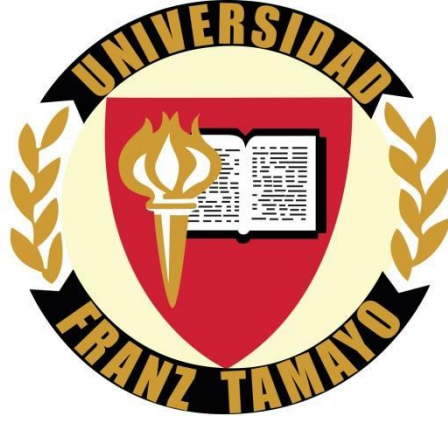


UNIVERSIDAD PRIVADA FRANZ TAMAYO
FACULTAD DE INGENIERÍA
CARRERA DE INGENIERÍA DE SISTEMAS



TAREA FINAL HITO3

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Cochabamba-Bolivia

2020

Introducción

Aplicando lo aprendido en las clases avanzadas del hito 3 de la materia de sistemas móviles y embebidos, se realizara la creación de un proyecto que contendrá un Onboarding que llevara a una ventana final o Fracment que contendrá el inicio del programa que es el login, al loguerce podrá entrar a lo que es la calculadora cientidica.

Objetivos

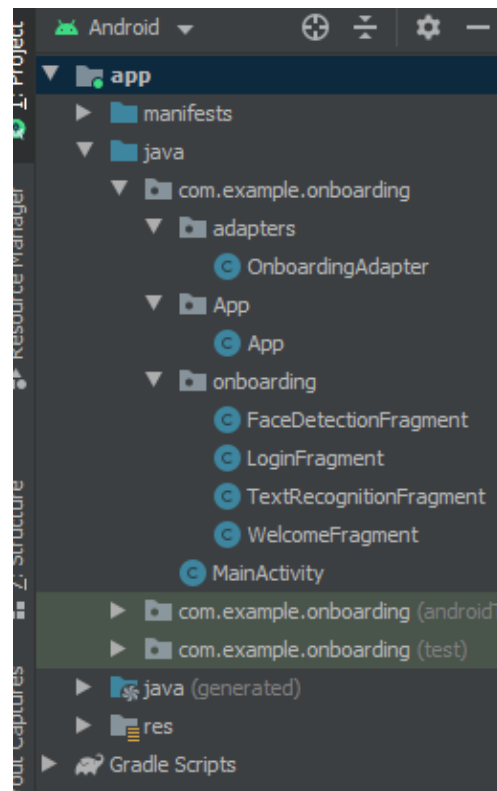
General

- Se creara un proyecto donde se implementara lo aprendido en clases, este contendrá el Onboarding, login y al final la calculadora científica

Específicos

- Crear los respectivos Fracments para realizar el cambio de ventana y asi dar forma al Onboarding
- Implementar métodos para el cambio de ventanas
- Aplicar diseño a cada Fracment para que se pueda visualizar en celulares o cualquier emulador.
- Al loguearse, este mismo mandara al usuario al Empty Activity App donde se encontrar la calculadora científica junto con sus estilos y funciones.

Estructura del proyecto



OnboardingAdapters

Este permitira poder saltar de fragments y mostrarlos primero antes del main activity.

```

package com.example.onboarding.adapters;

import androidx.annotation.NonNull;
import androidx.fragment.app.Fragment;
import androidx.fragment.app.FragmentManager;
import androidx.fragment.app.FragmentPagerAdapter;

import com.example.onboarding.onboarding.FaceDetectionFragment;
import com.example.onboarding.onboarding.LoginFragment;
import com.example.onboarding.onboarding.TextRecognitionFragment;
import com.example.onboarding.onboarding.WelcomeFragment;

public class OnboardingAdapter extends FragmentPagerAdapter {

    /*constructor*/
    public OnboardingAdapter(FragmentManager fm) {
        super(fm);
    }

    @NonNull
    @Override
    public Fragment getItem(int position) {
        switch (position){
            case 0:
                return new WelcomeFragment();
            case 1:
                return new TextRecognitionFragment();
            case 2:
                return new FaceDetectionFragment();
            case 3:
                return new LoginFragment();
            default:
                return null;
        }
    }

    @Override
    public int getCount() {
        return 4;
    }
}

```

Main Activity

El main agarrara las posiciones del adapter y las mostrara primero

```

package com.example.onboarding;

import androidx.appcompat.app.AppCompatActivity;
import androidx.viewpager.widget.ViewPager;

import android.os.Bundle;

import com.example.onboarding.adapters.OnboardingAdapter;

```

```

public class MainActivity extends AppCompatActivity {

    private ViewPager viewPagerContainer;

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

        //initializeComponents
        _initializeComponents();

        //initializeAdapter
        _initializeFragmentAdapter();
    }

    public void _initializeComponents(){
        viewPagerContainer = findViewById(R.id.viewPagerContainer);
    }

    public void _initializeFragmentAdapter() {
        OnboardingAdapter adapter = new OnboardingAdapter(getSupportFragmentManager());
        viewPagerContainer.setAdapter(adapter);
    }
}

```

Activity main.xml

```

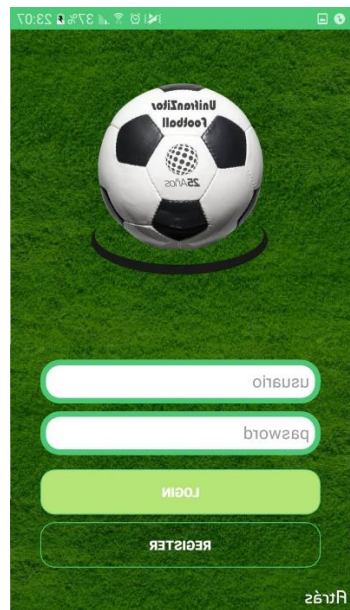
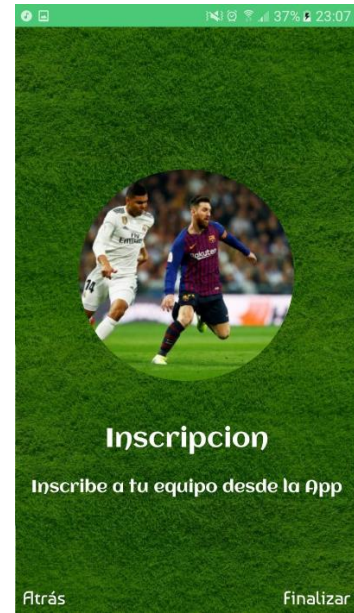
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    tools:context=".MainActivity">

    <androidx.viewpager.widget.ViewPager
        android:id="@+id/viewPagerContainer"
        android:layout_width="match_parent"
        android:layout_height="match_parent">
    </androidx.viewpager.widget.ViewPager>

</LinearLayout>

```

Us1



Stylos

Botones

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
<solid android:color="@color/colorAccent"></solid>
    <corners android:radius="15dp"></corners>
    <stroke android:width="1dp" android:color="@color/colorPrimary"></stroke>
</shape>

```

Boton registro

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
<solid android:color="@color/colorAccent"></solid>
    <corners android:radius="15dp"></corners>
    <stroke android:width="1dp" android:color="@color/colorPrimary"></stroke>
</shape>

```

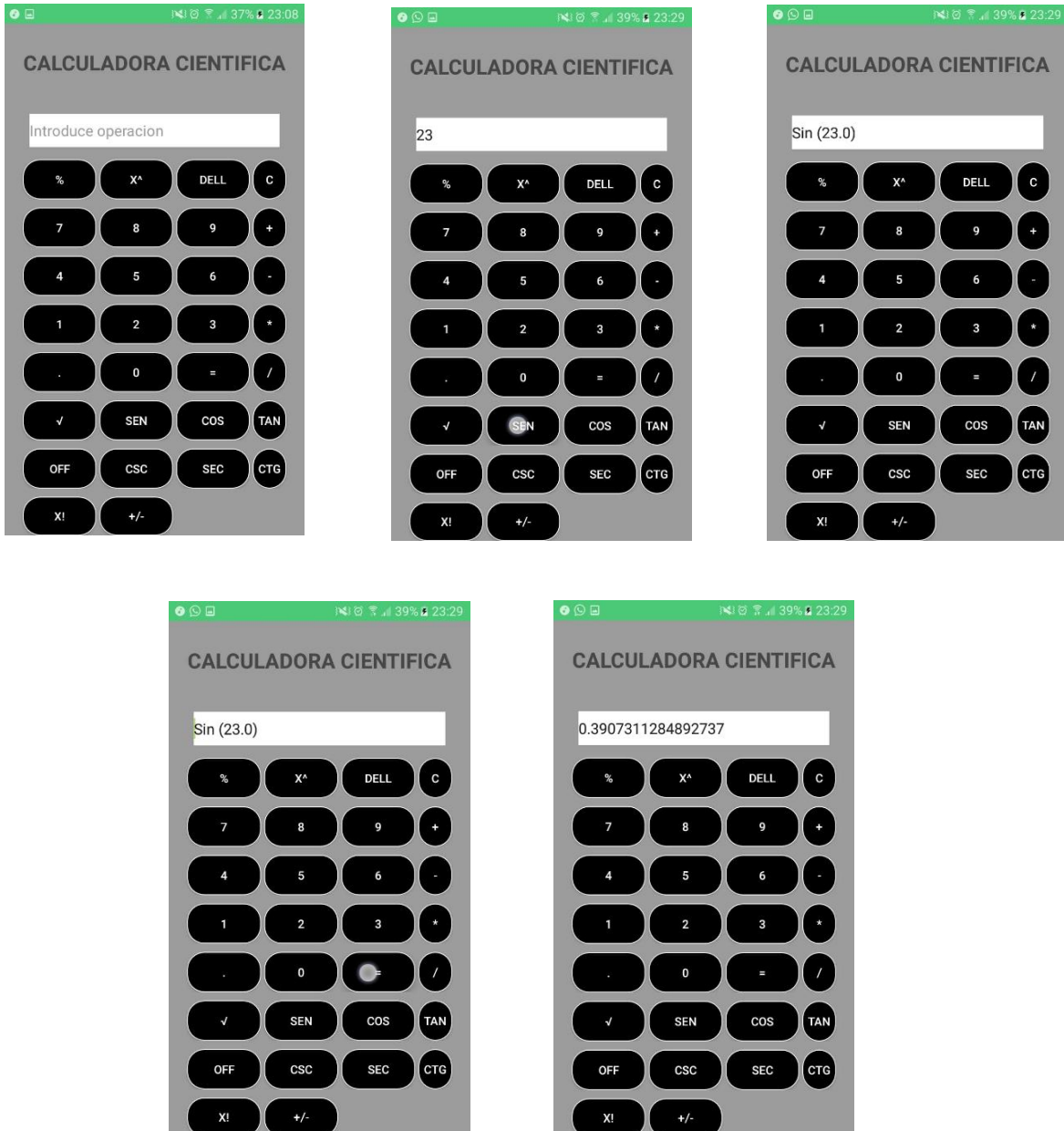
Editext

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="@color/colorWhite"></solid>
    <corners android:radius="18dp" ></corners>
    <stroke android:width="6dp" android:color="@color/colorPrimary"></stroke>
    <padding android:left="12dp" android:top="10dp" android:right="10dp"
android:bottom="12dp"></padding>
</shape>

```

Us2



App.java

```
package com.example.onboarding.App;

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;
```



```

import com.example.onboarding.R;

