



## **Onboarding – Calculadora Científica**

**Estudiante:** Johan Alejandro Marin Montoya

**Materia:** SISTEMAS OPERATIVOS MOVILES Y EMBEBIDOS

**Carrera:** Ing. de Sistemas

**Docente:** Ing. WILLIAM RODDY BARRA

**Cochabamba-Bolivia**

## **1. INTRODUCCIÓN**

Obteniendo todo lo aprendido en las clases de Android se decidió realizar una calculadora científica el cual contenga todo lo aprendido, con la utilización de adapters, fragments y activities para la creación de un Onboarding.

El manejo de java es muy importante ya que Android maneja esta lógica para la creación de la calculadora científica.

## **2. OBJETIVOS**

### **2.1 Objetivo General**

- Demostrar los conocimientos adquiridos de la materia SOME

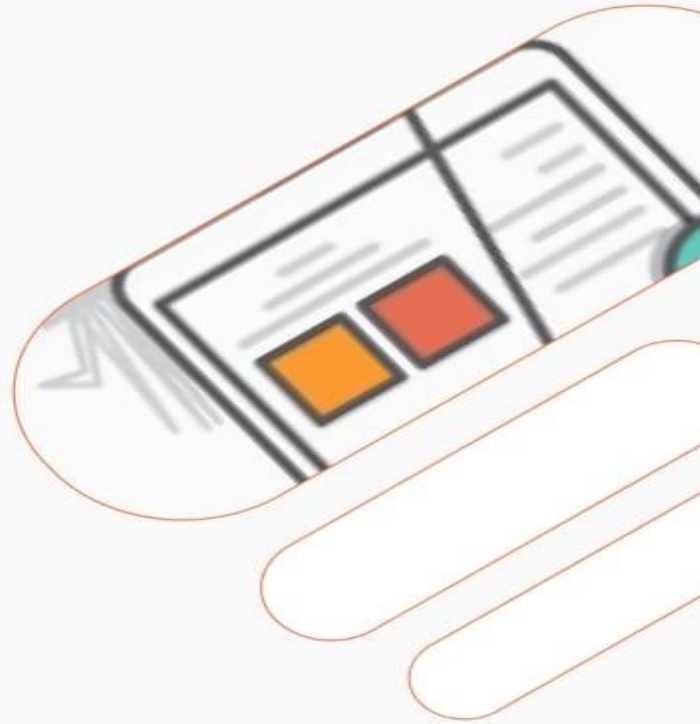
### **2.2 Objetivos Específicos**

- Crear un Onboarding
- Crear un Login
- Crear una Calculadora Científica

## **3. DESARROLLO**

### **3.1 Diseño Onboarding**

## Hito3\_JohanAlejandroMarinMontoya



## SOME

**Manejo de events, Functions,  
activities y navegacion entre screens**

SKIP

Next



```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    tools:context=".Onboarding.FragmentInicio1"
    android:orientation="vertical"
    >

    <ImageView
        android:id="@+id/imgWelcome"
        android:layout_width="600dp"
        android:layout_height="400dp"

        android:src="@drawable/img1" />

    <TextView
        android:id="@+id/textTitle1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="40dp"
        android:fontFamily="@font/aclonica"
        android:gravity="center"
        android:text="@string/some"
        android:textColor="@color/colorOrange"
        android:textSize="28sp" />
    <TextView
        android:id="@+id/textDesc1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="@string/texto1"
        android:textSize="18sp"
        android:textColor="@color/colorOrange"
        android:gravity="center"
        android:fontFamily="@font/aclonica"/>

    <LinearLayout
        android:id="@+id/layoutNext"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="horizontal">

        <Button
            android:id="@+id/btnLogin"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginHorizontal="2dp"
            android:layout_marginTop="145dp"
            android:background="@drawable/estilosbotonskip"
            android:text="@string/skip"
            android:textColor="@color/colorWhite">

        </Button>

        <TextView
            android:id="@+id/textNextWelcome"
            android:layout_width="271dp"
            android:layout_height="wrap_content"

