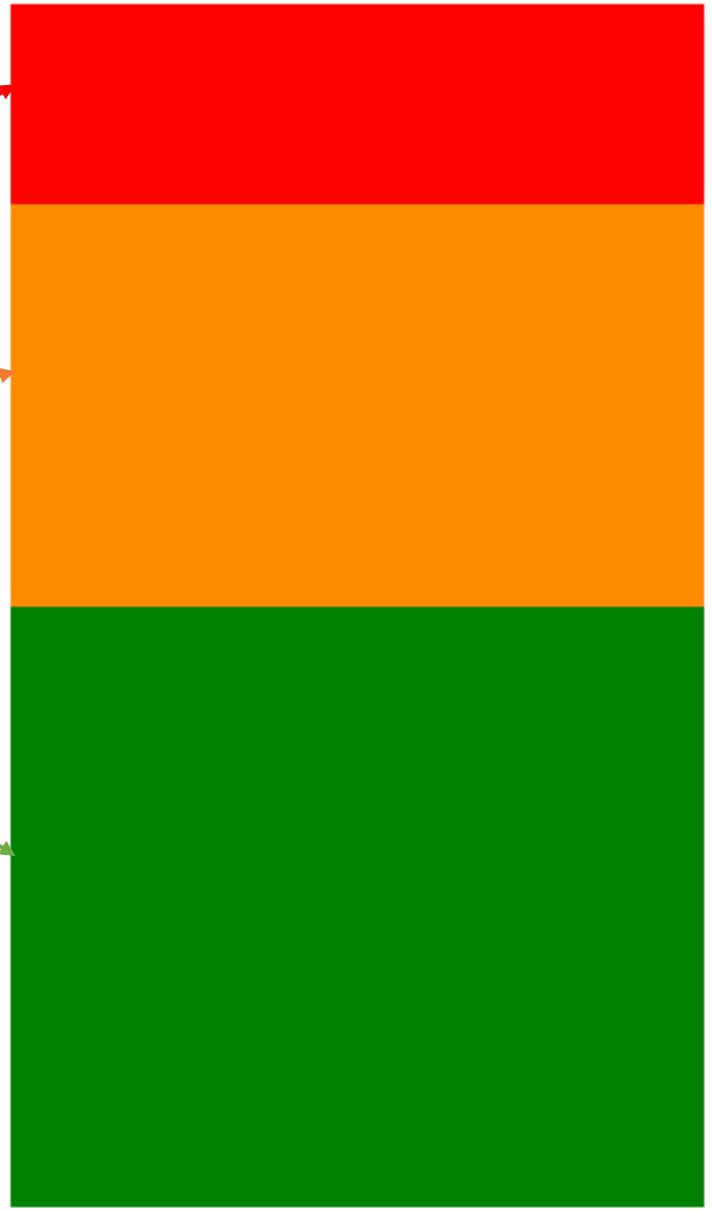
- provide a consistent layout on different screen sizes.
- **Flex**
  - how your items are going to **“fill”** over the available space along your main axis.
- Example

```jsx
import React from "react";
import { StyleSheet, Text, View } from "react-native";

const Flex = () => {
  return (
    <View style={[styles.container, {
      // Try setting `flexDirection` to `"row"`.
      flexDirection: "column"
    }]}>
      <View style={{ flex: 1, backgroundColor: "red" }} />
      <View style={{ flex: 2, backgroundColor: "darkorange" }} />
      <View style={{ flex: 3, backgroundColor: "green" }} />
    </View>
  );
};

const styles = StyleSheet.create({
  container: {
    flex: 1,
    padding: 20,
  },
});

export default Flex;
```



Flexbox

- **Flex Direction**
  - controls the direction in which the children of a node are laid out
  - Main axis and cross axis
  - **Values:** column, row, row-reverse, column-reverse
- **Layout Direction**
  - direction in which children and text in a hierarchy should be laid out.
  - **Values:** LTR, RTL
- **Justify Content**
  - align children within the main axis of their container.
  - **Values:** flex-start, flex-end, center, space-between, space-around, space-evenly

Flexbox

- **Align Items**
  - align children along the cross axis of their container.
  - **Values:** stretch, flex-start, flex-end, center, baseline
- **Align Self**
  - align a single item within its parent
  - **Values:** same as align items
- **Flex wrap**
  - controls what happens when children overflow the size of the container along the main axis
  - **Values:** wrap, no-wrap
- **Align Content**
  - distribution of lines along the cross-axis
  - **Values:** flex-start, flex-end, center, space-between, space-around, space-evenly

Flexbox

- **Flex Basis**
  - provides the default size of an item along the main axis
- **Flex Grow**
  - distributes space among its children along the main axis.
- **Flex Shrink**
  - shrink children along the main axis in the case in which the total size of the children overflows the size of the container on the main axis.

Flexbox

- **Absolute & Relative Layout**
  - position defines how it is positioned within its parent.
  - **Values:** relative, absolute

References

[1] https://reactnative.dev/docs/layout-props

[2] https://reactnative.dev/docs/flexbox