

FR. CONCEICAO RODRIGUES COLLEGE OF ENGINEERING

Department of Computer Engineering

Academic Term : Jan-July 2022

Class : T.E Computer Sem -VI

Subject : Mobile Computing

Practical No:	9
Title:	Mini Android Application
Date of Performance:	28/03/2022
Date of Submission:	11/04/2022
Roll No:	8940
Name of the Student:	Warren Fernandes

Evaluation:

Sr. No	Rubric	Grade
1	On time submission Or completion (2)	
2	Preparedness(2)	
3	Skill (4)	
4	Output (2)	

Signature of the Teacher :

PRACTICAL - 9

Title : To develop a Mini Android Application

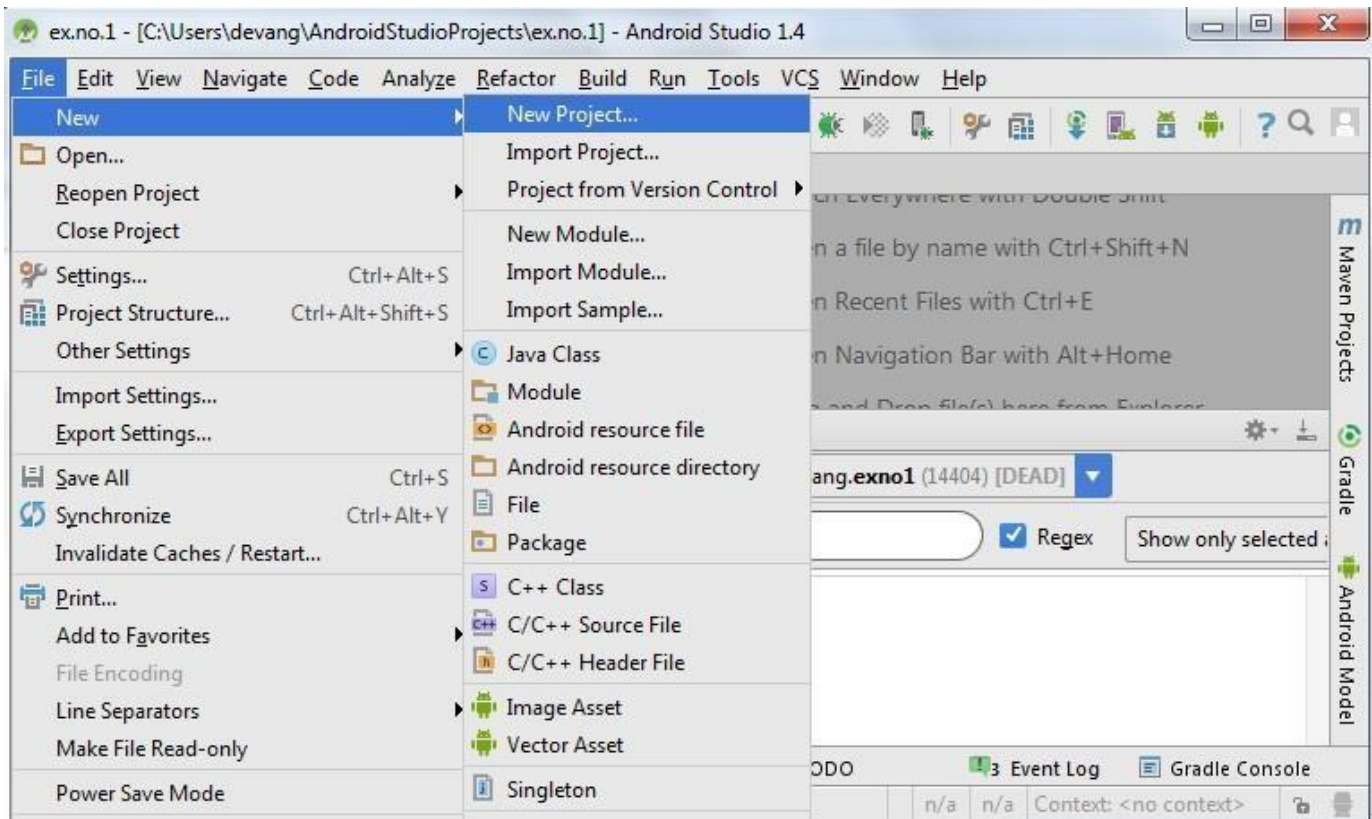
Description: Implement an Android application that takes name as input. It gives radio buttons with list of subjects. User need to choose 1 subject. Then there are list of books user has to choose. Then display name, choice of subject and selected subjects.