```

```
android:layout_gravity="bottom|end"
android:layout_marginEnd="8dp"
android:layout_marginBottom="2dp"
android:layout_weight="1"
android:clickable="true"
android:focusable="true"
android:fontFamily="@font/acronica"
android:gravity="bottom|end"
android:text="@string/next"
android:textColor="@color/colorOrange"
android:textSize="20sp" />
```

```
</LinearLayout>
```

```
</LinearLayout>
```

<?xml version="1.0" encoding="utf-8"?>



```

<LinearLayout 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"
    tools:context=".Onboarding.FragmentInicio1"
    android:orientation="vertical"
    >

    <ImageView
        android:id="@+id/imgWelcome"
        android:layout_width="600dp"
        android:layout_height="400dp"

        android:src="@drawable/img2" />

    <TextView
        android:id="@+id/textTitle1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="40dp"
        android:fontFamily="@font/aclonica"
        android:gravity="center"
        android:text="@string/defensa"
        android:textColor="@color/colorOrange"
        android:textSize="28sp" />
    <TextView
        android:id="@+id/textDesc1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_marginTop="20dp"
        android:text="@string/texto2"
        android:textSize="18sp"
        android:textColor="@color/colorOrange"
        android:gravity="center"
        android:fontFamily="@font/aclonica"/>

    <LinearLayout
        android:id="@+id/layoutNext"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:orientation="horizontal">

        <Button
            android:id="@+id/btnSkip"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginHorizontal="2dp"
            android:layout_marginTop="145dp"
            android:background="@drawable/estilosbotonskip"
            android:text="@string/skip"
            android:textColor="@color/colorWhite">

        </Button>

        <TextView
            android:id="@+id/textnetxt"
            android:layout_width="271dp"
            android:layout_height="wrap_content"
            android:layout_gravity="bottom|end"

```

```
android:layout_marginEnd="8dp"
android:layout_marginBottom="2dp"
android:layout_weight="1"
android:clickable="true"
android:focusable="true"
android:fontFamily="@font/acronica"
android:gravity="bottom|end"
android:text="@string/next"
android:textColor="@color/colorOrange"
android:textSize="20sp" />
```

```
</LinearLayout>
```

