



Experiment No. - 5

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Branch: BE-CSE(LEET)

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Subject Name: Mobile Application Development Lab

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Section/Group: 20BCS-ST-801/B

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1. Aim:

Create an Android App using various controls such TexEdit, CheckBox, RadioButton, RadioGroup, etc.

2. Objective:

Understanding and analyze the specific requirement, possibilities and challenges when developing for a mobile application context.

3. System Requirements:

- Microsoft Windows 7/8/10 (32-bit or 64-bit)
- 4 GB RAM minimum, 8 GB RAM recommended (plus 1 GB for the Android Emulator)
- 2 GB of available disk space minimum, 4 GB recommended (500 MB for IDE plus 1.5 GB for Android SDK and emulator system image)
- 1280 x 800 minimum screen resolution
- Java JDK5 or later version
- Java Runtime Environment (JRE) 6 or higher.

4. Steps/Program:

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:orientation="vertical"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="16dp"
    tools:context=".MainActivity">
```

```
<EditText
    android:id="@+id/editText"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:hint="Enter some text" />
```

```
<CheckBox
    android:id="@+id/checkBox"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```



```
        android:text="Student" />

<RadioGroup
    android:id="@+id/radio_group"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal">

    <RadioButton
        android:id="@+id radioButton1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Male" />

    <RadioButton
        android:id="@+id radioButton2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Female" />

</RadioGroup>

<Button
    android:id="@+id/okButton"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:textAllCaps="false"
    android:text="Submit"/>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:gravity="center">

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:textStyle="bold"
        android:textAppearance="?android:textAppearanceLarge" />

</LinearLayout>
```