Objective : To study basic components and features of Android.

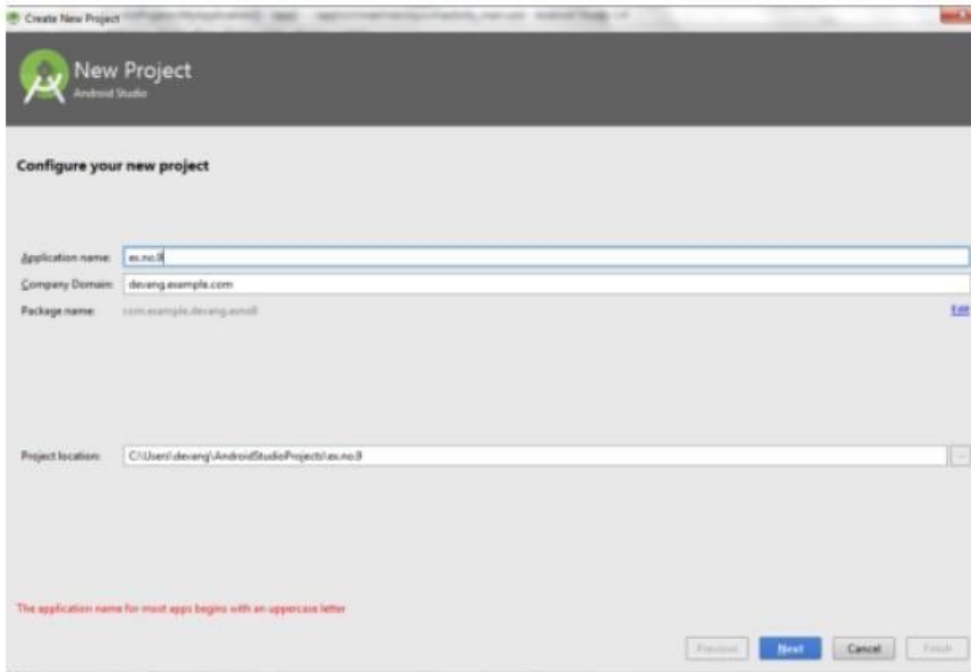
Procedure:

Creating a New project:

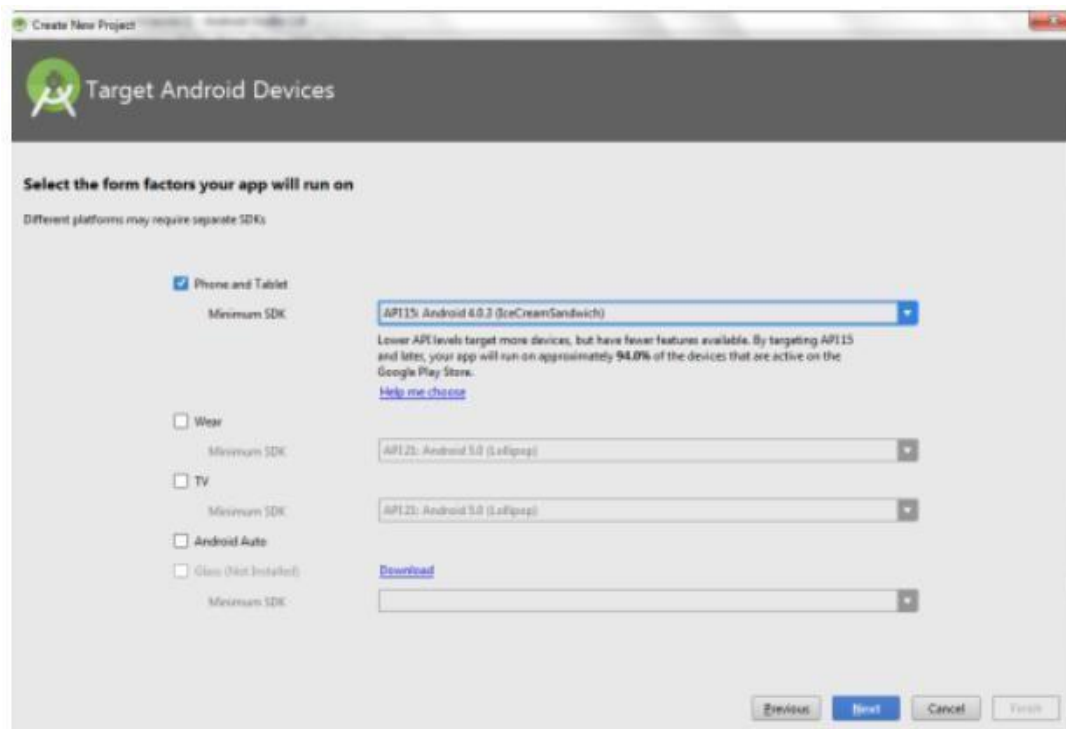
- ✦ Open Android Studio and then click on **File -> New -> New project.**