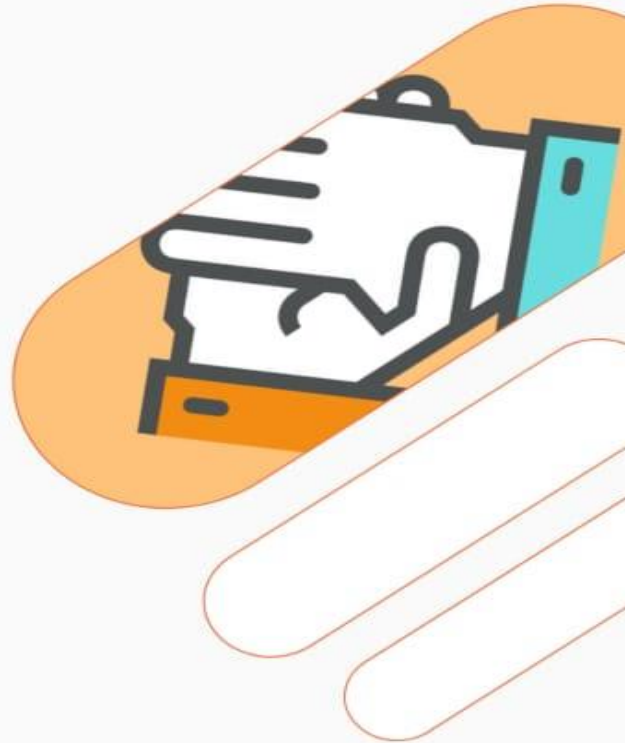
```
</LinearLayout>
```



22:56

90%

Hito3\_JohanAlejandroMarinMontoya



**Basico**

DESC

SELECT

**Cientifica**

DESC

SELECT

**Custom**

DESC

SELECT

Select Up

Username

SELECT



```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    tools:context=".Onboarding.FragmentInicio1"
    android:orientation="vertical"
    >

    <ImageView
        android:id="@+id/imgWelcome"
        android:layout_width="600dp"
        android:layout_height="400dp"

        android:src="@drawable/img3" />

    <LinearLayout

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:orientation="horizontal">
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginRight="30dp"
            android:fontFamily="@font/aclonica"
            android:gravity="center"
            android:layout_marginLeft="40dp"
            android:text="@string/basica"
            android:textColor="@color/colorOrange"
            android:textSize="20dp" />
        <Button
            android:id="@+id/btndesc1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:background="@drawable/estilosbotonskip"
            android:fontFamily="@font/aclonica"
            android:text="@string/desc"
            android:textColor="@color/colorWhite">

        </Button>
        <Button
            android:id="@+id/btnSelect1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_marginLeft="20dp"
            android:background="@drawable/estilosbotonskip"
            android:fontFamily="@font/aclonica"
            android:text="@string/select"
            android:textColor="@color/colorWhite">

        </Button>

```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/aclonica"
        android:gravity="center"
        android:layout_marginLeft="40dp"
        android:text="@string/Cientifica"
        android:textColor="@color/colorOrange"
        android:textSize="20dp" />
    <Button
        android:id="@+id/btndesc2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="20dp"
        android:background="@drawable/estilosbotonskip"
        android:fontFamily="@font/aclonica"
        android:text="@string/desc"
        android:textColor="@color/colorWhite">
```

```
</Button>
```

```
<Button
    android:id="@+id/btnSelect2"
    android:layout_width="wrap_content"
    android:layout_height="37dp"
    android:layout_marginLeft="20dp"
    android:background="@drawable/estilosbotonskip"
    android:fontFamily="@font/aclonica"
    android:text="@string/select"
    android:textColor="@color/colorWhite">
```

```
</Button>
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:orientation="horizontal">
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:fontFamily="@font/aclonica"
        android:gravity="center"
        android:layout_marginLeft="40dp"
        android:layout_marginRight="25dp"
        android:text="@string/Custom"
```

```

        android:textColor="@color/colorOrange"
        android:textSize="20dp" />
<Button
    android:id="@+id/btndesc3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="20dp"
    android:background="@drawable/estilosbotonskip"
    android:fontFamily="@font/aclonica"
    android:text="@string/desc"
    android:textColor="@color/colorWhite">

</Button>
<Button
    android:id="@+id/btnSelect3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="20dp"
    android:background="@drawable/estilosbotonskip"
    android:fontFamily="@font/aclonica"
    android:text="@string/select"
    android:textColor="@color/colorWhite">

</Button>

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="vertical">

    <EditText
        android:id="@+id/selectup"
        android:layout_width="match_parent"
        android:layout_height="44dp"
        android:layout_gravity="center"
        android:layout_marginLeft="30dp"
        android:layout_marginTop="10dp"
        android:layout_marginRight="30dp"
        android:background="@drawable/estilos_edittext"
        android:fontFamily="@font/aclonica"
        android:textAlignment="center"
        android:text="@string/selectup"
        android:textColor="@color/colorOrange">

    </EditText>
    <EditText
        android:id="@+id/etusername"
        android:layout_width="match_parent"
        android:layout_height="44dp"
        android:layout_gravity="center"
        android:layout_marginLeft="30dp"
        android:layout_marginTop="10dp"
        android:layout_marginRight="30dp"

```

```
        android:background="@drawable/estilos_edittext"
        android:fontFamily="@font/aclonica"
        android:textAlignment="center"
        android:text="@string/username"
        android:textColor="@color/colorOrange">

</EditText>
<Button
    android:id="@+id/btniniciar"
    android:layout_width="200dp"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    android:layout_gravity="center"
    android:background="@drawable/estilosbotonskip"
    android:fontFamily="@font/aclonica"
    android:text="@string/select"
    android:textColor="@color/colorWhite">

</Button>

</LinearLayout>

</LinearLayout>
```

### 3.2 Diseño Calculadora

23:17

89%

Hito3\_JohanAlejandroMarinMontoya

$\sqrt{\phantom{x}}$	COS	SEN	TNG
7	8	+/-	FAC
9	4	C	BORRAR
5	6	-	+
1	2	/	X
3	0	.	%
SHIFT		=	



```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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=".Calculadoras.CalculadoraCientifica">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_marginTop="40dp"
        android:orientation="vertical"
        >
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"

            android:textSize="30dp"
            />
        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"

            android:textSize="30dp"
            />
        <EditText
            android:id="@+id/caja"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_margin="27dp"

            android:gravity="center"
            android:padding="15dp"
            android:textColor="#000000"
            android:background="@drawable/estilos_edittext"
            android:textSize="20sp" />

