

**Lab #11**

**Advance Programming**

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**BSCS 7B**

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**Calculator.js:**

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| 'use strict';  import React, {Component} from 'react';  import {View, Text, TextInput, TouchableHighlight,StyleSheet,Button} from 'react-native';  export default class Calculator extends Component {      constructor(){          super();          this.state={              //result text for the input expression            resultText: "",            //calculationtext to display results            calculationText: ""          };        }          //calculate the result entered in the result Text section          calculateResult(){              const text = this.state.resultText              //calculate result              this.setState({                calculationText: eval(text)              })            }            //validate function if the entered value is not a correct expression            validate(){              const text = this.state.resultText              switch(text.slice(-1)){                case '+':                case '-':                case '\*':                case '/':                return false              }              return true            }            //at every button press, update the resultText section and calculate result if it is '='            buttonPressed(text){              if(text == '='){                return this.validate() &&  this.calculateResult()              }              this.setState({                resultText: this.state.resultText+text              })            }          //check the type of operation and add in result text section            operate(operation){              switch(operation) {                case 'C':                        this.setState({                          resultText: "",                          calculationText: ""                        })                        break                case '+':                case '-':                case '\*':                case '/':                          this.setState({                          resultText: this.state.resultText+operation                        })                }            }    render(){  return (  <View>      <Text   style={styles.intro}>CALCULATOR</Text>    <View style={styles.screen}>      <Text style={styles.screentext}>{this.state.resultText}</Text>      </View>      <Text style={styles.resulttext}>Result:</Text>      <View style={styles.screen}>      <Text style={styles.screentext}>{this.state.calculationText}</Text>      </View>    <View style={styles.row}>  <TouchableHighlight onPress={() => this.buttonPressed(1)} style={styles.button}>      <Text>1</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(2)}>      <Text>2</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(3)}>      <Text>3</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.operate("+")}>      <Text style={styles.operations} >+</Text>  </TouchableHighlight>  </View>  <View style={styles.row}>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(4)}>      <Text>4</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(5)}>      <Text>5</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(6)}>      <Text>6</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.operate("-")}>  <Text style={styles.operations}> - </Text>  </TouchableHighlight>  </View>  <View style={styles.row}>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(7)}>      <Text>7</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(8)}>      <Text>8</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(9)}>      <Text>9</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.operate("\*")}>  <Text style={styles.operations}>\*</Text>  </TouchableHighlight>  </View>  <View style={styles.row}>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed(0)}>      <Text>0</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.buttonPressed("=")}>  <Text style={styles.operations}>=</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.operate("C")}>  <Text style={styles.operations}>C</Text>  </TouchableHighlight>  <TouchableHighlight  style={styles.button} onPress={() => this.operate("/")}>  <Text style={styles.operations}> / </Text>  </TouchableHighlight>  </View>  </View>  );  }  };  const styles = StyleSheet.create({      button:{      flex: 1,          borderWidth:1,        padding: 25,        margin: 10,        borderColor: 'black',        backgroundColor: 'lightgrey',          height:60        },      screen:{          flex: 1,              borderWidth: 1,            padding: 15,            margin: 15,            borderColor: 'black',            backgroundColor: 'lightblue',            },  screentext:{      fontSize:20,  },      intro:{               flex: 1,              alignSelf:'center',                borderWidth: 1,                padding: 25,                fontSize: 25                },              resulttext:{                  fontSize: 25,                  alignSelf:'center',              },      row:{          flex: 1,          flexDirection:"row",      },      operations:{      fontSize: 20      }      }); |

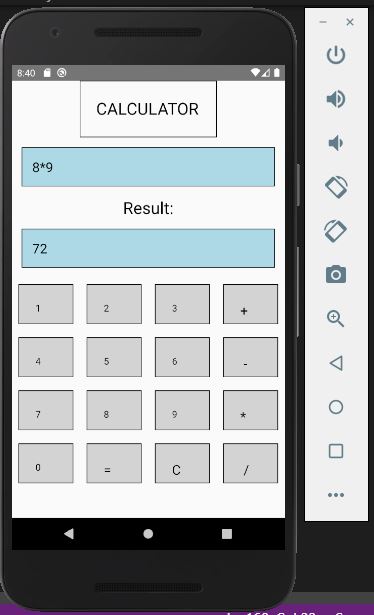
**App.js:**

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| /\*\*   \* Sample React Native App   \* https://github.com/facebook/react-native   \*   \* @format   \* @flow   \*/  import React,{Component} from 'react';  import Calculator from './Calculator';  import {    SafeAreaView,    StyleSheet,    ScrollView,    View,    Text,    StatusBar,  } from 'react-native';  import {    Header,    LearnMoreLinks,    Colors,    DebugInstructions,    ReloadInstructions,  } from 'react-native/Libraries/NewAppScreen';  export default class App extends Component{  render(){      return(             <ScrollView>                  <View>              <Calculator></Calculator>            </View>           </ScrollView>        );            }  }; |

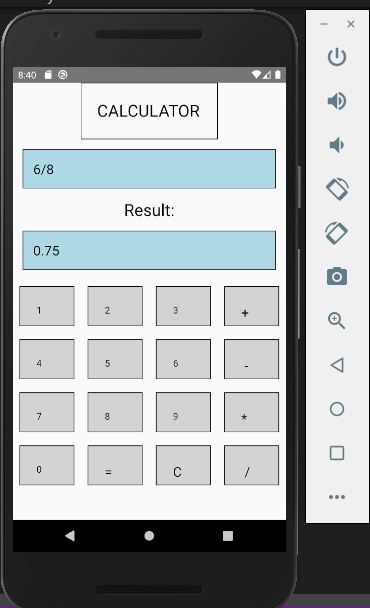
**Index.js:**

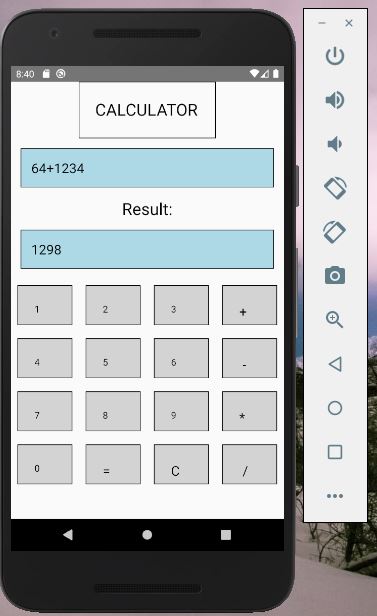
|  |
| --- |
| /\*\*   \* @format   \*/  import {AppRegistry} from 'react-native';  import App from './App';  import {name as appName} from './app.json';  AppRegistry.registerComponent(appName, () => App); |

**Output:**

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