



**COMSATS**

**University Abbottabad campus**

**Lab Assignment:**

**Submitted to:**

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**Submitted by:**

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Mobile Application Development

## **LAB ASSIGNMENT**

**Submission date:**

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## Question # 1:

```
import { Text, View, SafeAreaView, StyleSheet, FlatList } from 'react-native';
import { List, Avatar } from 'react-native-paper';
export default function App() {
  let DATA = [
    { id: 1, name: 'Umar Nawaz', grade: '18', department: 'CS', salary: 100000 },
    { id: 2, name: 'John Doe', grade: '19', department: 'EEE', salary: 560000 },
    { id: 3, name: 'Ali Ahmad', grade: '18', department: 'BTY', salary: 870000 },
  ];

  return (
    <SafeAreaView>
      <Text>NAME : UMAR NAWAZ</Text>
      <Text>ROLL NO : FA20-BCS-080 </Text>
      <Text>_____ </Text>
      <Text>Using Map Function</Text>
      <Employees data={DATA} />
      <Text>Using Flat List</Text>
      <EmployeesUsingFlatList data={DATA} />
    </SafeAreaView>
  );
}

function Employees(props) {
  return (
    <View>
      {props.data.map((employee) => {
        return (
          <List.Item
            title={employee.name}
            description={
              'Grade : ' +
              employee.grade +
              '\nDepartment: ' +
              employee.department +
              '\nSalary ' +
              employee.salary
            }
          >
        )
      })}
      left={(props) => (
        <Avatar.Text
          style={props.style}
          label={employee.name[0]}
          size={40}
        />
      )}
    </View>
  );
}
```

```

        })
      />
    );
  })
</View>
);
}

function EmployeesUsingFlatList(props) {
  return (
    <View>
      {props.data.map((employee) => {
        return (
          <List.Item
            title={employee.name}
            description={
              'Grade : ' +
              employee.grade +
              '\nDepartment: ' +
              employee.department +
              '\nSalary ' +
              employee.salary
            }
            left={(props) => (
              <Avatar.Text
                style={props.style}
                label={employee.name[0]}
                size={40}
              />
            )}
          />
        )}
      )}
    </View>
  );
}

const styles = StyleSheet.create({});

```


## OUTPUT:

My Device	iOS	Android	Web
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NAME : UMAR NAWAZ  
ROLL NO : FA20-BCS-080

---


Using Map Function



Umar Nawaz  
Grade : 18  
Department: CS...




John Doe  
Grade : 19  
Department: EEE...




Ali Ahmad  
Grade : 18  
Department: BTY...


Using Flat List



Umar Nawaz  
Grade : 18  
Department: CS...



John Doe  
Grade : 19  
Department: EEE...



Ali Ahmad  
Grade : 18  
Department: BTY...

## QUESTION # 2:

```
import { Text, View, SafeAreaView, StyleSheet, FlatList } from 'react-native';
import { List, Avatar } from 'react-native-paper';
export default function App() {
  let DATA = [
    {
      id: 1,
      name: 'Umar Nawaz',
      grade: '18',
      department: 'CS',
      salary: 100000,
    },
    { id: 2, name: 'John Doe', grade: '19', department: 'EEE', salary: 560000 },
    {
      id: 3,
      name: 'Ali Ahmad',
      grade: '18',
      department: 'BTY',
      salary: 870000,
    },
  ],
  ];

  return (
    <SafeAreaView>
      <Text>NAME : UMAR NAWAZ</Text>
      <Text>ROLL NO : FA20-BCS-080 </Text>
      <Text>_____ </Text>
      <Employees data={DATA} department={'CS'} grade={18} salary={100000} />

      <View>
        <Text>Using FlatList</Text>
      </View>

      <EmployeesUsingFlatList
        data={DATA}
        department={'BTY'}
        grade={18}
        salary={870000}
      />
    </SafeAreaView>
  );
}
```

```

    );
}

function Employees(props) {
  return (
    <>
      <View>
        {props.data.map((employee) => {
          if (
            props.grade == employee.grade &&
            props.department == employee.department &&
            props.salary >= employee.salary
          ) {
            return (
              <List.Item
                title={employee.name}
                description={
                  'Grade : ' +
                    employee.grade +
                  '\nDepartment: ' +
                    employee.department +
                  '\nSalary ' +
                    employee.salary
                }
                left={() => (
                  <Avatar.Text
                    style={props.style}
                    label={employee.name[0]}
                    size={40}
                  />
                )}
              />
            )
          }
        })}
      </View>

      <View>
        <FlatList
          data={props.DATA}
          renderItem={({ item }) => {
            return (
              <List.Item
                title={item.name}
                description={