    ////////// layout primera fila
    <LinearLayout
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="10dp"
        >
        <Button
            android:id="@+id/raiz"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="√"
            android:background="@drawable/estilosbotonskip">

    </Button>

    <Button
        android:id="@+id/cos"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```

```

        android:text="COS"
        android:background="@drawable/estilosbotonskip"
    ></Button>

    <Button
        android:id="@+id/senn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="SEN"
        android:textSize="13sp"
        android:background="@drawable/estilosbotonskip"

        />
    <Button
        android:id="@+id/tng"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="TNG"
        android:background="@drawable/estilosbotonskip"

        />
</LinearLayout>/////fin layout primera fila

//////////layout2
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    >

    <Button
        android:id="@+id/b7"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="7"
        android:background="@drawable/estilosbotonskip"
        />
    <Button
        android:id="@+id/b8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="@drawable/estilosbotonskip"
        android:text="8"
        />

    <Button
        android:id="@+id/cm"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="+/-"
        android:background="@drawable/estilosbotonskip"
        />

    <Button
        android:id="@+id/facc"

```



```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="FAC"
        android:background="@drawable/estilosbotonskip"

    />
</LinearLayout>

////////fin layout2

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp">
    <Button
        android:id="@+id/b9"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="9"
        android:background="@drawable/estilosbotonskip"
    />
    <Button
        android:id="@+id/b4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="4"
        android:background="@drawable/estilosbotonskip"

    />

    <Button
        android:id="@+id/editlimpiar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:background="@drawable/estilosbotonskip"
        android:text="C" />

    <Button
        android:id="@+id/btborrar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="borrar"
        android:background="@drawable/estilosbotonskip"
    />

</LinearLayout>

```

```

////layout tercera fila fila
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    >

    <Button
        android:id="@+id/b5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="5"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/b6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="6"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/editres"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="-"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/editsum"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="+"
        android:background="@drawable/estilosbotonskip"/>
</LinearLayout>////fin layout tercera fila fila

```

```

////layout cuarta fila
<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    >
    <Button
        android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="1"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/b2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="2"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/editdiv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"

```

```

        android:text="/"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/editmul"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="X"
        android:background="@drawable/estilosbotonskip"/>

</LinearLayout>/////fin cuarta fila

```

```

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp"
    >

    <Button
        android:id="@+id/b3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="3"
        android:background="@drawable/estilosbotonskip"/>
    <Button
        android:id="@+id/b0"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="0"
        android:background="@drawable/estilosbotonskip"/>

    <Button
        android:id="@+id/punto"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="."
        android:background="@drawable/estilosbotonskip"/>

    <Button
        android:id="@+id/porcentaje"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="%"
        android:background="@drawable/estilosbotonskip"/>
</LinearLayout>

```

//////////layout 5ta fila

```

<LinearLayout
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginTop="10dp" >
    <Button
        android:id="@+id/btnshift"
        android:layout_width="180dp"
        android:layout_height="wrap_content"
        android:text="SHIFT"
        android:background="@drawable/estilosbotonskip"/>

```

```

        <Button
            android:id="@+id/editigual"
            android:layout_width="180dp"
            android:layout_height="wrap_content"
            android:text="="
            android:background="@drawable/estilosbotonskip"/>
    </LinearLayout>/////fin yayout 5ta fila

</LinearLayout>//////////fin

</RelativeLayout>

```

### 3.3 Logica de la Calculadora

4. **package** com.e.hito3\_johanalejandromarinmontoya.Calculadoras;

```

import android.os.Bundle;
import android.widget.Button;
import android.widget.EditText;
import android.view.View;

```

```

import com.e.hito3_johanalejandromarinmontoya.R;

```

```

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 CalculadoraCientifica extends AppCompatActivity {
    private boolean E0=false;
    private EditText pantalla;
    private Button b1,b2,b3,b4,b5,b6,b7,b8,b9,b0;
    private Button suma,resta,mul,divi,igu;
    private Button punto, porsen, cm, facc,
    C,senn,tng,raiz,cos,shift, borrar;
    private double aux1=0,aux2=0;
    private String aux3="";
    private char letra;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_calculadora_cientifica);

        _initialize();
        _addClickDoneAndPrev();
    }
    public void _initialize() {

