# **MainActivity.kt**

**package** com.example.lab\_ui\_calc  
  
**import** androidx.appcompat.app.AppCompatActivity  
**import** android.os.Bundle  
**import** android.widget.Button  
**import** android.widget.RadioGroup  
**import** android.widget.TextView  
**import** androidx.core.view.get  
**import** com.example.lab\_ui\_calc.databinding.ActivityMainBinding  
**import** androidx.lifecycle.ViewModelProvider  
  
**private lateinit var** *binding*: ActivityMainBinding  
**private lateinit var** *resetBtn*: Button  
**private lateinit var** *equalsBtn*: Button  
**private lateinit var** *firstNum*: TextView  
**private lateinit var** *secondNum*: TextView  
**private lateinit var** *answerTV*: TextView  
**private lateinit var** *rg* : RadioGroup  
  
**class** MainActivity : AppCompatActivity() {  
 **override fun** onCreate(savedInstanceState: Bundle?) {  
 **super**.onCreate(savedInstanceState)  
 setContentView(R.layout.*activity\_main*)  
 **var** viewModel = ViewModelProvider(**this**).get(MainActivityViewModel::**class**.*java*)  
 *binding* = ActivityMainBinding.inflate(*layoutInflater*)  
 setContentView(*binding*.*root*)  
  
 *firstNum* = *binding*.**firstNum** *secondNum* = *binding*.**secondNum** *resetBtn* = *binding*.**resetBtn** *equalsBtn* = *binding*.**equalsBtn** *answerTV* = *binding*.**answerTv** *rg* = *binding*.**rg** *answerTV*.*text* = viewModel.**answer**.toString()  
 *resetBtn*.setOnClickListener**{** *firstNum*.*text* = **""** *secondNum*.*text* = **""** viewModel.**answer** = 0.0  
 *answerTV*.*text* = viewModel.**answer**.toString()  
 **}** *equalsBtn*.setOnClickListener **{  
 val** selectedId = *rg*.*checkedRadioButtonId* **val** fNum = *firstNum*.*text*.toString().*toDouble*()  
 **val** sNum = *secondNum*.*text*.toString().*toDouble*()  
  
 **if**(selectedId == *binding*.**addRb**.*id*){  
 viewModel.**answer** = fNum + sNum  
 *answerTV*.*text* = viewModel.**answer**.toString()  
 }  
 **else if**(selectedId == *binding*.**subRb**.*id*){  
 viewModel.**answer** = fNum - sNum  
 *answerTV*.*text* = viewModel.**answer**.toString()  
 }  
 **else if**(selectedId == *binding*.**multpRb**.*id*){  
 viewModel.**answer** = fNum \* sNum  
 *answerTV*.*text* = viewModel.**answer**.toString()  
 }  
 **else if**(selectedId == *binding*.**divRb**.*id*){  
 **if**(sNum != 0.0) {  
 viewModel.**answer** = fNum / sNum  
 *answerTV*.*text* = viewModel.**answer**.toString()  
 }  
 **else** {  
 *answerTV*.*text* = **"Error"** }  
 }  
 **}** }  
}

# **MainActivityViewModel.kt**

**package** com.example.lab\_ui\_calc  
  
**import** androidx.lifecycle.ViewModel  
  
**class** MainActivityViewModel:ViewModel() {  
 **var answer** = 0.0  
}

# **activity\_main.xml**

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout 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"  
 tools:context=".MainActivity"**>  
  
 <**TextView  
 android:id="@+id/textView"  
 android:layout\_width="205dp"  
 android:layout\_height="35dp"  
 android:layout\_marginTop="10dp"  
 android:text="Basic calculator"  
 android:textAlignment="center"  
 android:textAllCaps="true"  
 android:textSize="20sp"  
 android:textStyle="bold|italic"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="HardcodedText,TextSizeCheck"** />  
  
 <**LinearLayout  
 android:id="@+id/linearLayout"  
 android:layout\_width="409dp"  
 android:layout\_height="100dp"  
 android:layout\_marginStart="10dp"  
 android:layout\_marginTop="15dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView"  
 tools:ignore="VisualLintBounds"**>  
  
 <**EditText  
 android:id="@+id/firstNum"  
 android:layout\_width="200dp"  
 android:layout\_height="80dp"  
 android:ems="10"  
 android:hint="first number"  
 android:inputType="number|numberDecimal"  
 android:textSize="24sp"  
 android:autofillHints=""  
 tools:ignore="HardcodedText"** />  
  
 <**EditText  
 android:id="@+id/secondNum"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="80dp"  
 android:ems="10"  
 android:hint="second number"  
 android:inputType="number|numberDecimal"  
 android:textSize="24sp"  
 android:autofillHints=""  
 tools:ignore="HardcodedText"** />  
  
 </**LinearLayout**>  
  
 <**LinearLayout  
 android:id="@+id/linearLayout2"  
 android:layout\_width="409dp"  
 android:layout\_height="198dp"  
 android:layout\_marginStart="10dp"  
 android:orientation="vertical"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/linearLayout"  
 tools:ignore="VisualLintBounds,TextSizeCheck"**>  
  
 <**RadioGroup  
 android:id="@+id/rg"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:ignore="UselessParent"**>  
  
 <**RadioButton  
 android:id="@+id/add\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:checked="true"  
 android:text="Addition"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 <**RadioButton  
 android:id="@+id/sub\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Subtraction"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 <**RadioButton  
 android:id="@+id/multp\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Multiplication"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 <**RadioButton  
 android:id="@+id/div\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Divition"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
 </**RadioGroup**>  
 </**LinearLayout**>  
  