```



```

        <Avatar.Text
          style={props.style}
          label={employee.name[0]}
          size={40}
        />
      )}
    />
  );
}
}}
</View>

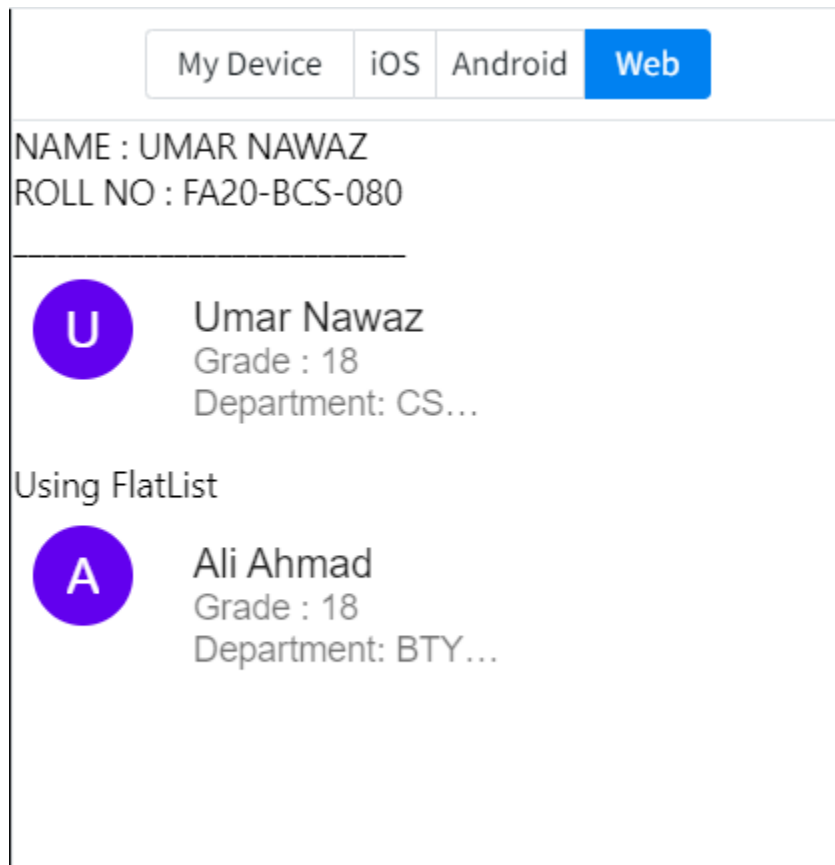
<View>
  <FlatList
    data={props.DATA}
    renderItem={({ item }) => {
      return (
        <List.Item
          title={item.name}
          description={
            'Grade : ' +
            item.grade +
            '\nDepartment: ' +
            item.department +
            '\nSalary ' +
            item.salary
          }
        />
        <Avatar.Text
          style={props.style}
          label={item.name[0]}
          size={40}
        />
      )}
    />
  );
}
</View>
</>
);
}

const styles = StyleSheet.create({});