public class App extends AppCompatActivity implements View.OnClickListener{
    public EditText intro1;
    public double op1,op2,respuesta;
    int op;
    public Button btn0,btn1,btn2,btn3,btn4,btn5,btn6,btn7,btn8,btn9,btnpot,
        btnraiz,btnsen,btncos,btntang,btnoff,btncsc,btnsec,btnctg,btnfac,btnmasmenos,
        btnpors,btndell,btnsum,btnres,btnmul,btndiv,btnpunt,btnigual,btnclear;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_app);
        intro1=(EditText) findViewById(R.id.etc01);
        initializeVariables();
    }
    public void initializeVariables() {
        btn0 = findViewById(R.id.btn0);
        btn0.setOnClickListener(this);
        btn1 = findViewById(R.id.btn1);
        btn1.setOnClickListener(this);
        btn2 = findViewById(R.id.btn2);
        btn2.setOnClickListener(this);
        btn3 = findViewById(R.id.btn3);
        btn3.setOnClickListener(this);
        btn4 = findViewById(R.id.btn4);
        btn4.setOnClickListener(this);
        btn5 = findViewById(R.id.btn5);
        btn5.setOnClickListener(this);
        btn6 = findViewById(R.id.btn6);
        btn6.setOnClickListener(this);
        btn7= findViewById(R.id.btn7);
        btn7.setOnClickListener(this);
        btn8= findViewById(R.id.btn8);
        btn8.setOnClickListener(this);
        btn9 = findViewById(R.id.btn9);
        btn9.setOnClickListener(this);
        btnpot = findViewById(R.id.btnPot);
        btnpot.setOnClickListener(this);
        btnpors = findViewById(R.id.btnPors);
        btnpors.setOnClickListener(this);
        btnsum = findViewById(R.id.btnsum);
        btnsum.setOnClickListener(this);
        btnres = findViewById(R.id.btnres);
        btnres.setOnClickListener(this);
        btnmul = findViewById(R.id.btnmul);
        btnmul.setOnClickListener(this);
        btndiv = findViewById(R.id.btndiv);
        btndiv.setOnClickListener(this);
        btnpunt = findViewById(R.id.btnpunt);
        btnpunt.setOnClickListener(this);
        btnigual = findViewById(R.id.igu);
        btnigual.setOnClickListener(this);
        btnclear = findViewById(R.id.clear);
        btnclear.setOnClickListener(this);
        btndell = findViewById(R.id.btnDeLL);
    }
}

```



```

        btndell.setOnClickListener(this);
        btnraiz = findViewById(R.id.btnraiz);
        btnraiz.setOnClickListener(this);
        btnsen = findViewById(R.id.btnsen);
        btnsen.setOnClickListener(this);
        btncos = findViewById(R.id.btncos);
        btncos.setOnClickListener(this);
        btntang = findViewById(R.id.btntan);
        btntang.setOnClickListener(this);
        btnoff = findViewById(R.id.btnoff);
        btnoff.setOnClickListener(this);
        btncsc = findViewById(R.id.btncsc);
        btncsc.setOnClickListener(this);
        btnsec = findViewById(R.id.btnsec);
        btnsec.setOnClickListener(this);
        btnctg = findViewById(R.id.btnctg);
        btnctg.setOnClickListener(this);
        btnfac = findViewById(R.id.btnFac);
        btnfac.setOnClickListener(this);
        btnmasmenos = findViewById(R.id.btnmasomenos);
        btnmasmenos.setOnClickListener(this);
    }
    public void btn1 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"1";
        intro1.setText(cap);
    }
    public void btn2 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"2";
        intro1.setText(cap);
    }
    public void btn3 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"3";
        intro1.setText(cap);
    }
    public void btn4 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"4";
        intro1.setText(cap);
    }
    public void btn5 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"5";
        intro1.setText(cap);
    }
    public void btn6 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"6";
        intro1.setText(cap);
    }
    public void btn7 (View v){
        String cap= intro1.getText().toString();
        cap=cap+"7";
        intro1.setText(cap);
    }
}

```

```

public void btn8 (View v){
    String cap= intro1.getText().toString();
    cap=cap+"8";
    intro1.setText(cap);
}
public void btn9 (View v){
    String cap= intro1.getText().toString();
    cap=cap+"9";
    intro1.setText(cap);
}
public void btn0 (View v){
    String cap= intro1.getText().toString();
    cap=cap+"0";
    intro1.setText(cap);
}
public void btnpunt (View v){
    String cap= intro1.getText().toString();
    cap=cap+ ".";
    intro1.setText(cap);
}
public void suma(View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }
    catch(NumberFormatException nfe){};
    intro1.setText("");
    op=1;
}

public void resta(View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=2;
}
public void multiplicacion (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=3;
}
public void potencia (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=5;
}
public void masmenos(View v){
    try{
        String aux1= intro1.getText().toString();

```

```

        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=15;
}
public void porcentaje (View v) {
    try{ String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=6;
}

```

```

public void division (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=4;
}
public void raiz (View v) {
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText(" v(" +op1+"")");
    op=7;
}

```

```

public void sin (View v){
    try{ String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("Sin (" +op1+"")");
    op=8;
}

```

```

public void cos (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("Cos (" +op1+"")");
    op=9;
}

```

