

# Widgets básicos para el diseño de la Interfaz de Usuario

# Widgets

- Widgets: control gráfico que sirve para interactuar con el usuario
- Para recoger en tiempo de ejecución un widget usamos la función `findViewById(R.id.xxxx)` donde `xxxx` es el identificador usado en el fichero UI `*.xml`. La función devuelve una `View` sobre la que haremos un casting de la clase real

```
public class Hola extends Activity {
```

```
    @Override
```

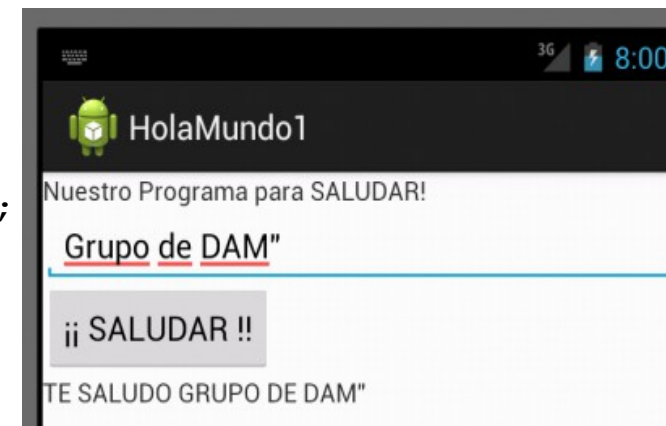
```
    protected void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_hola);
```

```
        final EditText miTexto= (EditText)findViewById(R.id.miTxt);  
        final Button miBoton= (Button)findViewById(R.id.miBtn);  
        final TextView elSaludo= (TextView)findViewById(R.id.miLbl);
```

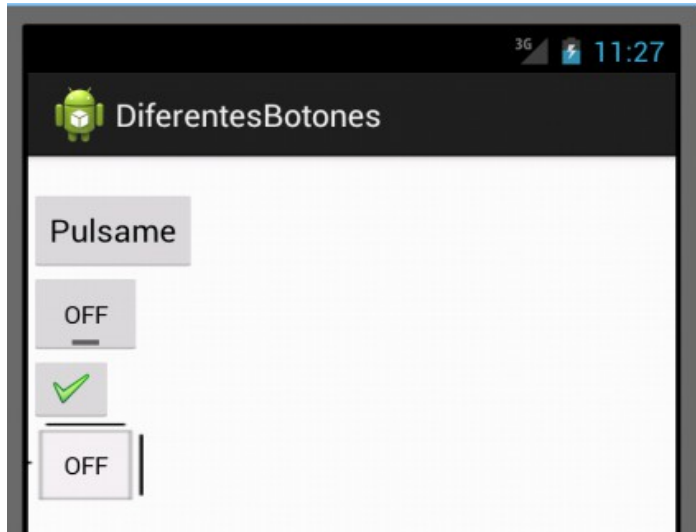
```
        miBoton.setOnClickListener( new View.OnClickListener() {  
            public void onClick(View v){  
                String mensajePaso= "Te saludo " + miTexto.getText();  
                elSaludo.setText(mensajePaso);  
            }  
        });  
    }
```

```
7      <TextView  
8          android:id="@+id/titulo"  
9          android:layout_width="fill_parent"  
10         android:layout_height="wrap_content"  
11         android:layout_margin="5dp"  
12         android:text="@string/nombre"  
13         android:textColor="#5F9120"  
14         android:textSize="20dp"  
15         android:textStyle="bold" />
```

```
17     <EditText  
18         android:id="@+id/TxtNombre"  
19         android:layout_width="fill_parent"  
20         android:layout_height="wrap_content"  
21         android:layout_margin="5dp"  
22         android:hint="Escribe tu Nombre"  
23         android:inputType="text" />
```