```



## Output:



## Question # 3:

```
import {
  Button,
  View,
  Text,
  TextInput,
  StyleSheet,
} from 'react-native';
import {
  List,
  Avatar,
} from 'react-native-paper';
import { useState } from 'react';
function App() {
  let DATA = [
    { id: 1, name: 'Umar Nawaz', grade: '18', department: 'CS', salay: 100000 },
```

```

    { id: 2, name: 'John Doe', grade: '19', department: 'EEE', salary: 560000 },
    { id: 3, name: 'Ali Ahmad', grade: '18', department: 'BTY', salary: 870000 },
  ];

  let [data, setData] = useState(DATA);
  let [id, setid] = useState('');
  let [name, setname] = useState('');
  let [salary, setsalary] = useState('');
  let [department, setdepartment] = useState('');
  let [grade, setgrade] = useState('');

  let insertdata = () => {
    setData([
      ...data,
      {
        id: id,
        name: name,
        grade: grade,
        department: department,
        salary: salary,
      },
    ]);
  };

  return (
    <>
      <View style={{}}>
        <Text>NAME : UMAR NAWAZ</Text>
        <Text>ROLL NO : FA20-BCS-080</Text>
        <Text>_____</Text>
        <Text style={styles.label}> ID</Text>
        <View style={{ flexGrow: 1 }}>
          <TextInput
            style={styles.input}
            onChangeText={(data) => {
              setid(data);
            }}
            value={id}
          />
        </View>
      </View>

      <View style={{}}>
        <Text style={styles.label}> NAME</Text>
        <View style={{ flexGrow: 1 }}>

```

```

    <TextInput
      style={styles.input}
      onChangeText={(data) => {
        setname(data);
      }}
      value={name}
    />
  </View>
</View>

<View style={{}}>
  <Text style={styles.label}> GRADE</Text>
  <View style={{ flexGrow: 1 }}>
    <TextInput
      style={styles.input}
      onChangeText={(data) => {
        setgrade(data);
      }}
      value={grade}
    />
  </View>
</View>

<View style={{}}>
  <Text style={styles.label}> SALARY</Text>
  <View style={{ flexGrow: 1 }}>
    <TextInput
      style={styles.input}
      onChangeText={(data) => {
        setsalary(data);
      }}
      value={salary}
    />
  </View>
</View>

<View style={{}}>
  <Text style={styles.label}> DEPARTMENT</Text>
  <View style={{ flexGrow: 1 }}>
    <TextInput
      style={styles.input}
      onChangeText={(data) => {
        setdepartment(data);
      }}
      value={department}
    />
  </View>
</View>

```

```

        />
      </View>
    </View>

    <Button style={{}} title="Add" onPress={insertdata}></Button>

    <Employees data={data} />
  </>
);
}
const styles = StyleSheet.create({
  input: {
    borderWidth: 1,
    borderRadius: 5,
    marginLeft:10,
    marginRight:10,
    padding:5,
    borderColor: '#4044C9',
    fontSize: 18,
  },
  label:{
    fontSize:15
  }
});

function Employees(props) {
  return (
    <View>
      {props.data.map((employee) => {
        return (
          <List.Item
            title={employee.name}
            description={
              'Grade : ' +
              employee.grade +
              '\nDepartment: ' +
              employee.department +
              '\nSalary ' +
              employee.salary
            }
          >
            left={({props}) => (
              <Avatar.Text
                style={props.style}
                label={employee.name[0]}
                size={40}
              >

```

```

        />
    })
  />
);
}}
</View>
);
}
export default App;

```

## Output:

My Device

iOS

Android

Web

NAME : UMAR NAWAZ  
ROLL NO : FA20-BCS-080

---

ID

NAME

GRADE

SALARY

DEPARTMENT

ADD

U

Umar Nawaz  
Grade : 18  
Department: CS...

J

John Doe  
Grade : 19  
Department: EEE...

A

Ali Ahmad  
Grade : 18  
Department: ...

