# Android App 1: BMI Calculator

Introduction

BMI calculator is an Android app which will be used to calculate Body Mass Index (BMI) and show the results as weights status given in following table based upon the value of BMI.

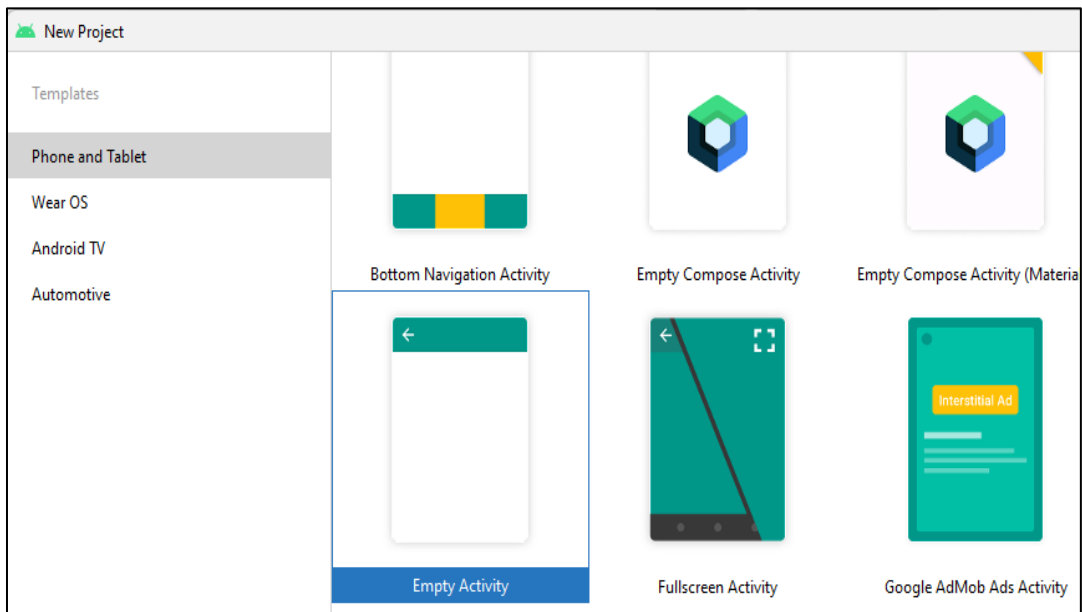Body Mass Index (BMI) is **a person's weight in kilograms) divided by the square of height in meters (or feet)**.

BMI	Weight Status
Below 18.5	Underweight
18.5—24.9	Healthy Weight
25.0—29.9	Overweight
30.0 and Above	Obesity

Let's get Started:

Step 1: Create a New Project in Android Studio as shown below
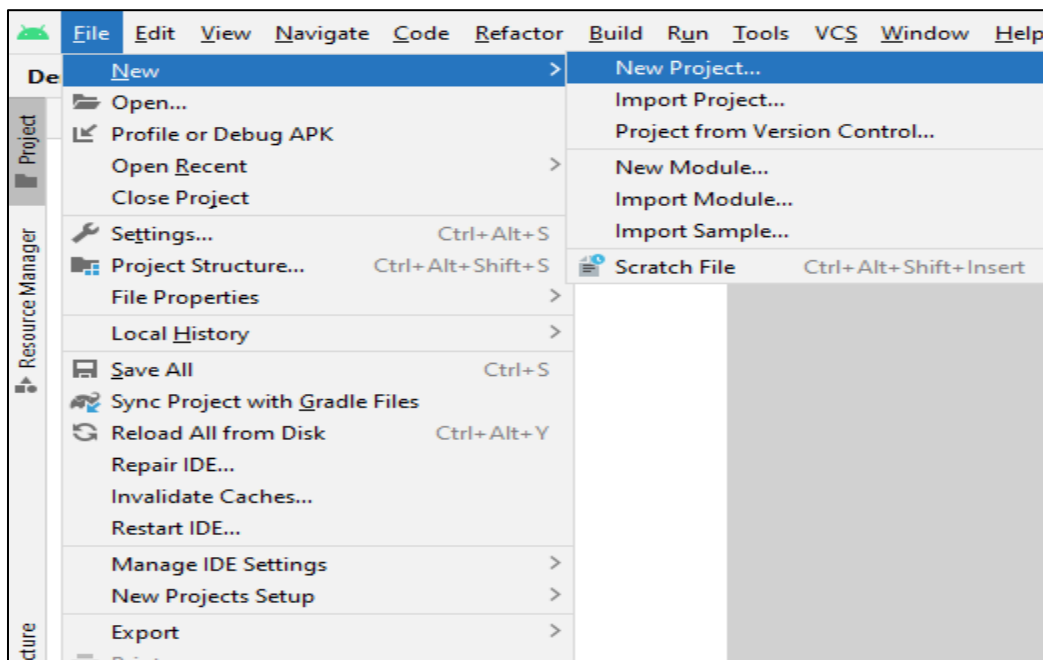
Step 2: Select Empty Activity as shown below