 <**androidx.constraintlayout.widget.ConstraintLayout  
 android:layout\_width="413dp"  
 android:layout\_height="373dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="1.0"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/linearLayout2"  
 app:layout\_constraintVertical\_bias="0.0"  
 tools:ignore="VisualLintBounds"**>  
  
 <**Button  
 android:id="@+id/reset\_btn"  
 android:layout\_width="105dp"  
 android:layout\_height="105dp"  
 android:layout\_marginStart="92dp"  
 android:layout\_marginTop="48dp"  
 android:text="C"  
 android:textSize="50sp"  
 android:textStyle="bold"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="HardcodedText"** />  
  
 <**Button  
 android:id="@+id/equals\_btn"  
 android:layout\_width="105dp"  
 android:layout\_height="105dp"  
 android:layout\_marginStart="28dp"  
 android:layout\_marginTop="48dp"  
 android:text="="  
 android:textSize="50sp"  
 android:textStyle="bold"  
 app:layout\_constraintStart\_toEndOf="@+id/reset\_btn"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="HardcodedText"** />  
  
 <**TextView  
 android:id="@+id/answer\_tv"  
 android:layout\_width="338dp"  
 android:layout\_height="39dp"  
 android:layout\_marginTop="68dp"  
 android:text="@string/Answer"  
 android:textAlignment="center"  
 android:textSize="24sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.493"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/reset\_btn"  
 app:layout\_constraintVertical\_bias="0.0"  
 tools:ignore="TextSizeCheck"** />  
 </**androidx.constraintlayout.widget.ConstraintLayout**>  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

# **activity\_main.xml(land)**

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout 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"**>  
  
 <**LinearLayout  
 android:id="@+id/linearLayout"  
 android:layout\_width="720dp"  
 android:layout\_height="92dp"  
 android:layout\_marginTop="15dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView"  
 tools:ignore="UnknownIdInLayout"**>  
  
 <**EditText  
 android:id="@+id/firstNum"  
 android:layout\_width="360dp"  
 android:layout\_height="80dp"  
 android:ems="10"  
 android:hint="first number"  
 android:inputType="number"  
 android:textSize="24sp"  
 android:autofillHints=""  
 tools:ignore="HardcodedText"** />  
  
 <**EditText  
 android:id="@+id/secondNum"  
 android:layout\_width="match\_parent"  
 android:layout\_height="80dp"  
 android:ems="10"  
 android:hint="second number"  
 android:inputType="number"  
 android:textSize="24sp"  
 android:autofillHints=""  
 tools:ignore="HardcodedText"** />  
  
 </**LinearLayout**>  
  
 <**LinearLayout  
 android:id="@+id/linearLayout2"  
 android:layout\_width="384dp"  
 android:layout\_height="196dp"  
 android:orientation="vertical"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@+id/constraintLayout"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/linearLayout"  
 app:layout\_constraintVertical\_bias="0.5"  
 tools:ignore="TextSizeCheck"**>  
  
 <**RadioGroup  
 android:id="@+id/rg"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 tools:ignore="UselessParent"**>  
  
 <**RadioButton  
 android:id="@+id/add\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:checked="true"  
 android:text="Addition"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 <**RadioButton  
 android:id="@+id/sub\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Subtraction"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 <**RadioButton  
 android:id="@+id/multp\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Multiplication"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 <**RadioButton  
 android:id="@+id/div\_rb"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:text="Divition"  
 android:textSize="20sp"  
 tools:ignore="HardcodedText,VisualLintButtonSize"** />  
  
 </**RadioGroup**>  
 </**LinearLayout**>  
  
 <**androidx.constraintlayout.widget.ConstraintLayout  
 android:id="@+id/constraintLayout"  
 android:layout\_width="288dp"  
 android:layout\_height="241dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toEndOf="@+id/linearLayout2"  
 app:layout\_constraintTop\_toBottomOf="@+id/linearLayout"**>  
  
 <**Button  
 android:id="@+id/equals\_btn"  
 android:layout\_width="105dp"  
 android:layout\_height="105dp"  
 android:layout\_marginStart="16dp"  
 android:layout\_marginTop="10dp"  
 android:text="="  
 android:textSize="50sp"  
 android:textStyle="bold"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.0"  
 app:layout\_constraintStart\_toEndOf="@+id/reset\_btn"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="HardcodedText"** />  
  
 <**Button  
 android:id="@+id/reset\_btn"  
 android:layout\_width="105dp"  
 android:layout\_height="105dp"  
 android:layout\_marginStart="40dp"  
 android:layout\_marginTop="10dp"  
 android:text="C"  
 android:textSize="50sp"  
 android:textStyle="bold"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 tools:ignore="HardcodedText"** />  
  
 <**TextView  
 android:id="@+id/answer\_tv"  
 android:layout\_width="284dp"  
 android:layout\_height="47dp"  
 android:layout\_marginTop="10dp"  
 android:text="@string/Answer"  
 android:textAlignment="center"  
 android:textSize="24sp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/reset\_btn"  
 app:layout\_constraintVertical\_bias="0.328"** />  
 </**androidx.constraintlayout.widget.ConstraintLayout**>  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

# **Screenshots**

A screenshot of a computer

Description automatically generated

A cellphone with text on screen

Description automatically generated

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated