# **Hybrid Application Development Lab Assignment - 2**

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Subject: Hybrid Application Development Lab

### 2. Make a calculator app.

Code:

### MainActivity.java:

```
package com.example.my application;
       import androidx.appcompat.app.AppCompatActivity;
       import android.os.Bundle;
       import android.view.View;
       import android.widget.EditText;
public class MainActivity extends AppCompatActivity {
  boolean isNewOp = true;
  EditText ed1;
   String op, oldNumber;
   @Override
  protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);
       ed1 = findViewById(R.id.editText);
   }
  public void numberEvent(View view) {
       if(isNewOp)
           ed1.setText("");
       isNewOp = false;
       String number = ed1.getText().toString();
       switch(view.getId()){
           case R.id.but 1:
               number += "1";
               break;
           case R.id.but 2:
               number += "2";
               break;
           case R.id.but 3:
```

```
number += "3";
            break;
        case R.id.but 4:
            number += "4";
            break;
        case R.id.but 5:
            number += "5";
            break;
        case R.id.but 6:
            number += "6";
            break;
        case R.id.but 7:
            number += "7";
            break;
        case R.id.but_8:
            number += "8";
            break;
        case R.id.but 9:
            number += "9";
            break;
        case R.id.but 0:
            number += "0";
            break;
        case R.id.but dot:
            number += ".";
            break;
        case R.id.but_plus_minus:
            number += "-"+number;
            break;
    }
    ed1.setText(number);
}
public void operatorEvent(View view) {
    isNewOp = true;
    oldNumber = ed1.getText().toString();
    switch(view.getId())
        case R.id.but divide: op = "/"; break;
        case R.id.but star: op = "*"; break;
        case R.id.but plus: op = "+"; break;
        case R.id.but minus: op = "-"; break;
    }
}
public void equalEvent(View view) {
```

```
String newNumber = ed1.getText().toString();
       double result = 0.0;
       switch(op) {
           case "+":
               result = Double.parseDouble(oldNumber) +
Double.parseDouble(newNumber);
              break;
          case "-":
               result = Double.parseDouble(oldNumber) -
Double.parseDouble(newNumber);
              break;
          case "*":
               result = Double.parseDouble(oldNumber) *
Double.parseDouble(newNumber);
               break;
          case "/":
               result = Double.parseDouble(oldNumber) /
Double.parseDouble(newNumber);
              break;
       }
       ed1.setText(result+"");
   }
  public void acEvent(View view) {
       ed1.setText("0");
       isNewOp = true;
   }
  public void percentEvent(View view) {
       double no = Double.parseDouble(ed1.getText().toString())/100;
       ed1.setText(no+"");
       isNewOp = true;
   }
```

#### Activity\_main.xml:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
  android:layout width="match parent"
   android:layout height="wrap content"
   android:orientation="vertical"
   tools:context=".MainActivity" >
   <EditText
       android:id="@+id/editText"
       android:layout width="match parent"
       android:layout height="213dp"
       android:background="@color/cardview dark background"
       android:ems="10"
       android:gravity="right|center"
       android:inputType="textPersonName"
       android:text="0"
       android:textSize="40pt" />
   <TableLayout
       android:layout width="match parent"
       android:layout height="wrap content">
      <TableRow
           android:layout width="match parent"
           android:layout height="match parent">
           <Button
               android:id="@+id/but ac"
               android:layout width="30pt"
               android:layout height="30pt"
               android:layout marginTop="1pt"
               android:layout marginRight="1pt"
               android:layout weight="1"
               android:onClick="acEvent"
               android:text="AC" />
           <Button
               android:id="@+id/but plus minus"
               android:layout width="30pt"
               android:layout height="30pt"
               android:layout marginTop="1pt"
               android:layout marginRight="1pt"
               android:layout weight="1"
               android:onClick="numberEvent"
```

```
android:text="+/-" />
    <Button
        android:id="@+id/but slash"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="percentEvent"
        android:text="%" />
    <Button
        android:id="@+id/but dot"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout_marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="." />
</TableRow>
<TableRow
    android:layout width="match parent"
    android:layout height="wrap content">
    <Button
        android:id="@+id/but 7"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="7" />
    <Button
        android:id="@+id/but 8"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="8" />
    <Button
```

```
android:id="@+id/but 9"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android: onClick="numberEvent"
        android:text="9" />
    <Button
        android:id="@+id/but divide"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="operatorEvent"
        android:text="/" />
</TableRow>
<TableRow
    android:layout width="match parent"
    android:layout height="wrap content" >
   <Button
        android:id="@+id/but 4"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="4" />
    <Button
        android:id="@+id/but 5"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="5" />
   <Button
        android:id="@+id/but 6"
        android:layout width="30pt"
        android:layout height="30pt"
```

```
android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="6" />
   <Button
        android:id="@+id/but plus"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="operatorEvent"
        android:text="+" />
</TableRow>
<TableRow
    android:layout width="match parent"
    android:layout height="wrap content" >
    <Button
        android:id="@+id/but 1"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="1" />
   <Button
        android:id="@+id/but 2"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout marginRight="1pt"
        android:layout weight="1"
        android:onClick="numberEvent"
        android:text="2" />
   <Button
        android:id="@+id/but 3"
        android:layout width="30pt"
        android:layout height="30pt"
        android:layout marginTop="1pt"
        android:layout_marginRight="1pt"
        android:layout weight="1"
        android: onClick="numberEvent"
```

```
android:text="3" />
           <Button
               android:id="@+id/but minus"
               android:layout width="30pt"
               android:layout height="30pt"
               android:layout marginTop="1pt"
               android:layout marginRight="1pt"
               android:layout weight="1"
               android:onClick="operatorEvent"
               android:text="-" />
       </TableRow>
       <TableRow
           android:layout width="match parent"
           android:layout height="wrap content">
           <Button
               android:id="@+id/but 0"
               android:layout width="45pt"
               android:layout height="30pt"
               android:layout marginTop="1pt"
               android:layout marginRight="1pt"
               android:layout weight="2"
               android:onClick="numberEvent"
               android:text="0" />
           <Button
               android:id="@+id/but equals"
               android:layout width="45pt"
               android:layout height="30pt"
               android:layout marginTop="1pt"
               android:layout marginRight="1pt"
               android:layout weight="2"
               android:onClick="equalEvent"
               android:text="=" />
           <Button
               android:id="@+id/but star"
               android:layout width="30pt"
               android:layout height="30pt"
               android:layout marginTop="1pt"
               android:layout marginRight="1pt"
               android:layout_weight="1"
               android:onClick="operatorEvent"
               android:text="*" />
       </TableRow>
   </TableLayout>
</LinearLayout>
```

# **Output:**