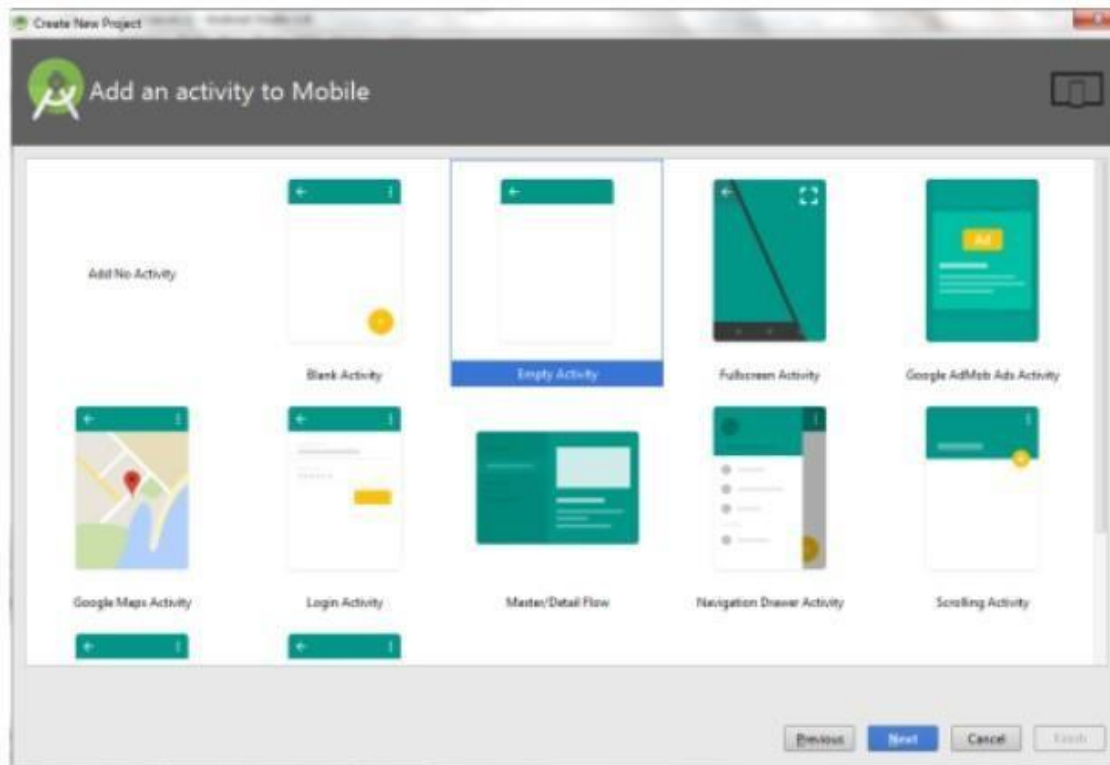
- ✦ Then type the Application name as “**ex.no.9**” and click **Next.**



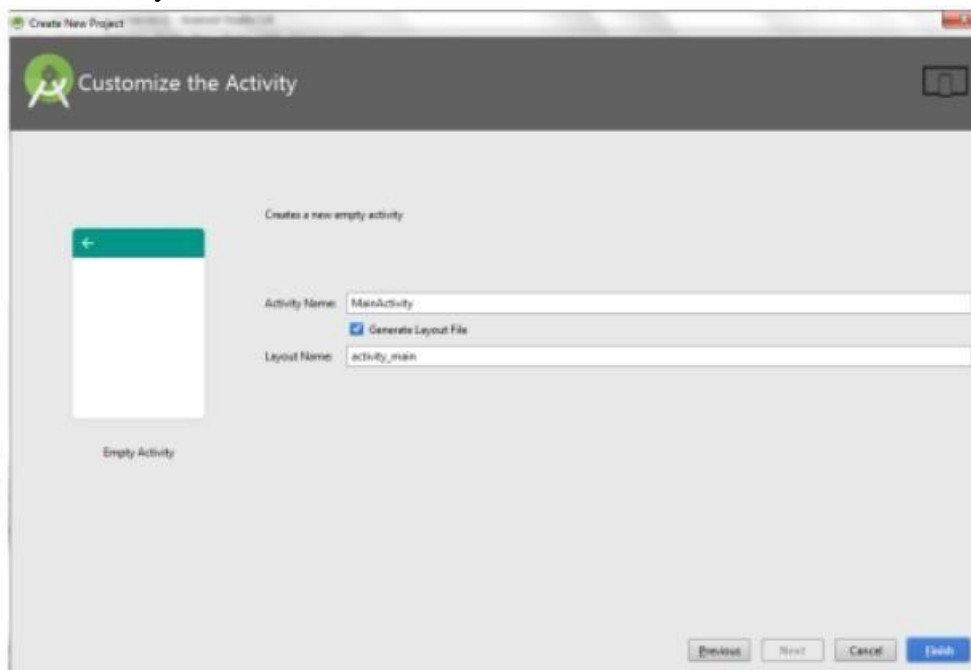
✦ Then select the **Minimum SDK** as shown below and click **Next**.



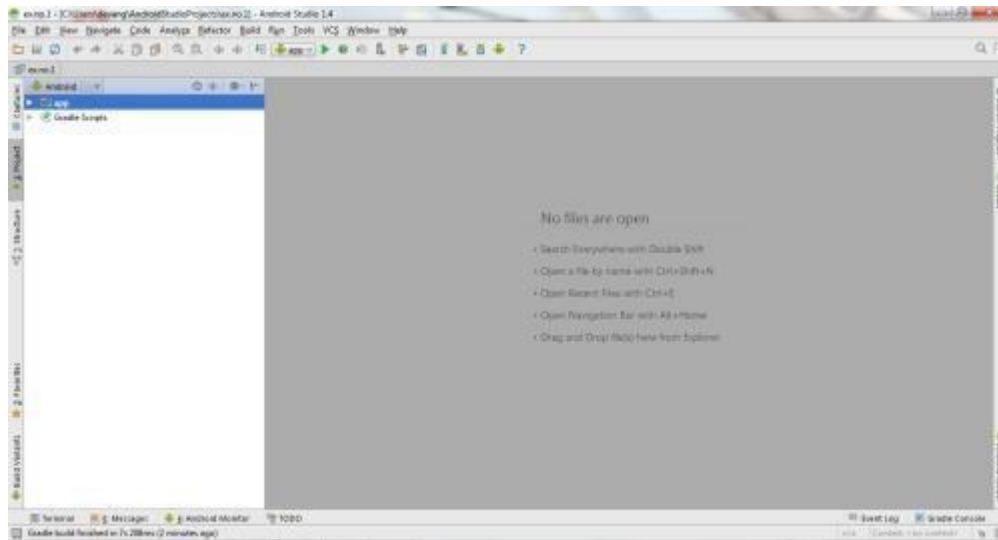
Then select the **Empty Activity** and click **Next**.



✦ Finally click **Finish**.



- ✦ It will take some time to build and load the project.
- ✦ After completion it will look as given below.



Designing layout for the Android Application:

- ✦ Click on app -> res -> layout -> activity_main.xml.
- ✦ Now click on Text as shown below.
- ✦ Then delete the code which is there and type the code as given below.

Code for Activity_main.xml:

```
<?xml version="1.0" encoding="utf-8" ?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="#ffffff"
    android:orientation="vertical"
    tools:context="com.crce.expt9.MainActivity">

    <TextView
        android:id="@+id/textView3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Mobile Computing"
        android:textSize="24sp"/>

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="367dp"
        android:layout_height="43dp"
        android:layout_marginTop="16dp"
        android:ems="10"
        android:inputType="textPersonName"
        android:text="Name"/>

    <TextView
```

```

        android:id="@+id/textView"
        android:layout_width="373dp"
        android:layout_height="40dp"
        android:layout_marginTop="32dp"
        android:text="Choose your Subject:"
        android:textSize="24sp" />

<RadioGroup
    android:id="@+id/groupradio"
    android:layout_width="377dp"
    android:layout_height="195dp">

    <!-- In RadioGroup create the 1 Radio Button-->
    <!-- like this we will add some more Radio Button-->
    <RadioButton
        android:id="@+id/radia_id1"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="DBMS"
        android:textSize="20dp" />

    <RadioButton
        android:id="@+id/radia_id2"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="C/C++ Programming"
        android:textSize="20dp" />

    <RadioButton
        android:id="@+id/radia_id3"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Data Structure"
        android:textSize="20dp" />

    <RadioButton
        android:id="@+id/radia_id4"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="Algorithms"
        android:textSize="20dp" />

</RadioGroup>

<TextView
    android:id="@+id/textView1"
    android:layout_width="368dp"
    android:layout_height="33dp"
    android:layout_marginTop="28dp"
    android:text="Choose your Books:"
    android:textSize="24sp"/>

<CheckBox
    android:id="@+id/checkBox"
    android:layout_width="358dp"

```

```

        android:layout_height="48dp"
        android:text="TechMax"
        android:textSize="18sp"/>

<CheckBox
    android:id="@+id/checkBox2"
    android:layout_width="361dp"
    android:layout_height="47dp"
    android:text="TechNeo"
    android:textSize="18sp"/>

<CheckBox
    android:id="@+id/checkBox3"
    android:layout_width="362dp"
    android:layout_height="47dp"
    android:text="TechKnowledge"
    android:textSize="18sp"/>

<Button
    android:id="@+id/submit"
    android:layout_width="409dp"
    android:layout_height="58dp"
    android:text="submit"/>

</LinearLayout>

```

- ★ Now click on Design and your application will look as given below.
- ★ So now the designing part is completed.
- ★ Click on **app -> java -> com.example.exno9 -> MainActivity**.
- ★ Then delete the code which is there and type the code as given below.
- ★ **Code for MainActivity.java:**

```

import androidx.appcompat.app.AppCompatActivity;

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

public class MainActivity extends AppCompatActivity {

    RadioGroup radioGroup;
    Button submit;
    CheckBox ch, ch1, ch2;
    EditText et;

    @Override
    protected void onCreate(Bundle savedInstanceState) {

```

```

super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
radioGroup = (RadioGroup) findViewById(R.id.groupradio);
submit = (Button) findViewById(R.id.submit);
ch=(CheckBox) findViewById(R.id.checkBox);
ch1=(CheckBox) findViewById(R.id.checkBox2);
ch2=(CheckBox) findViewById(R.id.checkBox3);
et=(EditText) findViewById(R.id.editTextTextPersonName);
// Uncheck or reset the radio buttons initially

// Add the Listener to the RadioGroup
radioGroup.setOnCheckedChangeListener(
    new RadioGroup.OnCheckedChangeListener() {
        @Override
        // The flow will come here when
        // any of the radio buttons in the radioGroup
        // has been clicked
        // Check which radio button has been clicked
        public void onCheckedChanged(RadioGroup group, int checkedId)
        {
            // Get the selected Radio Button
            RadioButton radioButton =
(RadioButton) group.findViewById(checkedId);
        }
    });

// Add the Listener to the Submit Button
submit.setOnClickListener(new View.OnClickListener() {

    @Override
    public void onClick(View v)
    {

        // When submit button is clicked,
        // Ge the Radio Button which is set
        // If no Radio Button is set, -1 will be returned
        String msg="";

        // Concatenation of the checked options in if

        // isChecked() is used to check whether
        // the CheckBox is in true state or not.

        if(ch.isChecked())
            msg = msg + " TechMax ";
        if(ch1.isChecked())
            msg = msg + " TechNeo ";
        if(ch2.isChecked())
            msg = msg + " TechKnowledge ";

        if (msg.equals("")) {
            Toast.makeText(MainActivity.this,
                "No book has been selected",
                Toast.LENGTH_SHORT)
                .show();
        }
    }
});

```



```

int selectedId = radioGroup.getCheckedRadioButtonId();
if (selectedId == -1) {
    Toast.makeText(MainActivity.this,
        "No subject has been selected",
        Toast.LENGTH_SHORT)
        .show();
}
else {

    RadioButton radioButton
        = (RadioButton)radioGroup
            .findViewById(selectedId);

    // Now display the value of selected item
    // by the Toast message
    Toast.makeText(MainActivity.this,
        et.getText().toString() + "\n Subject: "
+radioButton.getText() + "\n Books:\n" + msg,
        Toast.LENGTH_SHORT)
        .show();
    }
    });
}
}

```

- ✦ So now the Coding part is also completed.
- ✦ Now run the application to see the output.

OUTPUT:

