



Instituto Politécnico Nacional  
ESCOM  
“Escuela Superior de Cómputo”



Application Development for Mobile Devices

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Tarea 3

Button

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Grupo: 3CM16

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## Ejemplo 1.

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent" >
    <TextView
        android:text="Eventos de Button\n\nDigite un botón...\n"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <Button
        android:text="Clase Interna (jbn1)"
        android:id="@+id/xbn1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <Button
        android:text="Clase Interna Anónima (jbn2)"
        android:id="@+id/xbn2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <Button
        android:text="Implanta una Interface (jbn3)"
        android:id="@+id/xbn3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <Button
        android:text="Invoca al método desde XML (jbn4)"
        android:id="@+id/xbn4"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:onClick="xbn4DesdeXML" />
</LinearLayout>
```

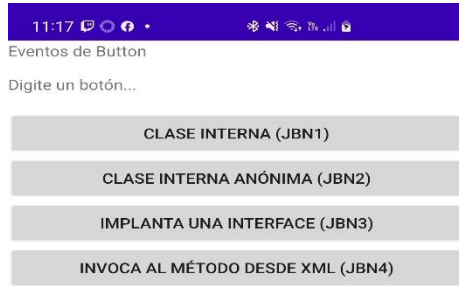
```

activity_main.xml x MainActivity.java x
package com.example.myapplication;

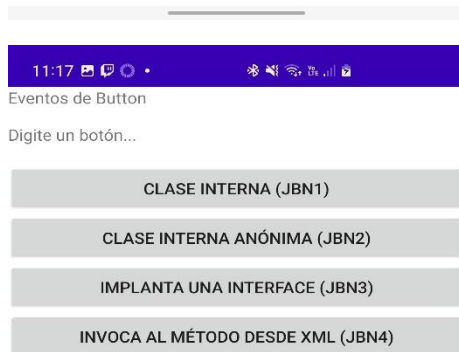
import android.app.Activity;
import android.os.Bundle;
import android.view.View;
import android.view.View.OnClickListener; // -1
import android.widget.*;

public class MainActivity extends Activity implements OnClickListener { // -2
    Button jbn1, jbn2, jbn3, jbn4;
    public void onCreate(Bundle b) {
        super.onCreate(b);
        setContentView(R.layout.activity_main);
        jbn1 = (Button) findViewById(R.id.xbn1); // MÉTODO 1
        jbn1.setOnClickListener(btn1Listener); // -3
        jbn2 = (Button) findViewById(R.id.xbn2); // MÉTODO 2
        jbn2.setOnClickListener(new OnClickListener() {
            public void onClick(View v) {
                showMessage(msg: "Botón digitado: xbn2\nUtiliza: new OnClickListener{}");
            }
        });
        jbn3 = (Button) findViewById(R.id.xbn3); // MÉTODO 3
        jbn3.setOnClickListener(this);
    }
    private OnClickListener btn1Listener = new OnClickListener() { // desde el MÉTODO 1
        public void onClick(View v) {
            showMessage(msg: "Botón digitado: xbn1\nUtiliza: clase btn1Listener");
        }
    };
    public void onClick(View v) { // -4 y -5
        showMessage(msg: "Botón digitado: xbn3\nUtiliza: implements OnClickListener.");
    }
    public void xbn4DesdeXML(View v) { // MÉTODO 4
        showMessage(msg: "Boton digitado: xbn4\nInvoca al método desde el XML.");
    }
    private void showMessage(String msg){
        Toast toast = Toast.makeText(context: this, msg, Toast.LENGTH_SHORT);
        toast.show();
    }
}