```

public void tan (View v){
    try{ String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("Tan (" +op1+"")");
    op=10;
}

```

```

public void csc (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("Csc (" +op1+"");
    op=11;
}

public void sec (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("Sec (" +op1+"");
    op=12;
}

public void ctg (View v){
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("Ctg (" +op1+"");
    op=13;
}

public void factorial (View v) {
    try{
        String aux1= intro1.getText().toString();
        op1= Double.parseDouble(aux1);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
    op=14;
}
public void clear (View v){
    intro1.setText("");
    op1=0.0;
    op2=0.0;
    respuesta=0.0;
}
public void dell (View v){
    if (!intro1.getText().toString().equals("")){
        intro1.setText(intro1.getText().subSequence(0,intro1.getText().length()-
1)+""");
    }
}
public void off (View v){
    finish();
}
public void igual (View v){
    try{
        String aux2= intro1.getText().toString();
        op2= Double.parseDouble(aux2);
    }catch(NumberFormatException nfe){};
    intro1.setText("");
}

```

```

if (op==1){
    respuesta=op1+op2;

}else if (op==2){
    respuesta=op1-op2;

}else if (op==3){
    respuesta=op1*op2;

}else if (op==4){
    if(op2==0){
        intro1.setText("Numero no se puede dividir para 0");
    }else{
        respuesta= op1/op2;
    }
}else if (op==5){
    respuesta=Math.pow(op1, op2);
}else if (op==6){
    respuesta=op2*(op1/100.0);
}else if (op==7){
    respuesta=Math.sqrt(op1);

}else if(op==8){
    double rad=Math.toRadians(op1);
    respuesta= (Math.sin(rad));

}else if(op==9){
    double rad=Math.toRadians(op1);
    respuesta= (Math.cos(rad));

}else if(op==10){
    double rad=Math.toRadians(op1);
    respuesta= (Math.tan(rad));

}else if(op==11){
    double angulo = (Math.asin(op1));
    respuesta=Math.toDegrees(angulo);

}else if(op==12){
    double angulo = (Math.acos(op1));
    respuesta=Math.toDegrees(angulo);

}else if(op==13){
    double angulo = (Math.atan(op1));
    respuesta=Math.toDegrees(angulo);

}else if (op==14){
    respuesta=1;
    for(double i=op1; i>=1; i--){
        respuesta=respuesta*i;
    }
}else if(op==15){
    respuesta=op1*-1;
}

intro1.setText(""+respuesta);

```

```
        op1=respuesta;
    }
}
```

```
@Override
```

```
public void onClick(View v) {
    switch (v.getId()){
        case R.id.btn0:
            btn0(intro1);
            break;
        case R.id.btn1:
            btn1(intro1);
            break;
        case R.id.btn2:
            btn2(intro1);
            break;
        case R.id.btn3:
            btn3(intro1);
            break;
        case R.id.btn4:
            btn4(intro1);
            break;
        case R.id.btn5:
            btn5(intro1);
            break;
        case R.id.btn6:
            btn6(intro1);
            break;
        case R.id.btn7:
            btn7(intro1);
            break;
        case R.id.btn8:
            btn8(intro1);
            break;
        case R.id.btn9:
            btn9(intro1);
            break;
        case R.id.btnsum:
            suma(intro1);
            break;
        case R.id.btnres:
            resta(intro1);
            break;
        case R.id.btnmul:
            multiplicacion(intro1);
            break;
        case R.id.btndiv:
            division(intro1);
            break;
        case R.id.btnpunt:
            btnpunt(intro1);
            break;
        case R.id.igu:
            igual(intro1);
            break;
        case R.id.clear:
            clear(intro1);
            break;
    }
}
```

```

        case R.id.btnDell:
            dell(intro1);
            break;
        case R.id.btnPot:
            potencia(intro1);
            break;
        case R.id.btnPors:
            porcentaje(intro1);
            break;
        case R.id.btnraiz:
            raiz(intro1);
            break;
        case R.id.btnsen:
            sin(intro1);
            break;
        case R.id.btncos:
            cos(intro1);
            break;
        case R.id.btntan:
            tan(intro1);
            break;
        case R.id.btnoff:
            off(intro1);
            break;
        case R.id.btncsc:
            csc(intro1);
            break;
        case R.id.btntsec:
            sec(intro1);
            break;
        case R.id.btnctg:
            ctg(intro1);
            break;
        case R.id.btnFac:
            factorial(intro1);
            break;
        case R.id.btnmasomenos:
            masmenos(intro1);
            break;
    }
}
}

```

Activity_app.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"
    tools:context=".App.App"
    android:background="@color/colorLead">