# Tipos de botones



```
<LinearLayout
  xmlns:android="http://schemas.android.com/apk/res/android"
  .....
  <TextView android:id="@+id/LblMensaje"
    android:layout_width="fill_parent"
    android:layout_height="wrap_content" />

  <Button android:id="@+id/BtnBoton1"
    android:text="Pulsame"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content" />

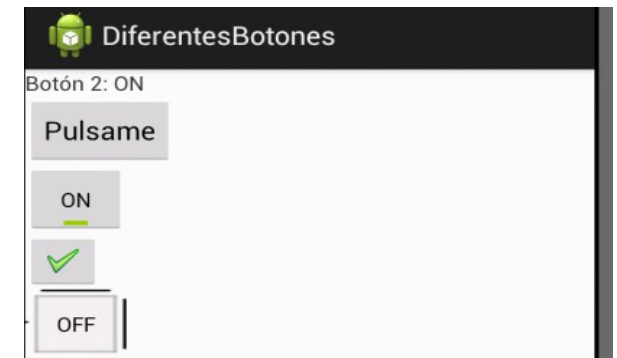
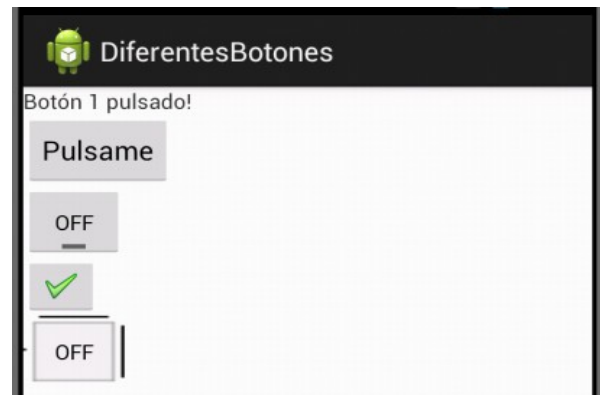
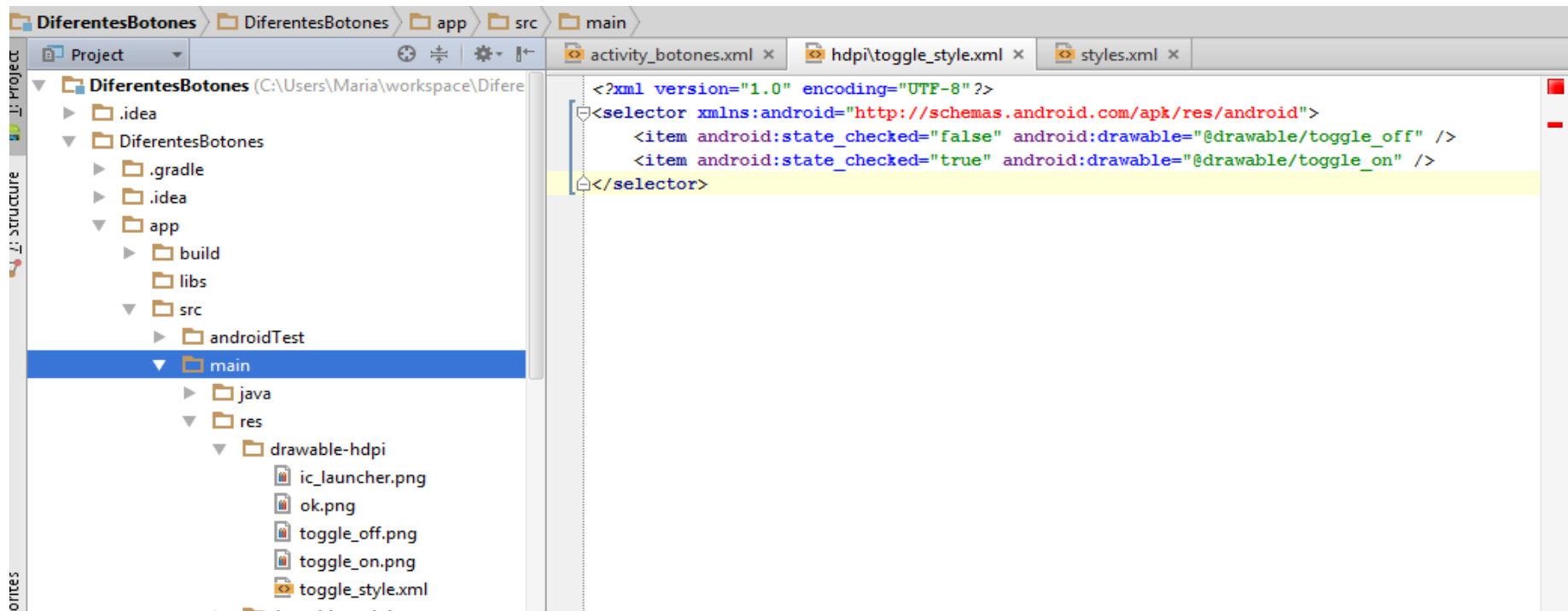
  <ToggleButton android:id="@+id/BtnBoton2"
    android:textOn="ON"
    android:textOff="OFF"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content" />

  <ImageButton android:id="@+id/BtnBoton3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:src="@drawable/ok" />

  <ToggleButton android:id="@+id/BtnBoton4"
    android:textOn="ON"
    android:textOff="OFF"
    android:padding="10dip"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:background="@drawable/toggle_style"/>

</LinearLayout>
```

