**MainActivity.java**

**package** com.example.user.cal;  
  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
  
**public class** MainActivity **extends** AppCompatActivity **implements** View.OnClickListener  
{  
 **private** Button  
 btnsin,btncos,btntan,btnadd,btnsub,btnmul,btndiv,btnSqrt,btnatan,btnSav,btnRec,btnClr;  
 **private** EditText etnum,etres,etnum2;  
 **private static double** memoryValue,inputvalue;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
 init();  
 }  
 **private void** init(){  
 btnsin=(Button)findViewById(R.id.btnSin);  
 btncos=(Button)findViewById(R.id.btnCos);  
 btntan=(Button)findViewById(R.id.btnTan);  
 btnadd=(Button)findViewById(R.id.btnAdd);  
 btnsub=(Button)findViewById(R.id.btnSub);  
 btnmul=(Button)findViewById(R.id.btnMult);  
 btndiv=(Button)findViewById(R.id.btnDiv);  
 btnSqrt=(Button)findViewById(R.id.btnsqrt);  
 btnClr=(Button)findViewById(R.id.btnclr);  
 btnRec=(Button)findViewById(R.id.btnmr);  
 btnSav=(Button)findViewById(R.id.btnms);  
 etnum=(EditText)findViewById(R.id.etNum);  
 etnum2=(EditText)findViewById(R.id.etNum2);  
 etres=(EditText)findViewById(R.id.tvResult);  
 btnsin.setOnClickListener(**this**);  
 btncos.setOnClickListener(**this**);  
 btntan.setOnClickListener(**this**);  
 btnadd.setOnClickListener(**this**);  
 btnsub.setOnClickListener(**this**);  
 btnmul.setOnClickListener(**this**);  
 btndiv.setOnClickListener(**this**);  
 btnSqrt.setOnClickListener(**this**);  
 btnClr.setOnClickListener(**this**);  
 btnRec.setOnClickListener(**this**);  
 btnSav.setOnClickListener(**this**);  
 }  
 **public void** onClick(View view){  
 String num1=etnum.getText().toString();  
   
 **switch**(view.getId()){  
 **case** R.id.btnSin:  
 **double** sin= Math.sin(Double.parseDouble(num1));  
 etres.setText(String.valueOf(sin));  
 **break**;  
 **case** R.id.btnCos:  
 **double** Cos=Math.cos(Double.parseDouble(num1));  
 etres.setText(String.valueOf(Cos));  
 **break**;  
 **case** R.id.btnTan:  
 **double** Tan=Math.tan(Double.parseDouble(num1));  
 etres.setText(String.valueOf(Tan));  
 **break**;  
 **case** R.id.btnSub:  
 **double** sub=Double.parseDouble(etnum2.getText().toString())-  
 Double.parseDouble(num1);  
 etres.setText(String.valueOf(sub));  
 **break**;  
 **case** R.id.btnAdd:  
 **double** add=Double.parseDouble(etnum2.getText().toString())+Double.parseDouble(num1);  
 etres.setText(String.valueOf(add));  
 **break**;  
 **case** R.id.btnMult:  
 **double** mul=Double.parseDouble(etnum2.getText().toString())\*Double.parseDouble(num1);  
 etres.setText(String.valueOf(mul));  
 **break**;  
 **case** R.id.***btnDiv***:  
 **double** div=Double.*parseDouble*(**etnum2**.getText().toString())/Double.*parseDouble*(num1);  
 **etres**.setText(String.*valueOf*(div));  
 **break**;  
 **case** R.id.***btnsqrt***:  
 **double** sqrt=Math.*sqrt*(Double.*parseDouble*(num1));  
 **etres**.setText(String.*valueOf*(sqrt));  
 **break**;  
 **case** R.id.***btnclr***:  
 *memoryValue* = Double.***NaN***;  
 **etres**.setText(**"data cleared"**);  
 **break**;  
 **case** R.id.***btnmr***:  
 **if** (Double.*isNaN*(*memoryValue*)) {  
 **etres**.setText(**"no data"**);  
 }  
 **else  
 etres**.setText(String.*valueOf*((**int**)*memoryValue*));  
 **break**;  
 **case** R.id.***btnms***:  
 *inputvalue*= Double.*parseDouble*(**etres**.getText().toString());  
 **if** (Double.*isNaN*(*inputvalue*)){  
 **etres**.setText(**"no data"**);}  
 **else** {  
 *memoryValue* = *inputvalue*;  
 **etres**.setText(String.*valueOf*(*memoryValue*));}  
 **break**;  
 }  
 }  
}