```

```

senn=(Button)findViewById(R.id.senn);
tng=(Button)findViewById(R.id.tng);
raiz=(Button)findViewById(R.id.raiz);
cos =(Button)findViewById(R.id.cos);

borrar= (Button) findViewById(R.id.btborrar);
punto = (Button) findViewById(R.id.punto);
porsen= (Button) findViewById(R.id.porcentaje);
cm= (Button) findViewById(R.id.cm);
facc= (Button) findViewById(R.id.facc);

b0=(Button)findViewById(R.id.b0);
b1=(Button)findViewById(R.id.b1);
b2=(Button)findViewById(R.id.b2);
b3=(Button)findViewById(R.id.b3);
b4=(Button)findViewById(R.id.b4);
b5=(Button)findViewById(R.id.b5);
b6=(Button)findViewById(R.id.b6);
b7=(Button)findViewById(R.id.b7);
b8=(Button)findViewById(R.id.b8);
b9=(Button)findViewById(R.id.b9);

suma=(Button)findViewById(R.id.editsum);
resta=(Button)findViewById(R.id.editres);
mul=(Button)findViewById(R.id.editmul);
divi=(Button)findViewById(R.id.editdiv);
igu=(Button)findViewById(R.id.editigual);

pantalla=(EditText)findViewById(R.id.caja);
C=(Button)findViewById(R.id.editlimpiar);

senn=(Button)findViewById(R.id.senn);
tng=(Button)findViewById(R.id.tng);
raiz=(Button)findViewById(R.id.raiz);
cos =(Button)findViewById(R.id.cos);

shift=(Button)findViewById(R.id.btnshift);
}
public void _addClickDoneAndPrev() {
    b0.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {

            aux3=pantalla.getText().toString();
            aux3+=0;
            pantalla.setText(aux3);
        }
    });
    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            aux3=pantalla.getText().toString();
            aux3+=1;
            pantalla.setText(aux3);
        }
    });
}

```

```

});
b2.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=2;
        pantalla.setText(aux3);
    }
});
b3.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=3;
        pantalla.setText(aux3);
    }
});
b4.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=4;
        pantalla.setText(aux3);
    }
});
b5.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=5;
        pantalla.setText(aux3);
    }
});
b6.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=6;
        pantalla.setText(aux3);
    }
});
b7.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=7;
        pantalla.setText(aux3);
    }
});
b8.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux3=pantalla.getText().toString();
        aux3+=8;
        pantalla.setText(aux3);
    }
});
b9.setOnClickListener(new View.OnClickListener() {
    @Override

```

```

        public void onClick(View v) {
            aux3=pantalla.getText().toString();
            aux3+=9;
            pantalla.setText(aux3);
        }
    });

    punto.setOnClickListener(new View.OnClickListener(){
        public void onClick(View v){
            aux3 = pantalla.getText().toString();
            aux3 =aux3 + ".";
            pantalla.setText(aux3);
        }
    });

    porsen.setOnClickListener(new View.OnClickListener()
    {
        public void onClick(View v){

aux1=Double.parseDouble(pantalla.getText().toString());
            pantalla.setText("");
            letra='s';
        }
    });

    cm.setOnClickListener(new View.OnClickListener()
    {
        public void onClick(View v){
            aux3 = pantalla.getText().toString();
            aux3 =aux3 + "1";
            aux2 =
Double.parseDouble(pantalla.getText().toString())* (-1);
            pantalla.setText(String.valueOf(aux2));
        }
    });

```

```

    suma.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {

            if(aux1==0)
            {

aux1=Double.parseDouble(pantalla.getText().toString());
            }
            else
            {

aux1+=Double.parseDouble(pantalla.getText().toString());
            }
            pantalla.setText("");
            letra='+';