# Tipos de botones

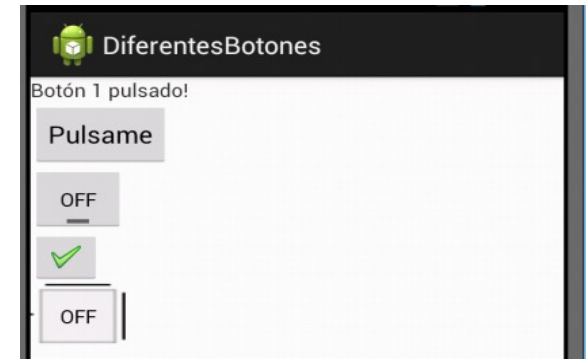


```

public class ActivityBotones extends Activity {
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_botones);

        final TextView lblMensaje = (TextView)findViewById(R.id.LblMensaje);
        final Button btnBoton1 = (Button)findViewById(R.id.BtnBoton1);

```



```

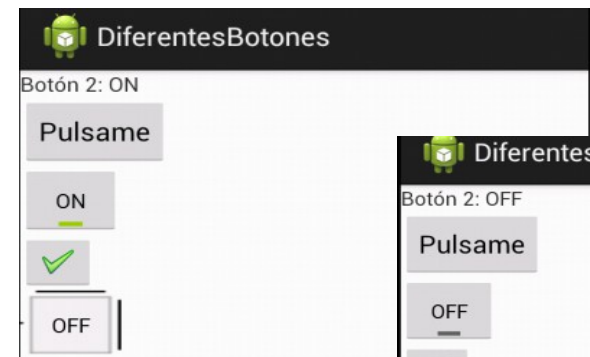
        btnBoton1.setOnClickListener(new View.OnClickListener() {
            public void onClick(View arg0)
            {
                lblMensaje.setText("Botón 1 pulsado!");
            }
        });

```

```

        final ToggleButton btnBoton2 = (ToggleButton)findViewById(R.id.BtnBoton2);
        btnBoton2.setOnClickListener(new View.OnClickListener() {
            public void onClick(View arg0)
            {
                if(btnBoton2.isChecked())
                    lblMensaje.setText("Botón 2: ON");
                else
                    lblMensaje.setText("Botón 2: OFF");
            }
        });

```



.....( continua la clase)

```
public class ActivityBotones .....(continuacion)
```

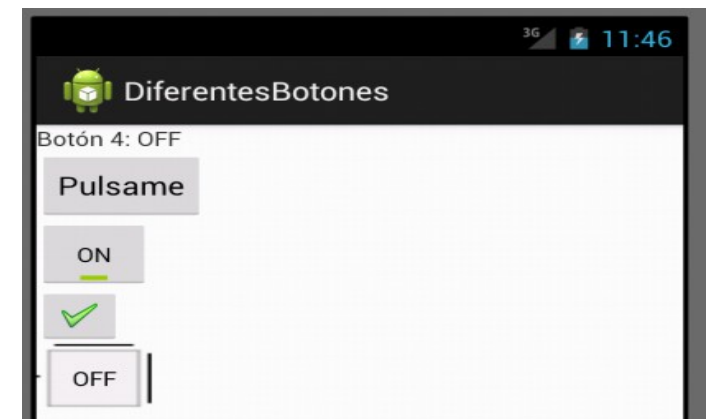
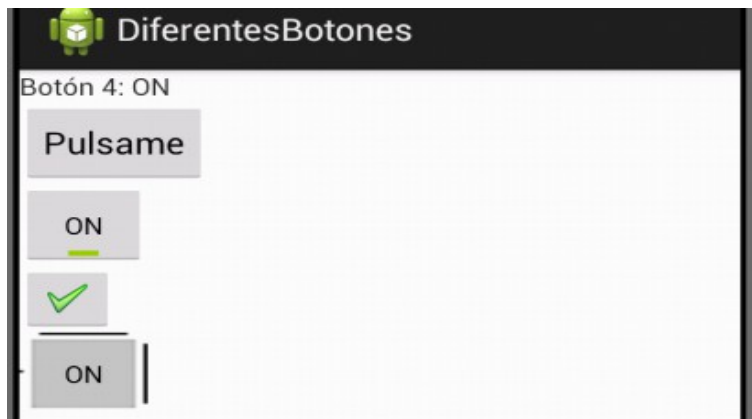
```
final ImageButton btnBoton3 = (ImageButton)findViewById(R.id.BtnBoton3);  
btnBoton3.setOnClickListener(new View.OnClickListener() {
```

```
    public void onClick(View arg0)  
    {  
        lblMensaje.setText("Botón 3 pulsado!");  
    }  
});
```

```
final ToggleButton btnBoton4 = (ToggleButton)findViewById(R.id.BtnBoton4);  
btnBoton4.setOnClickListener(new View.OnClickListener() {
```

```
    public void onClick(View arg0) {  
        if (btnBoton4.isChecked())  
            lblMensaje.setText("Botón 4: ON");  
        else  
            lblMensaje.setText("Botón 4: OFF");
```

```
    }  
});  
}
```