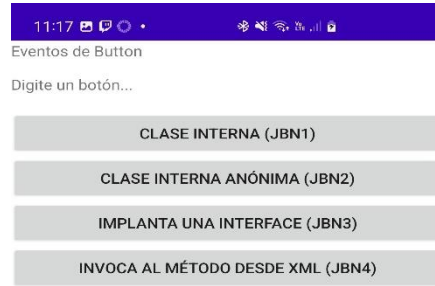
```



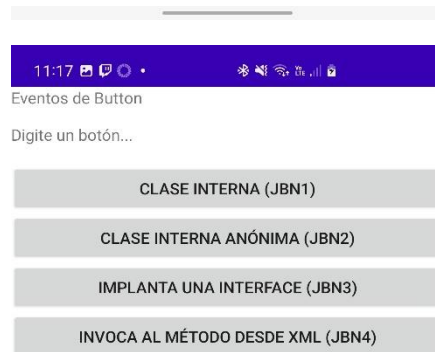
Botón digitado: xbn1  
Utiliza: clase btn1Listener



Botón digitado: xbn3  
Utiliza: implements OnClickListe...



Botón digitado: xbn2  
Utiliza: new OnClickListener{}

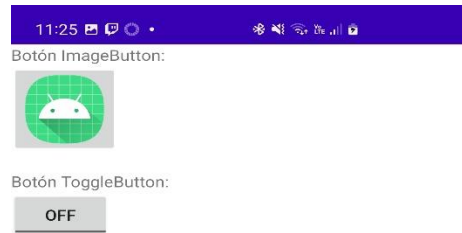


Boton digitado: xbn4  
Invoca al método desde el XML.

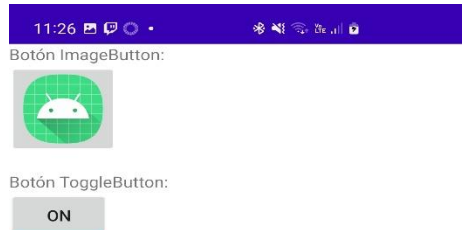
## Ejemplo 2.

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
    <TextView
        android:text="Botón ImageButton:"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <ImageButton
        android:id="@+id/xib1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:src="@mipmap/ic_launcher" />
    <TextView
        android:text="\nBotón ToggleButton:"
        android:layout_width="match_parent"
        android:layout_height="wrap_content" />
    <ToggleButton
        android:id="@+id/xtb1"
        android:textOn="ON"
        android:textOff="OFF"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content" />
</LinearLayout>
```

```
activity_main.xml x MainActivity.java x strings.xml x
1 package com.example.myapplication;
2
3 import android.app.Activity;
4 import android.os.Bundle;
5 import android.view.View;
6 import android.view.View.OnClickListener; // 1
7 import android.widget.*;
8 public class MainActivity extends Activity implements OnClickListener { // 2
9     ImageButton jib1;
10    ToggleButton jtb1;
11    public void onCreate(Bundle b) {
12        super.onCreate(b);
13        setContentView(R.layout.activity_main);
14        jib1 = (ImageButton) findViewById(R.id.xib1); jib1.setOnClickListener(this); // 3
15        jtb1 = (ToggleButton) findViewById(R.id.xtb1); jtb1.setOnClickListener(this);
16    }
17    public void onClick(View v) { // 4
18        if(v.getId()==R.id.xib1) // 5
19            showMessage(s: "Botón: ImageButton");
20        else {
21            if (jtb1.isChecked()) showMessage(s: "Botón: ToggleButton en ON");
22            else showMessage(s: "Botón: ToggleButton en OFF");
23        }
24    }
25    private void showMessage(String s){
26        Toast t = Toast.makeText(context: this, s, Toast.LENGTH_SHORT);
27        t.show();
28    }
29 }
30 |
```