#### Question # 4:

```
import {
  Button,
  View,
  Text,
  StyleSheet,
} from 'react-native';
import {
  List,
  Avatar,
  Searchbar,
} from 'react-native-paper';
import { useState } from 'react';
function App() {
  let DATA = [
    { id: 1, name: 'Umar Nawaz', grade: '18', department: 'CS', salay: 100000 },
    { id: 2, name: 'John Doe', grade: '19', department: 'EEE', salay: 560000 },
    { id: 3, name: 'Ali Ahmad', grade: '18', department: 'BTY', salay: 870000 },
  ];

  let [value, setvalue] = useState('');
  let [searchstring, setsearchstring] = useState('');

  return (
    <>
      <View style={{}}>
        <Text>NAME : UMAR NAWAZ</Text>
        <Text>ROLL NO : FA20-BCS-080 </Text>
        <Text>_____ </Text>
        <Text style={styles.text} variant="headlineLarge">
          Enter To Search
        </Text>
        <Searchbar
          placeholder="Search"
          style={styles.searchbar}
          onChangeText={(data) => {
            setvalue(data);
          }}
          value={value}
        />
      </View>

      <Button
        style={{}}

```

```

        title="Get Record"
        onPress={() => {
            setsearchstring(value);
        }}</Button>

        <Employees data={DATA} option={searchstring} />
    </>
);
}
const styles = StyleSheet.create({
    searchbar: {
        margin: 4,
    },
    text: {
        marginVertical: 4,
    },
});

function Employees(props) {
    return (
        <View>
            {props.data.map((employee) => {
                if (
                    props.option == employee.id ||
                    props.option == employee.name ||
                    props.option == employee.grade ||
                    props.option == employee.department ||
                    props.option == employee.salay
                ) {
                    return (
                        <List.Item>
                            title={employee.name}
                            description={
                                'Grade : ' +
                                employee.grade +
                                '\nDepartment: ' +
                                employee.department +
                                '\nSalary ' +
                                employee.salary
                            }
                        </List.Item>
                    )
                }
                left={() => (
                    <Avatar.Text>
                        style={props.style}
                        label={employee.name[0]}
                        size={40}
                    </Avatar.Text>
                )
            })}
        </View>
    );
}

```

```

    }
    }
  }
}
export default App;

```

## Output:

My Device
iOS
Android
Web

NAME : UMAR NAWAZ  
ROLL NO : FA20-BCS-080

Enter To Search

GET RECORD

U
Umar Nawaz  
Grade : 18  
Department: CS...

A
Ali Ahmad  
Grade : 18  
Department: BTY...



### Question # 5:

```
import { Text, SafeAreaView, StyleSheet } from 'react-native';
import Telecom from './Telecom';
export default function App() {
  return (
    <SafeAreaView>
      <Text>NAME : UMAR NAWAZ</Text>
      <Text>ROLL NO : FA20-BCS-080 </Text>
      <Text>_____ </Text>
      <Telecom />
    </SafeAreaView>
  );
}
```

```
import React from 'react';

import { Text, Button, View, SafeAreaView } from 'react-native';
import { List, Avatar } from 'react-native-paper';
class Telecom extends React.Component {
  constructor() {
    super();
    this.state = {
      employees: [
        {
          EmpName: 'Umar',
          age: '10',
          department: 'CS',
          salary: '1000',
          companyname: 'ZONG',
        },
        {
          EmpName: 'Ali',
          age: '16',
          department: 'EEE',
          salary: '1000',
          companyname: 'TELENOR',
        },
      ],
      cname: 'ZONG',
    };
  }
}
```

```

getcname() {
    return this.state.cname;
}

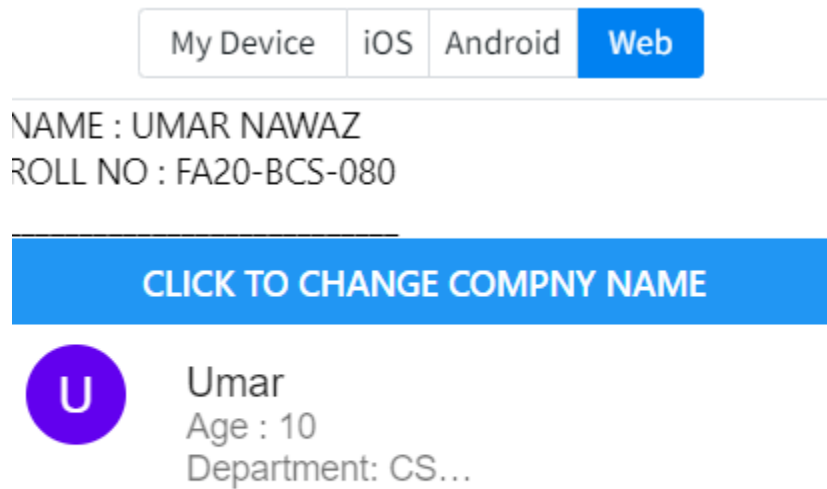
setcname(cname) {
    this.setState({ employees: [...employees], cname: cname });
}

render() {
    return (
        <>
            <Button
                title="CLICK TO CHANGE COMPNY NAME"
                onPress={() => {
                    this.setcname('TELENOR');
                }}
            />
            {this.state.employees.map((employee) => {
                if (employee.companyname == this.getcname()) {
                    return (
                        <List.Item
                            title={employee.EmpName}
                            description={
                                'Age : ' +
                                employee.age +
                                '\nDepartment: ' +
                                employee.department +
                                '\nSalary ' +
                                employee.salary +
                                '\nCompany ' +
                                employee.companyname
                            }
                            left={(props) => (
                                <Avatar.Text
                                    style={props.style}
                                    label={employee.EmpName[0]}
                                    size={40}
                                />
                            )}
                        />
                    )}
                }
            })}
        </>
    );
}