XML Version

*<?***xml version="1.0" encoding="utf-8"***?>*<**RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"  
 xmlns:tools="http://schemas.android.com/tools" android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:paddingLeft="16dp"  
 android:paddingRight="16dp"  
 android:paddingTop="16dp"  
 android:paddingBottom="16dp"  
 tools:context=".MainActivity"**>  
  
<**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceLarge"  
 android:text="Calculator"  
 android:id="@+id/textView"  
 android:layout\_alignParentTop="true"  
 android:layout\_centerHorizontal="true"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceMedium"  
 android:text="Enter Input 1"  
 android:id="@+id/textView2"  
 android:layout\_below="@+id/textView"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**EditText  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:inputType="number"  
 android:ems="10"  
 android:id="@+id/etNum"  
 android:layout\_below="@+id/textView2"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceMedium"  
 android:text="Result"  
 android:id="@+id/textView3"  
 android:layout\_above="@+id/tvResult"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**EditText  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:inputType="number"  
 android:ems="10"  
 android:id="@+id/tvResult"  
 android:layout\_centerVertical="true"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Sine"  
 android:id="@+id/btnSin"  
 android:layout\_marginTop="53dp"  
 android:layout\_below="@+id/tvResult"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceMedium"  
 android:text="Medium Text"  
 android:id="@+id/textView5"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Cosine"  
 android:id="@+id/btnCos"  
 android:layout\_alignTop="@+id/btnSin"  
 android:layout\_toRightOf="@+id/btnSin"  
 android:layout\_toEndOf="@+id/btnSin"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Tan"  
 android:id="@+id/btnTan"  
 android:layout\_alignTop="@+id/btnCos"  
 android:layout\_toRightOf="@+id/btnSub"  
 android:layout\_toEndOf="@+id/btnSub"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="+"  
 android:id="@+id/btnAdd"  
 android:layout\_alignTop="@+id/btnSub"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="-"  
 android:id="@+id/btnSub"  
 android:layout\_alignTop="@+id/btnMult"  
 android:layout\_toRightOf="@+id/btnAdd"  
 android:layout\_toEndOf="@+id/btnAdd"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="\*"  
 android:id="@+id/btnMult"  
 android:layout\_below="@+id/btnCos"  
 android:layout\_toRightOf="@+id/btnSub"  
 android:layout\_toEndOf="@+id/btnSub"  
 android:layout\_marginTop="53dp"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="/"  
 android:id="@+id/btnDiv"  
 android:layout\_alignTop="@+id/btnMult"  
 android:layout\_toRightOf="@+id/btnMult"  
 android:layout\_toEndOf="@+id/btnMult"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="Sq Rt"  
 android:id="@+id/btnsqrt"  
 android:layout\_above="@+id/btnMult"  
 android:layout\_alignLeft="@+id/btnDiv"  
 android:layout\_alignStart="@+id/btnDiv"** />  
 <**TextView  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:textAppearance="?android:attr/textAppearanceMedium"  
 android:text="Enter Input 2"  
 android:id="@+id/textView4"  
 android:layout\_below="@+id/etNum"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**EditText  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:inputType="numberDecimal"  
 android:ems="10"  
 android:id="@+id/etNum2"  
 android:layout\_below="@+id/textView4"  
 android:layout\_alignParentLeft="true"  
 android:layout\_alignParentStart="true"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="MC"  
 android:id="@+id/btnclr"  
 android:layout\_above="@+id/btnCos"  
 android:layout\_toLeftOf="@+id/textView"  
 android:layout\_toStartOf="@+id/textView"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="MR"  
 android:id="@+id/btnmr"  
 android:layout\_above="@+id/btnCos"  
 android:layout\_alignLeft="@+id/textView"  
 android:layout\_alignStart="@+id/textView"** />  
 <**Button  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="MS"  
 android:id="@+id/btnms"  
 android:layout\_alignBottom="@+id/btnmr"  
 android:layout\_toRightOf="@+id/btnmr"  
 android:layout\_toEndOf="@+id/btnmr"** />  
</**RelativeLayout**>