# Widgets básicos: CheckBox

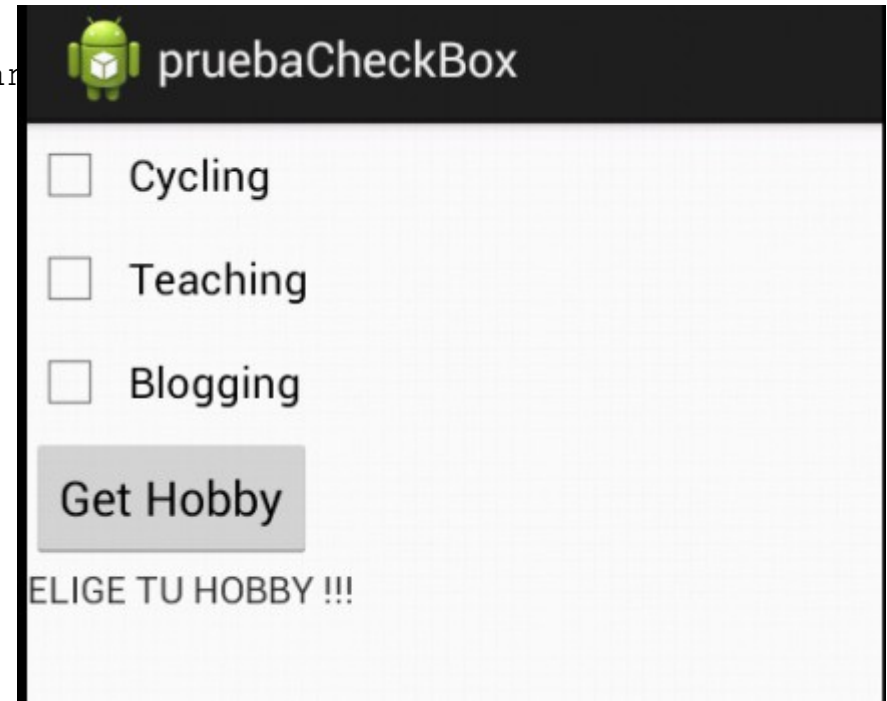
```
<LinearLayout
xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent">
```

```
    <CheckBox
        android:text="Cycling"
        android:id="@+id/chkBoxCycling"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
    </CheckBox>
```

```
    <CheckBox
        android:text="Teaching"
        android:id="@+id/chkBoxTeaching"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
    </CheckBox>
```

```
    <CheckBox
        android:text="Blogging"
        android:id="@+id/chkBoxBlogging"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content">
    </CheckBox>
```

.....



```
        <Button
            android:text="Get Hobby"
            android:id="@+id/btnHobby"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            >
        </Button>

        <TextView
            android:layout_width="fill_parent"
            android:layout_height="wrap_content"
            android:id="@+id/txtHobby"
            android:text="@string/opHobby">
        </TextView>

    </LinearLayout>
```

```
public class MainActivity extends Activity {
```

```
    CheckBox chkBoxCycling;  
    CheckBox chkBoxTeaching;  
    CheckBox chkBoxBlogging;  
    Button btnHobby;  
    TextView txtHobby;
```

```
    protected void onCreate(Bundle savedInstanceState)
```

```
        // TODO Auto-generated method stub  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);
```

```
        initialUISetup();
```

```
    }
```

```
    public void initialUISetup()
```

```
    {
```

```
        chkBoxCycling = (CheckBox) findViewById(R.id.chkBoxCycling);  
        chkBoxTeaching = (CheckBox) findViewById(R.id.chkBoxTeaching);  
        chkBoxBlogging = (CheckBox) findViewById(R.id.chkBoxBlogging);  
        btnHobby = (Button) findViewById(R.id.btnHobby);  
        txtHobby = (TextView) findViewById(R.id.txtHobby);
```

```
        btnHobby.setOnClickListener(new View.OnClickListener() {
```

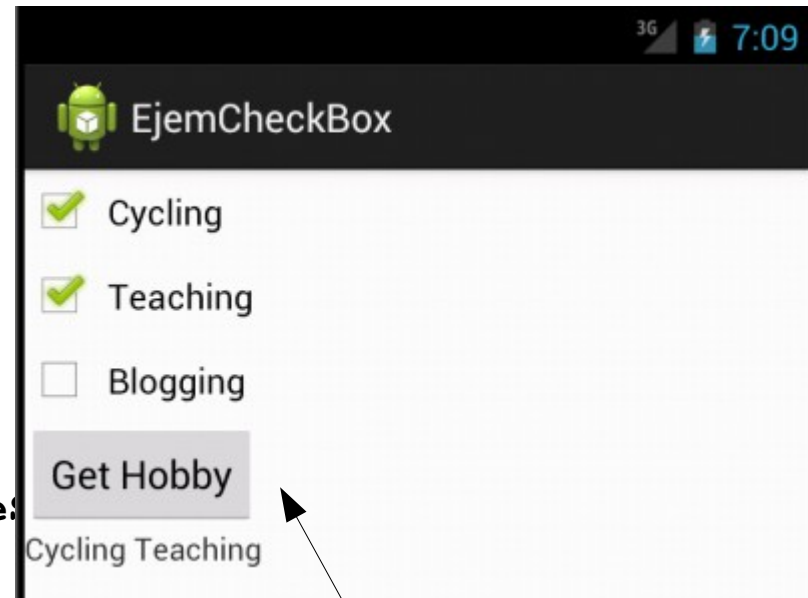
```
            public void onClick(View v) {
```

```
                getHobbyClick(v);
```

```
            }
```

```
        });
```

```
    }
```

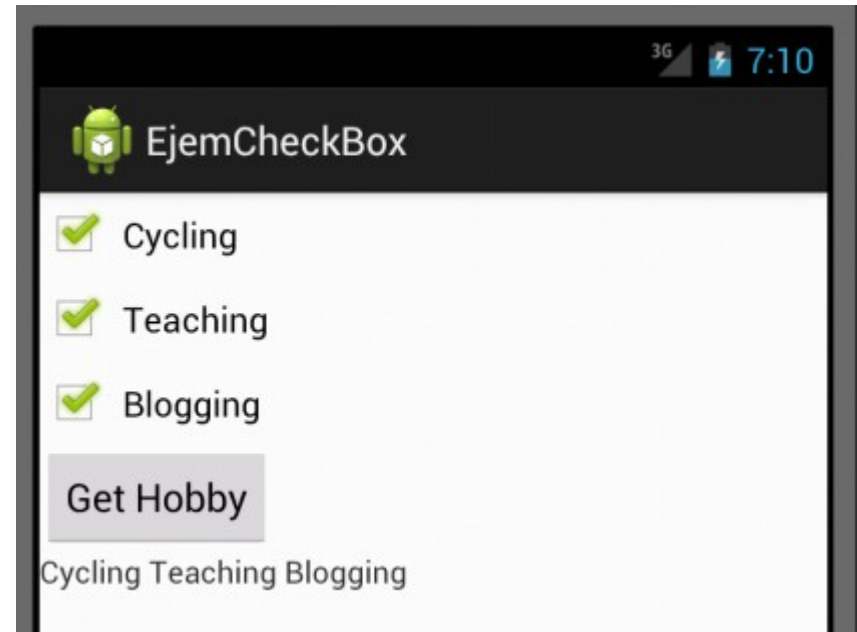




```
public void getHobbyClick(View v)
```

```
{  
String strMessage = "";  
  
if(chkBoxCycling.isChecked())  
{  
    strMessage+="Cycling ";  
}  
if(chkBoxTeaching.isChecked())  
{  
    strMessage+="Teaching ";  
}  
if(chkBoxBlogging.isChecked())  
{  
    strMessage+="Blogging ";  
}  
showTextNotification(strMessage);  
}
```

```
public void showTextNotification(String msgToDisplay)  
{  
txtHobby.setText(msgToDisplay);  
//Toast.makeText(this, msgToDisplay, Toast.LENGTH_SHORT).show();  
  
}  
}
```