```

```
}  
  
export default Telecom;
```

### Output:



### Question # 6

```
import {  
  Text,  
  SafeAreaView,  
  Image,  
  View,  
  Button,  
  StyleSheet,  
} from 'react-native';  
  
import React, { useState } from 'react';  
  
export default function App() {  
  let [left, setleft] = useState(10);  
  let [top, settop] = useState(10);  
  return (  

```

```

<>
<Text>NAME : UMAR NAWAZ</Text>
<Text>ROLL NO : FA20-BCS-080 </Text>
<Text>_____ </Text>
<SafeAreaView style={[styles.container, { left: left }, { top: top }]}>
  <View style={styles.container}>
    <View style={styles.top}>
      <View
        style={[
          styles.button,
          {
            borderTopEndRadius: 40,
            borderTopStartRadius: 40,
            overflow: 'hidden',
          },
        ]}>
        <Button
          title="UP"
          onPress={() => {
            if (top !== 0) settop(top - 10);
          }}
        />
      </View>
    </View>
    <View style={styles.center}>
      <View
        style={[
          styles.button,
          {
            borderTopStartRadius: 25,
            borderBottomStartRadius: 25,
            height: 35,
            overflow: 'hidden',
          },
        ]}>
        <Button
          title="LEFT"
          onPress={() => {
            if (left !== 0) setleft(left - 10);
          }}
        />
      </View>
      <View
        style={[
          styles.button,

```

```

        {
          borderTopEndRadius: 25,
          borderBottomEndRadius: 25,
          height: 35,
          overflow: 'hidden',
        },
      ]}>
      <Button
        title="RIGHT"
        onPress={() => {
          setleft(left + 10);
        }}
      />
    </View>
  </View>
  <View style={styles.bottom}>
    <View
      style={[
        styles.button,
        {
          borderBottomEndRadius: 40,
          borderBottomStartRadius: 40,
          overflow: 'hidden',
          height: 34,
        },
      ]}>
      <Button
        title="DOWN"
        onPress={() => {
          settop(top + 10);
        }}
      />
    </View>
  </View>
</SafeAreaView>
</>
);
}

const styles = StyleSheet.create({
  center: {
    flex: 1,
    flexDirection: 'row',
    justifyContent: 'space-between',
  },
});

```

```

    },
    top: {
      flex: 1,
      flexDirection: 'row',
      justifyContent: 'center',
    },
    bottom: {
      flex: 1,
      flexDirection: 'row',
      justifyContent: 'center',
      justifySelf: 'bottom',
    },
    container: {
      borderWidth: 1,
      borderColor: 'black',

      borderRadius: 5,
      width: 150,
      height: 150,
    },
    button: {
      width: 70,
    },
  },
});

```

### Output:



NAME : UMAR NAWAZ  
ROLL NO : FA20-BCS-080

