# Department of Computing

**CS-213: Advanced Programming**

**Class: BSCS 7AB**

# Lab 12: React Native Login Application

**Date: 12 December, 2019**

**Time: 10:00-01:00pm & 02:00-05:00pm**

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# Lab 12: React Native Login Application

**Introduction**

React Native combines the best parts of native development with React, a best-in-class JavaScript library for building user interfaces.

**Objectives**

This lab will get students familiar with the React Native application Development.

**Tools/Software Requirement**

React native, Android Studio, JDK, node JS

**Description**

**Reference Videos**

<https://www.youtube.com/watch?v=0q3Jy0ZgzIw&list=PLYxzS__5yYQlHANFLwcsSzt3elIbYTG1h&index=23&t=0s>

<https://www.youtube.com/watch?v=6Z3bscC7p5Y&list=PLYxzS__5yYQlHANFLwcsSzt3elIbYTG1h&index=23>

<https://www.youtube.com/watch?v=StT6FZCBgN4&list=PLYxzS__5yYQlHANFLwcsSzt3elIbYTG1h&index=24>

<https://www.youtube.com/watch?v=2Uq3B3lskPM>

<https://www.youtube.com/watch?v=2Ok2dRg5vlk&list=PLYxzS__5yYQlHANFLwcsSzt3elIbYTG1h&index=26>

<https://www.youtube.com/watch?v=LfP7d09xjpI&list=PLYxzS__5yYQlHANFLwcsSzt3elIbYTG1h&index=27>