</LinearLayout>

MainActivity.java

```
package in.innovateria.ws5application;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.CompoundButton;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    private EditText editText;
    private CheckBox checkBox;
    RadioGroup radioGroup;
    String check,gender;
    TextView textView;
    Button okButton;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

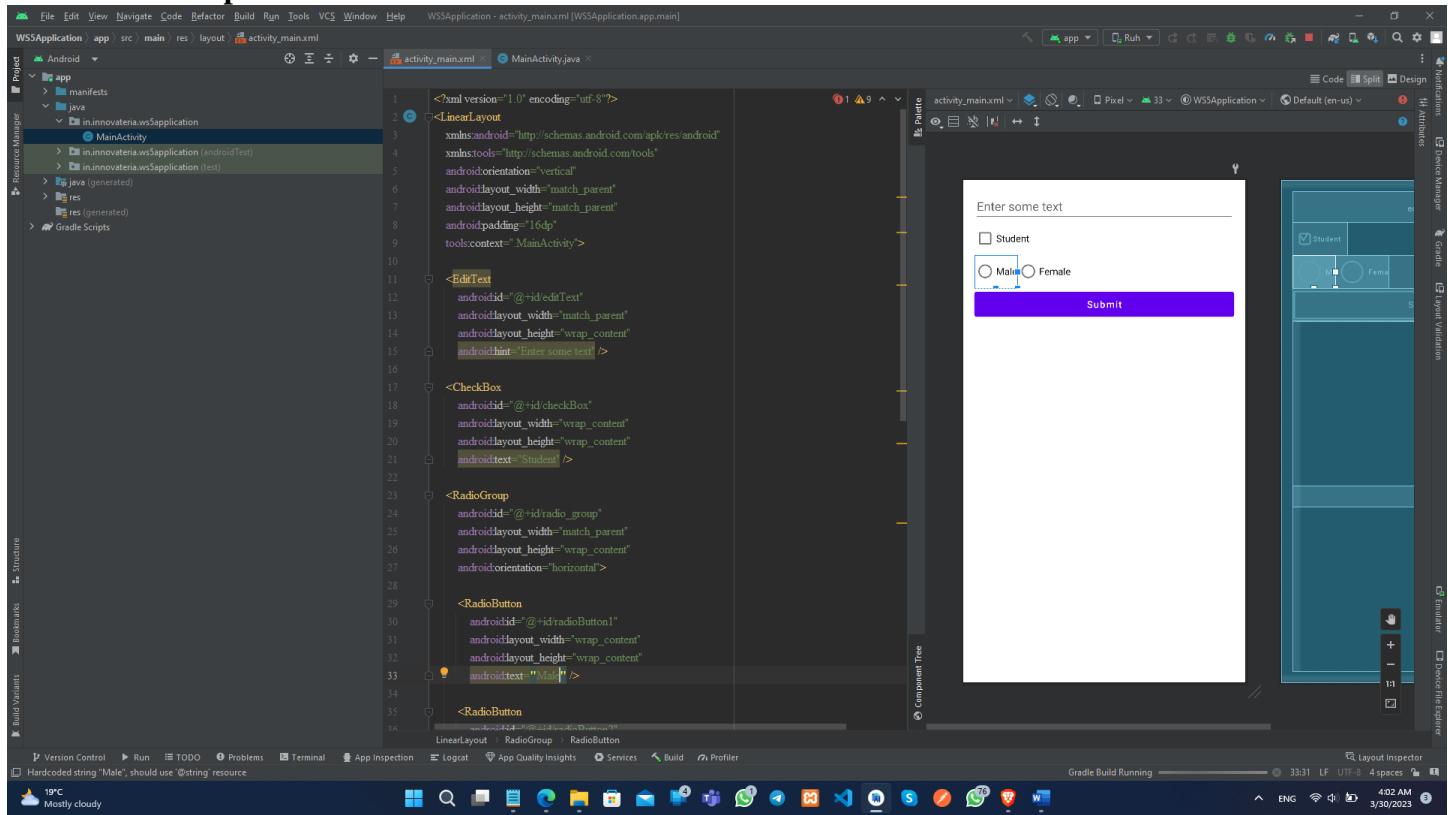
        editText = findViewById(R.id.editText);
        checkBox = findViewById(R.id.checkBox);
        radioGroup = findViewById(R.id.radio_group);
        textView = findViewById(R.id.textView);

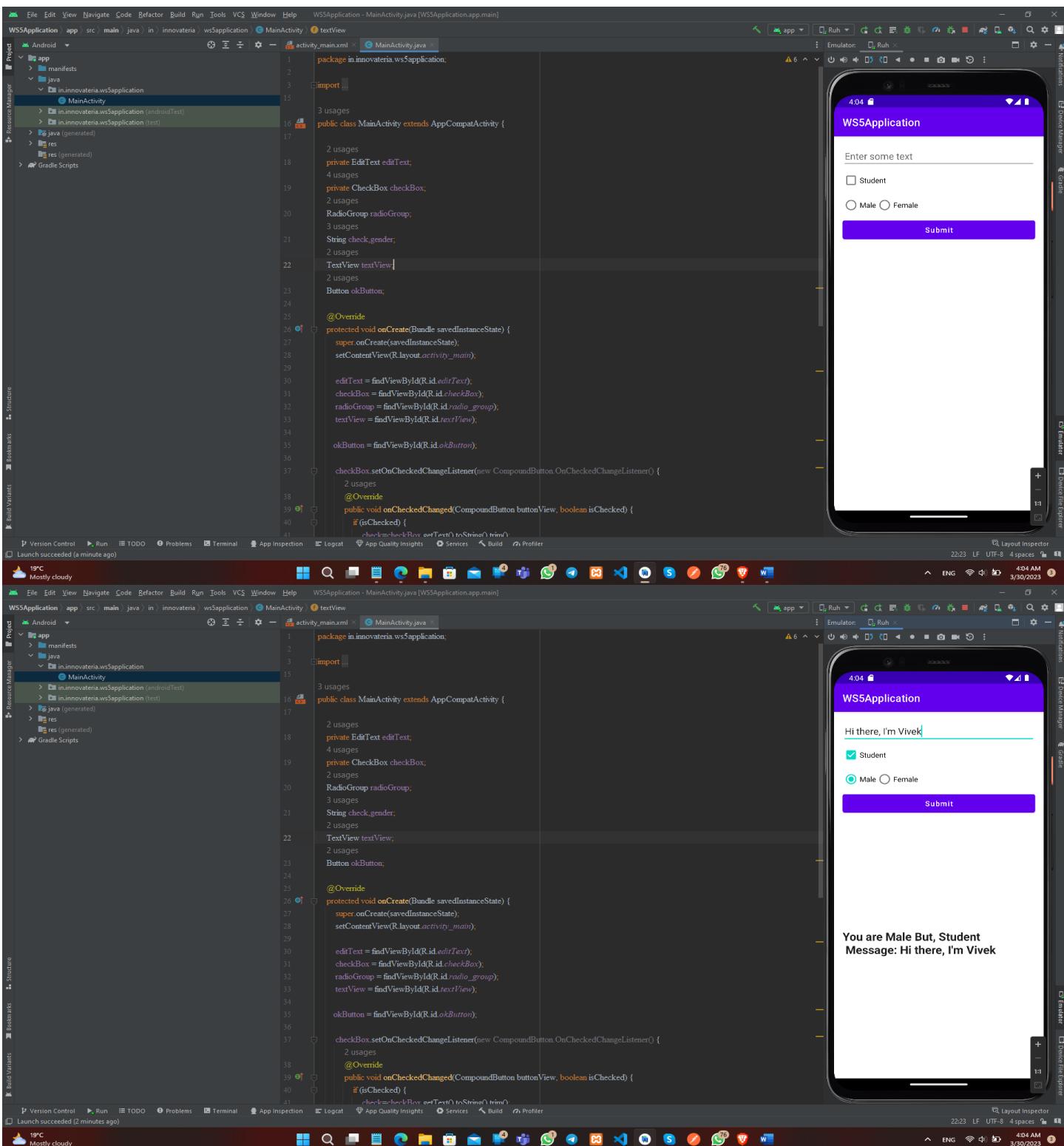
        okButton = findViewById(R.id.okButton);

        checkBox.setOnCheckedChangeListener(new CompoundButton.OnCheckedChangeListener() {
            @Override
            public void onCheckedChanged(CompoundButton buttonView, boolean isChecked) {
                if (isChecked) {
                    check=checkBox.getText().toString().trim();
                } else {
                    check="No "+checkBox.getText().toString().trim();
                }
            }
        });
    }
}
```

```
radioGroup.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {  
    @Override  
    public void onCheckedChanged(RadioGroup group, int checkedId) {  
        // Do something when a RadioButton is checked  
        RadioButton radioButton = findViewById(checkedId);  
        gender = radioButton.getText().toString();  
        Toast.makeText(MainActivity.this, "You selected " + gender, Toast.LENGTH_SHORT).show();  
    }  
});  
  
okButton.setOnClickListener(new View.OnClickListener() {  
    @Override  
    public void onClick(View v) {  
        String text = editText.getText().toString();  
        textView.setText("You are " + gender + " But, " + check + "\n Message: " + text);  
    }  
});
```

5. Result/Output:





Learning outcomes (What I have learnt):

- To design an android application which uses widget in android studio.
 - Learnt about running application on android studio.
 - Creating Application by Implementing Checkbox, RadioButton and EditText.