```



```

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center"
    android:orientation="vertical"
    android:padding="0dp"
>
    <TextView
        android:id="@+id/tv1"
        android:layout_marginTop="30dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginBottom="15dp"
        android:text="@string/epi"
        android:textSize="25sp"
        android:textStyle="bold"
    ></TextView>
    <EditText
        android:layout_marginTop="30dp"
        android:id="@+id/etco1"
        android:layout_width="300sp"
        android:layout_height="40sp"
        android:layout_marginBottom="5dp"
        android:background="@color/colorWhite"
        android:hint="@string/intro"
    />
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="10dp"
        android:layout_marginHorizontal="20sp">
        <Button
            android:id="@+id/btnPors"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/pors"
            android:layout_marginHorizontal="2dp"
            android:background="@drawable/stylo"
            android:textColor="@color/colorWhite"
        />
        <Button
            android:id="@+id/btnPot"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/pot"
            android:layout_marginHorizontal="2dp"
            android:background="@drawable/stylo"
            android:textColor="@color/colorWhite"
        />
        <Button
            android:id="@+id/btnDell"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/numDell"
            android:layout_marginHorizontal="2dp"

```

```

        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
<Button
    android:id="@+id/clear"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/clear"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>

</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">

    <Button
        android:id="@+id/btn7"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num7"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
    <Button
        android:id="@+id/btn8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num8"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
    <Button
        android:id="@+id/btn9"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num9"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
    <Button
        android:id="@+id/btnsum"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/sum"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

```

```

</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">

    <Button
        android:id="@+id/btn4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num4"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button
        android:id="@+id/btn5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num5"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button
        android:id="@+id/btn6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num6"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button
        android:id="@+id/btnres"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/res"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"/>

</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">

    <Button

```

```

        android:id="@+id/btn1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num1"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
<Button
    android:id="@+id/btn2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/num2"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>

<Button
    android:id="@+id/btn3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/num3"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>
<Button
    android:id="@+id/btnmul"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/multi"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>
</LinearLayout>

<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">

    <Button
        android:id="@+id/btnpunt"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/punt"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button

```

```

        android:id="@+id/btn0"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/num0"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button
        android:id="@+id/igu"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/igual"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button
        android:id="@+id/btndiv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/div"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">

    <Button
        android:id="@+id/btnraiz"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/raiz"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button
        android:id="@+id/btnsen"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/sen"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

    <Button

```

```
        android:id="@+id/btncos"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/cos"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
```

```
<Button
    android:id="@+id/btntan"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/tan"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>
```

</LinearLayout>

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">
```

```
<Button
    android:id="@+id/btnoff"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/off"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>
```

```
<Button
    android:id="@+id/btncsc"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/csc"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
/>
```

```
<Button
    android:id="@+id/btnsec"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/sec"
    android:layout_marginHorizontal="2dp"
    android:background="@drawable/stylo"
    android:textColor="@color/colorWhite"
```

```

        />
    <Button
        android:id="@+id/btnctg"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/ctg"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

</LinearLayout>
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginTop="10dp"
    android:layout_marginHorizontal="20sp">

    <Button
        android:id="@+id/btnFac"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/fac"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />
    <Button
        android:id="@+id/btnmasomenos"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="@string/masomenos"
        android:layout_marginHorizontal="2dp"
        android:background="@drawable/stylo"
        android:textColor="@color/colorWhite"
    />

</LinearLayout>

</LinearLayout>

</LinearLayout>

```

Stylo.xml

```

<?xml version="1.0" encoding="utf-8"?>
<shape xmlns:android="http://schemas.android.com/apk/res/android">
    <solid android:color="@color/colorblack" ></solid>
    <corners android:radius="20dp"></corners>
    <stroke android:width="1dp" android:color="@color/colorWhite"></stroke>

</shape>

```