**Lab Task**

Create a login Application in react native

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| Solution |
| Task Code:  App.js:  import React, { Component } from 'react';  import {StyleSheet,View,StatusBar} from 'react-native';  import Routes from './src/Routes';  export default class App extends Component {  render() {  return (  <View style={styles.container}>  <StatusBar  backgroundColor="#002f6c"  barStyle="light-content"  />  <Routes/>  </View>  );  }  }  const styles = StyleSheet.create({  container: {  flex: 1,  }  });  src/pages/Login.js:  import React, { Component } from 'react';  import { StyleSheet, Text, View, TextInput, TouchableOpacity, AsyncStorage, Keyboard } from 'react-native';  import {Actions} from 'react-native-router-flux';  import Form from '../components/Form';  export default class Login extends Component {  signup() {  Actions.signup()  }  render() {  return(  <View style={styles.container}>  <Text>{'\n'}</Text>  <Text>{'\n'}</Text>  <Form type="Login"/>  <View style={styles.signupTextCont}>  <Text style={styles.signupText}>Do not have an account yet? </Text>  <TouchableOpacity onPress={this.signup}><Text style={styles.signupButton}>Signup</Text></TouchableOpacity>  </View>  </View>  )  }  }  const styles = StyleSheet.create({  container: {  flex: 1,  justifyContent: 'center',  alignItems: 'center',  backgroundColor: 'white',  },  signupTextCont: {  flexGrow: 1,  justifyContent: 'center',  alignItems: 'flex-end',  paddingVertical: 16,  flexDirection: 'row',  },  signupText: {  color: '#12799f',  fontSize:16,  },  signupButton: {  color: '#12799f',  fontSize:16,  fontWeight: '500',  }  })  src/pages/Signup.js:  import React, { Component } from 'react';  import { StyleSheet, Text, View, TextInput, TouchableOpacity, AsyncStorage, Keyboard } from 'react-native';  import {Actions} from 'react-native-router-flux';  import Form from '../components/Form';  export default class Login extends Component {  signup() {  Actions.signup()  }  render() {  return(  <View style={styles.container}>  <Text>{'\n'}</Text>  <Text>{'\n'}</Text>  <Form type="Login"/>  <View style={styles.signupTextCont}>  <Text style={styles.signupText}>Do not have an account yet? </Text>  <TouchableOpacity onPress={this.signup}><Text style={styles.signupButton}>Signup</Text></TouchableOpacity>  </View>  </View>  )  }  }  const styles = StyleSheet.create({  container: {  flex: 1,  justifyContent: 'center',  alignItems: 'center',  backgroundColor: 'white',  },  signupTextCont: {  flexGrow: 1,  justifyContent: 'center',  alignItems: 'flex-end',  paddingVertical: 16,  flexDirection: 'row',  },  signupText: {  color: '#12799f',  fontSize:16,  },  signupButton: {  color: '#12799f',  fontSize:16,  fontWeight: '500',  }  })  src/components/Form.js:  import React,{ Component } from 'react';  import { StyleSheet,Text,View,TextInput,TouchableOpacity,AsyncStorage,Keyboard } from 'react-native';  import {Actions} from 'react-native-router-flux';  export default class Form extends Component {  constructor(props){  super(props);  this.state={  email:'',  password: ''  }  }  saveData =async()=>{  const {email,password} = this.state;  let loginDetails={  email: email,  password: password  }  if(this.props.type !== 'Login'){  AsyncStorage.setItem('loginDetails', JSON.stringify(loginDetails));  Keyboard.dismiss();  alert("Signed Up!");  this.login();  }  else if(this.props.type == 'Login'){  try{  let loginDetails = await AsyncStorage.getItem('loginDetails');  let ld = JSON.parse(loginDetails);  if (ld.email != null && ld.password != null) {  if (ld.email == email && ld.password == password)  {  alert('Logged in!');  }  else  {  alert('Email or password does not exist. Try again!');  }  }  }catch(error)  {  alert(error);  }  }  }  showData = async()=>{  let loginDetails = await AsyncStorage.getItem('loginDetails');  let ld = JSON.parse(loginDetails);  alert('email: '+ ld.email + ' ' + 'password: ' + ld.password);  }  render() {  return(  <View style={styles.container}>  <TextInput style={styles.inputBox}  onChangeText={(email) => this.setState({email})}  underlineColorAndroid='rgba(0,0,0,0)'  placeholder="Email"  placeholderTextColor = "#002f6c"  selectionColor="#fff"  keyboardType="email-address"  onSubmitEditing={()=> this.password.focus()}/>  <TextInput style={styles.inputBox}  onChangeText={(password) => this.setState({password})}  underlineColorAndroid='rgba(0,0,0,0)'  placeholder="Password"  secureTextEntry={true}  placeholderTextColor = "#002f6c"  ref={(input) => this.password = input}  />  <TouchableOpacity style={styles.button}>  <Text style={styles.buttonText} onPress={this.saveData}> {this.props.type}</Text>  </TouchableOpacity>  </View>  )  }}  const styles = StyleSheet.create({  container: {  justifyContent: 'center',  alignItems: 'center',  },  inputBox: {  width: 300,  backgroundColor: '#eeeeee',  borderRadius: 25,  paddingHorizontal: 16,  fontSize: 16,  color: '#002f6c',  marginVertical: 10  },  button: {  width: 300,  backgroundColor: '#4f83cc',  borderRadius: 25,  marginVertical: 10,  paddingVertical: 12  },  buttonText: {  fontSize: 16,  fontWeight: '500',  color: '#ffffff',  textAlign: 'center'  }  });  src/Routes.js:  import React, { Component } from 'react';  import {Router, Stack, Scene} from 'react-native-router-flux';  import Login from './pages/Login';  import Signup from './pages/Signup';  export default class Routes extends Component {  render() {  return (  <Router barButtonIconStyle ={styles.barButtonIconStyle}  hideNavBar={false}  navigationBarStyle={{backgroundColor: '#1565c0',}}  titleStyle={{color: 'white',}}  >  <Stack key="root">  <Scene key="login" component={Login} title="Login"/>  <Scene key="signup" component={Signup} title="Sign up"/>  </Stack>  </Router>  )  }  }  const styles = {  barButtonIconStyle: {  tintColor: 'white'  }  };  Task Output Screenshot:    Sign Up Page      Alert upon Login |

### Deliverable

Compile a single word document by filling in the solution part and submit this Word file on LMS. This lab grading policy is as follows: The lab is graded between 0 to 10 marks. The submitted solution can get a maximum of 5 marks. At the end of each lab or in the next lab, there will be a viva/quiz related to the tasks. You must show the implementation of the tasks in the designing tool, along with your complete Word document to get your work graded. You must also submit this Word document on the LMS. In case of any problems with submissions on LMS, submit your Lab assignments by emailing it to Ms. Ayesha Asif: [ayesha.asif@seecs.edu.pk](mailto:ayesha.asif@seecs.edu.pk).