```

```

    }
});
resta.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {

        if(aux1==0)
        {

aux1=Double.parseDouble(pantalla.getText().toString());

        }
        else
        {
            aux1-
=Double.parseDouble(pantalla.getText().toString());
        }
        pantalla.setText("");
        letra='-';
    }
});
mul.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {

        if(aux1==0)
        {

aux1=Double.parseDouble(pantalla.getText().toString());
        }
        else
        {aux1*=Double.parseDouble(pantalla.getText().toString()); }
        pantalla.setText("");
        letra='*';
    }
});
divi.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(aux1==0)
        {

aux1=Double.parseDouble(pantalla.getText().toString());
        }
        else
        {

aux1/=Double.parseDouble(pantalla.getText().toString());
        }
        pantalla.setText("");
        letra='/';
    }
});
C.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        aux1=0;
        aux2=0;
    }
});

```



```

        aux3="";
        letra=' ';
        pantalla.setText("");
    }
});
borrar.setOnClickListener(new View.OnClickListener(){
    public void onClick(View v){
        if(aux3.length()>0)
        {
            aux3 =pantalla.getText().toString();

            aux3 = aux3.substring(0,aux3.length()-1);
            pantalla.setText(aux3);}
    }
});

facc.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        double x,x2=1;
        x=Double.parseDouble(pantalla.getText().toString());
        for(int i=1;i<=x;i++)
        { x2*=i; }
        pantalla.setText(""+x2);
    }
});

igu.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
aux2=Double.parseDouble(pantalla.getText().toString());
        pantalla.setText("");
        switch (letra)
        {
            case '+': {
                pantalla.setText(""+ (aux1+aux2));
                break;
            }
            case '-': {
                pantalla.setText(""+ (aux1-aux2));
                break;
            }
            case '*': {
                pantalla.setText(""+ (aux1*aux2));
                break;
            }
            case '/':
            {
                pantalla.setText(""+ (aux1/aux2));
                break;
            }
            case 's':
            {
                pantalla.setText(""+(aux2*aux1)/100);
                break;
            }
            case 'x':
            {

```

```

        pantalla.setText(""+(Math.pow(aux1,aux2)));
        break;
    }

    }

});

shift.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        if(E0==false)
        {
            raiz.setText("X^");
            cos.setText("COS-1");
            senn.setText("SEN-1");
            tng.setText("X^2");
            E0=true;
        }
        else
        {
            raiz.setText("√");
            cos.setText("COS");
            senn.setText("SEN");
            tng.setText("TNG");
            E0=false;
        }
    }
});

raiz.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        double x2;
        x2=Double.parseDouble(pantalla.getText().toString());
        if(E0==false)
        {
            pantalla.setText(""+(Math.sqrt(x2)));
        }
        else
        {
            aux1=Double.parseDouble(pantalla.getText().toString());
            pantalla.setText("");
            letra='x';
        }
    }
});

cos.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        double x,x2;
        x=Double.parseDouble(pantalla.getText().toString());
        if(E0==false)
        {
            pantalla.setText(""+(Math.cos(x)));
        }
        else
    }
});

```

```

        {
            x2=Math.cos(x);
            pantalla.setText(""+(Math.pow(x2,-1)));
        }
    }
});
tng.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        double x1;
        x1=Double.parseDouble(pantalla.getText().toString());
        if(E0==false)
        { pantalla.setText(""+(Math.tan(x1))); }
        else
        { pantalla.setText(""+(Math.pow(x1,2))); }
    }
});
senn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        double x,x2;
        x=Double.parseDouble(pantalla.getText().toString());
        if(E0==false)
        {
            pantalla.setText(""+(Math.sin(x)));
        }
        else
        {
            x2=Math.sin(x);
            pantalla.setText(""+(Math.pow(x2,-1)));
        }
    }
});
}
}
}

```

23:38

87%

Hito3\_JohanAlejandroMarinMontoya

2.34055012186162

X^\_

COS-1

SEN-1

X^2

7

8

+/-

FAC

9

4

C

BORRAR

5

6

-

+

1

2

/

X

3

0

.

%

SHIFT

=



23:38

87%

Hito3\_JohanAlejandroMarinMontoya

4.0

$X^{\_}$

$\cos^{-1}$

$\sin^{-1}$

$X^2$

7

8

$\pm$

FAC

9

4

C

BORRAR

5

6

-

+

1

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$\times$

3

0

.

%

SHIFT

=

## **5. CONCLUSIÓN**

Se pudo realizar con éxito la aplicación usando todos los conocimiento adquiridos.