

Experiment No. - 5

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Branch: BE-CSE(LEET)

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Subject Name: Mobile Application Development Lab

UID: 21BCS8129

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

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1. Aim:

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

2. Objective:

Understanding and analyzing the specific requirements, 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();
```

```
                }
```

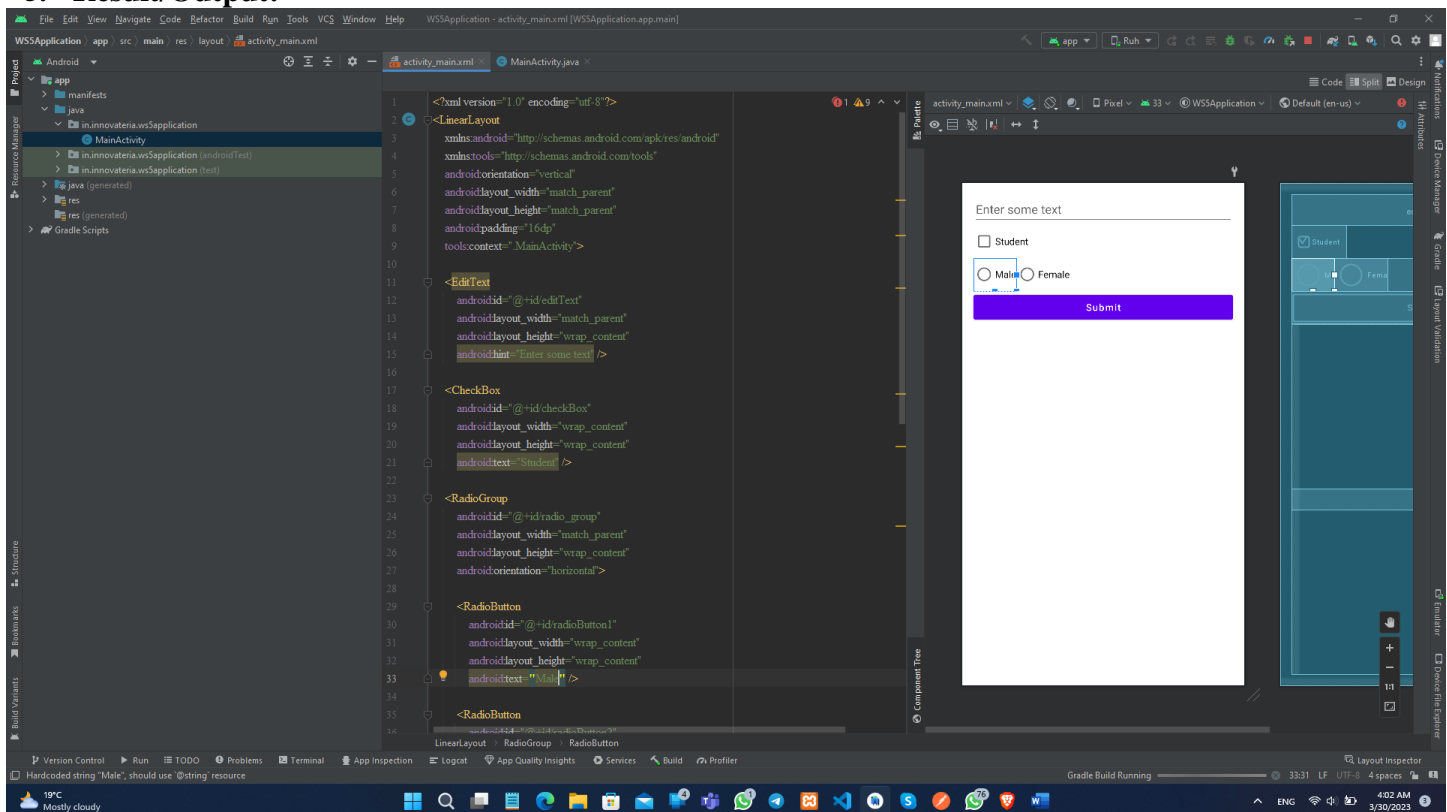
```
            }
```

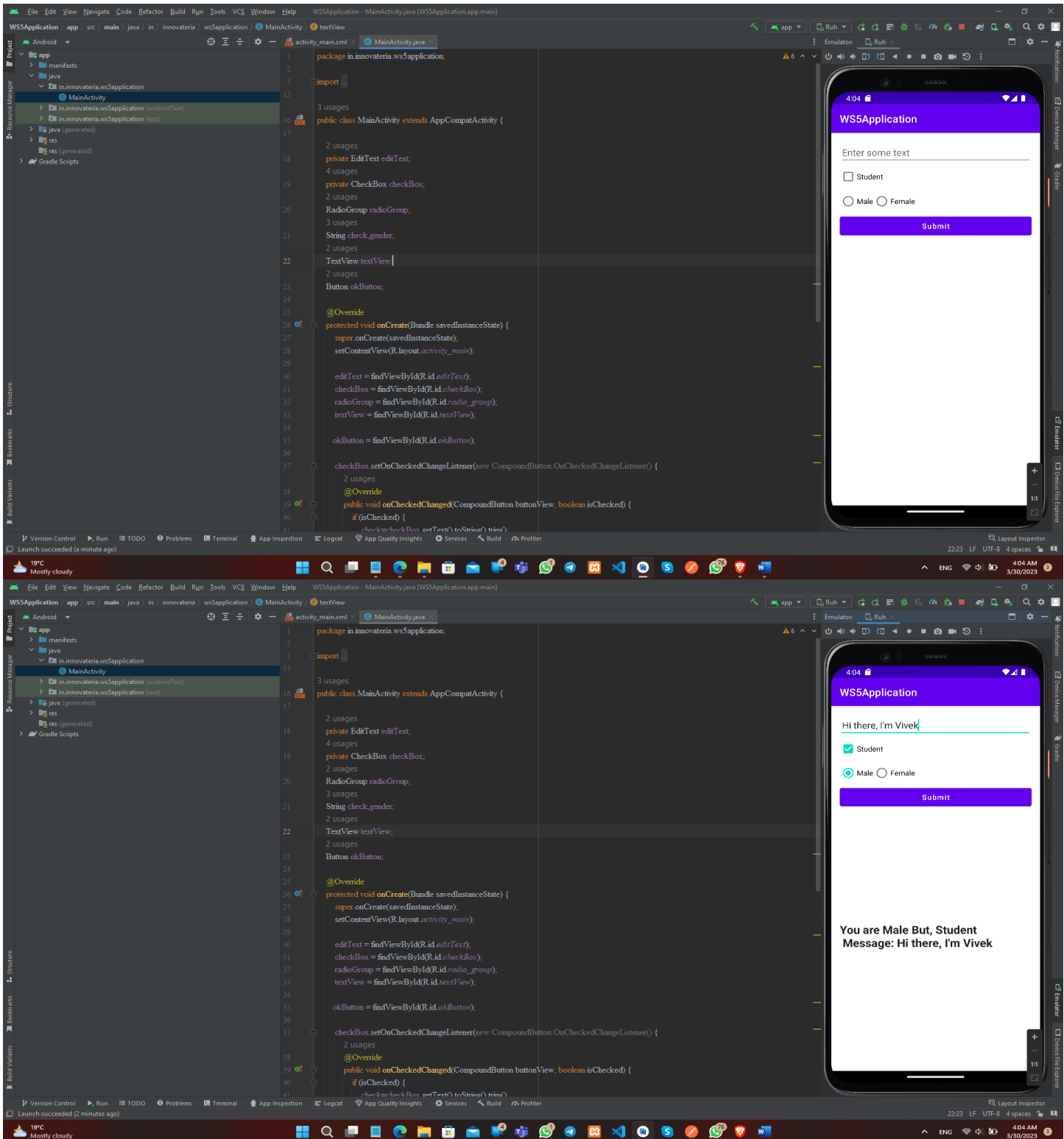
```
        });
```

```
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.

Submitted By: Vivek Kumar