Step 3: Provide a Project Name as shown below

Step 4: Update MainActivity.java as per the code given below

```java
package com.example.democalculatebmi;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        EditText edtWeight, edtHeightFt, edtHeightIn;
        TextView txtResult;
        Button btnCalculate;
        edtWeight=findViewById(R.id.edtWeight);
        edtHeightFt=findViewById(R.id.edtHeightFt);
        edtHeightIn=findViewById(R.id.edtHeightIn);
        txtResult=findViewById(R.id.txtResult);
        btnCalculate=findViewById(R.id.btnCalculate);
        btnCalculate.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
              int wt=  Integer.parseInt(edtWeight.getText().toString());
              int ft=  Integer.parseInt(edtHeightFt.getText().toString());
              int in=  Integer.parseInt(edtHeightIn.getText().toString());
              int totIn= ft*12+in;
              double totCm= totIn*2.53;
              double totM=totCm/100;
              double bmi=wt/(totM*totM);
              if (bmi>25)
              {
                  txtResult.setText("You are Overweight");
              }
              else if(bmi<18)
              {
                  txtResult.setText("You are Under Weight");
              }
              else
              {
                  txtResult.setText("You are Perfect");
              }
            }
        });

    }
}
```

Step 5: Update activity_main.xml for Vertical Orientation as per the code given below

```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:orientation="vertical"
    android:gravity="center"
    tools:context=".MainActivity">

    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:id="@+id/edtWeight"
        android:hint="@string/hintWeight"
        android:inputType="number"
        />
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:id="@+id/edtHeightFt"
        android:hint="@string/hinttHeightFt"
        android:inputType="number"/>
    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:id="@+id/edtHeightIn"
        android:hint="@string/hinttHeightIn"
        android:inputType="number"/>
    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Calculate BMI"
        android:id="@+id/btnCalculate"/>
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="RESULT"
        android:id="@+id/txtResult"/>

</LinearLayout>
```
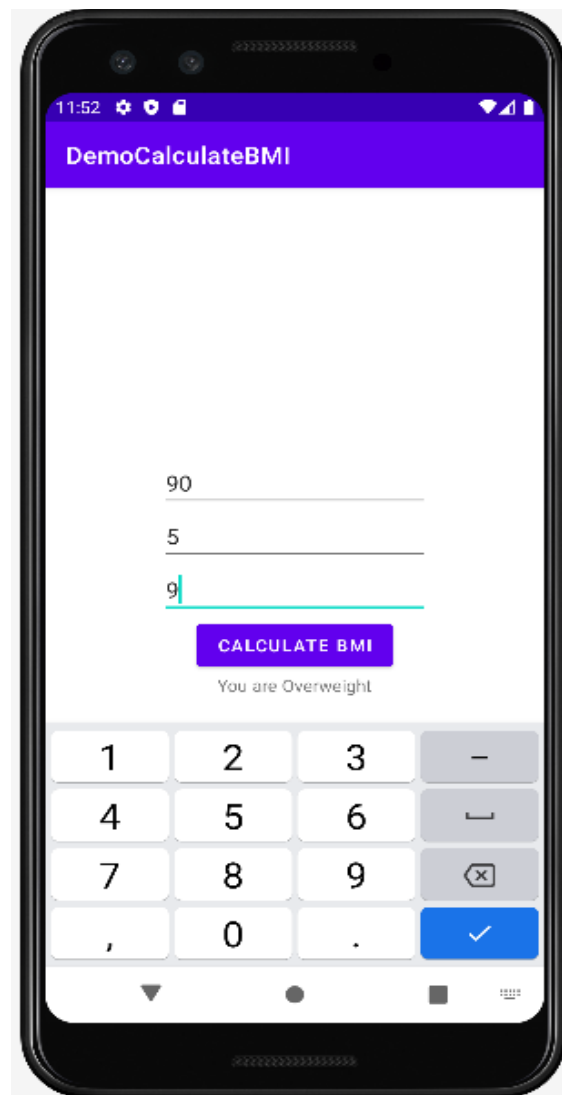
Step 6: Update String.xml for sting values as per the code given below

```xml
<resources>
    <string name="app_name">DemoCalculateBMI</string>
    <string name="hintWeight">Enter Your Weight</string>
    <string name="hinttHeightFt">Enter Your Height (Ft)</string>
    <string name="hinttHeightIn">Enter Your Height (In)</string>
</resources>
```

Step 7: Check Output on Android Emulator and it should look like as given below

Voila!! We have successfully completed this lab.