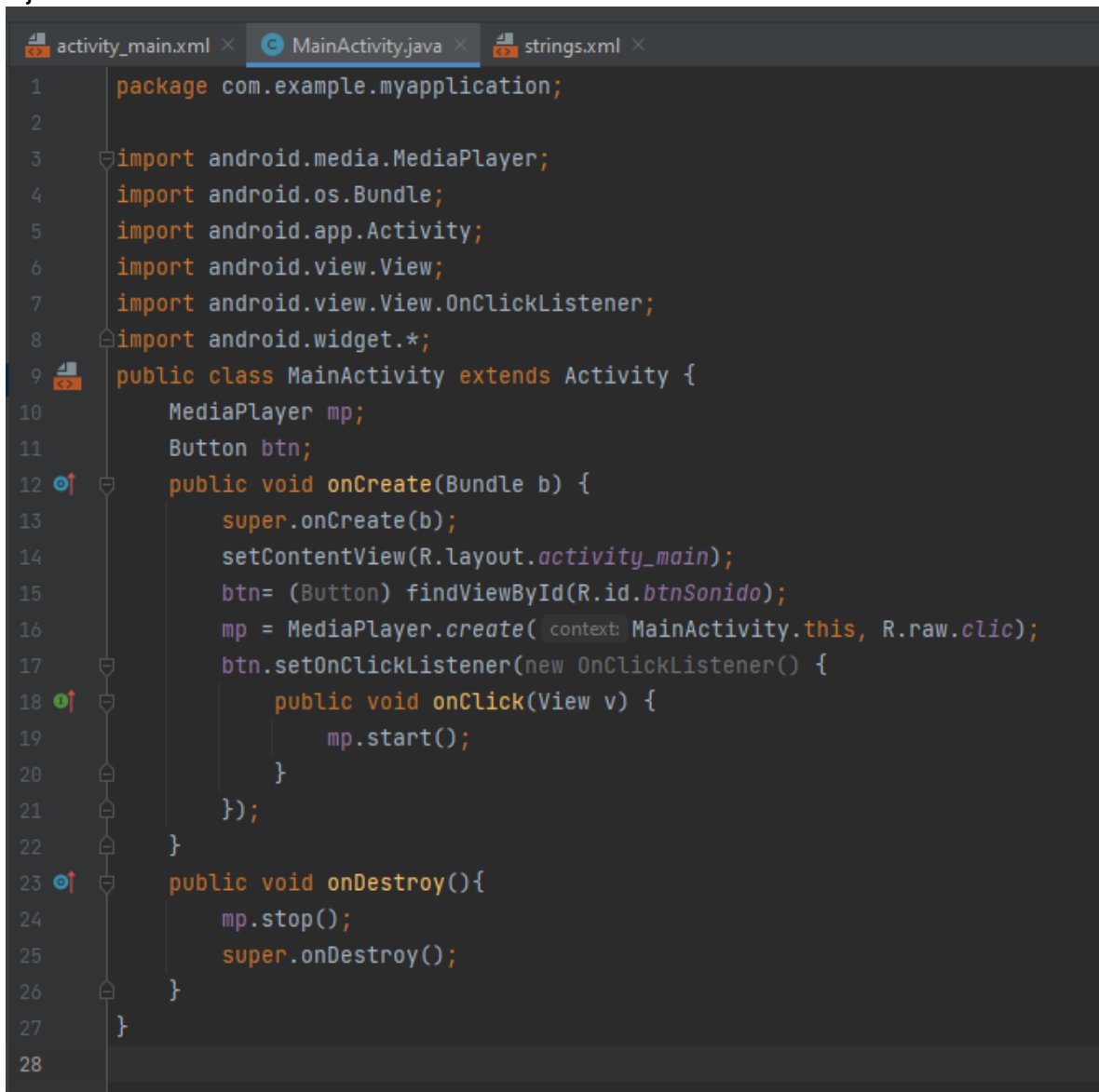


Botón: ImageButton



Botón: ToggleButton en ON

## Ejercicio 1.

The image shows a screenshot of the Android Studio code editor. At the top, there are three tabs: 'activity\_main.xml', 'MainActivity.java' (which is selected), and 'strings.xml'. The code in MainActivity.java is as follows:

```
1 package com.example.myapplication;
2
3 import android.media.MediaPlayer;
4 import android.os.Bundle;
5 import android.app.Activity;
6 import android.view.View;
7 import android.view.View.OnClickListener;
8 import android.widget.*;
9 public class MainActivity extends Activity {
10     MediaPlayer mp;
11     Button btn;
12     public void onCreate(Bundle b) {
13         super.onCreate(b);
14         setContentView(R.layout.activity_main);
15         btn= (Button) findViewById(R.id.btnSonido);
16         mp = MediaPlayer.create(context: MainActivity.this, R.raw.clic);
17         btn.setOnClickListener(new OnClickListener() {
18             public void onClick(View v) {
19                 mp.start();
20             }
21         });
22     }
23     public void onDestroy(){
24         mp.stop();
25         super.onDestroy();
26     }
27 }
28
```



```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical">
    <Button
        android:id="@+id/btnSonido"
        android:layout_width="250dp"
        android:layout_height="wrap_content"
        android:gravity="center"
        android:layout_gravity="center_horizontal"
        android:text="@string/btn_text" />
</LinearLayout>
```

11:43



SONIDO

## Ejercicio 2.

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent">
    <com.google.android.material.floatingactionbutton.FloatingActionButton
        android:id="@+id/xfab"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_gravity="bottom|end"
        android:src="@android:drawable/ic_dialog_email"
        android:layout_marginRight="64dp"
        android:layout_marginEnd="64dp"
        android:layout_marginBottom="131dp"
        android:layout_alignParentBottom="true"
        android:layout_alignParentRight="true"
        android:layout_alignParentEnd="true" />
    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Hola ESCOM!" />
</RelativeLayout>
```

```
activity_main.xml MainActivity.java strings.xml  
package com.example.myapplication;  
  
import android.app.Activity;  
import android.os.Bundle;  
import android.view.*;  
import android.widget.Toast;  
  
import com.google.android.material.floatingactionbutton.FloatingActionButton;  
  
public class MainActivity extends Activity {  
    FloatingActionButton jfab;  
    protected void onCreate(Bundle b) {  
        super.onCreate(b);  
        setContentView(R.layout.activity_main);  
        jfab = (FloatingActionButton) findViewById(R.id.xfab);  
        jfab.setOnClickListener(new View.OnClickListener() {  
            public void onClick(View view) {  
                Toast.makeText(context MainActivity.this, text "Soy un botón Flotante!",  
                    Toast.LENGTH_LONG).show();  
            }  
        });  
    }  
}
```

7:16

Hola ESCOM!



Soy un botón Flotante!

Programación gráfica de botones.

```
<?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=".MainActivity">

    <Button
        android:id="@+id/xbn"
        android:layout_width="151dp"
        android:layout_height="143dp"
        android:layout_centerInParent="true"
        android:background="@android:mipmap/sym_def_app_icon"
        android:text="Aceptar"
        android:textSize="20sp"
        app:backgroundTint="#DA0000" />
</RelativeLayout>
```