# OTRA VERSION: Evento directo sobre CheckBox

```
public class OtroCheckBox extends Activity {
```

```
    CheckBox chkBoxCycling;  
    CheckBox chkBoxTeaching;  
    CheckBox chkBoxBlogging;  
    Button btnHoby;  
    TextView txtHobby;  
    @Override  
    protected void onCreate(Bundle savedInstanceState) {  
        // TODO Auto-generated method stub  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_otro_check_box);  
  
        initialUISetup();  
    }
```

```
    public void initialUISetup()  
    {
```

```
        chkBoxCycling = (CheckBox) findViewById(R.id.chkBoxCycling);  
        chkBoxTeaching = (CheckBox) findViewById(R.id.chkBoxTeaching);  
        chkBoxBlogging = (CheckBox) findViewById(R.id.chkBoxBlogging);
```

```
        TextView txtHobby = (TextView) findViewById(R.id.txtHobby);  
        chkBoxCycling.setOnCheckedChangeListener(new myCheckBoxChangeListener());  
        chkBoxTeaching.setOnCheckedChangeListener(new myCheckBoxChangeListener());  
        chkBoxBlogging.setOnCheckedChangeListener(new myCheckBoxChangeListener());  
    }
```

Crear la clase Interna a OtroCheckBox



# OTRA VERSION: Evento directo sobre CheckBox

**class myCheckBoxChangeClicker implements CheckBox.OnCheckedChangeListener**

```
{ @Override
  public void onCheckedChanged(CompoundButton buttonView, boolean isChecked)
  {
    if(isChecked)
    {
      if(buttonView==chkBoxCycling)
      {
        showTextNotification("Cycling");
      }
      if(buttonView==chkBoxTeaching)
      {
        showTextNotification("Teaching");
      }
      if(buttonView==chkBoxBlogging)
      {
        showTextNotification("BlackBlogging");
      }
    }
  }
}
```

}// clase interna

```
public void showTextNotification(String msgToDisplay)
{ Toast.makeText(this, msgToDisplay, Toast.LENGTH_SHORT).show();
}
```

# Widgets básicos: RadioButton I

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    android:orientation="vertical" >

    <TextView
        android:id="@+id/LblSeleccion"
        android:layout_width="fill_parent"
        android:layout_height="wrap_content"
        android:text="ID opción seleccionada: (ninguna)" />

    <RadioGroup
        android:id="@+id/gruporb"
        android:layout_width="fill_parent"
        android:layout_height="150dp"
        android:orientation="vertical" >

        <RadioButton
            android:id="@+id/radio1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Opción 1" />

        <RadioButton
            android:id="@+id/radio2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="Opción 2" />

    </RadioGroup>

</LinearLayout>
```



# Widgets básicos: RadioButton I

```
public class MainActivity extends Activity {  
  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
  
        final TextView lblMensaje = (TextView)findViewById(R.id.LblSeleccion);  
        final RadioGroup rg = (RadioGroup)findViewById(R.id.gruporb);  
  
        rg.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {  
  
            public void onCheckedChanged(RadioGroup group, int checkedId) {  
                lblMensaje.setText("ID opción seleccionada: " + checkedId);  
            }  
        });  
    }  
}
```



# RadioButton : Un pequeño cambio

```
public class MainActivity extends Activity {  
  
    public void onCreate(Bundle savedInstanceState) {  
        super.onCreate(savedInstanceState);  
        setContentView(R.layout.activity_main);  
        final TextView lblMensaje = (TextView) findViewById(R.id.LblSeleccion);  
        final RadioGroup rg = (RadioGroup) findViewById(R.id.gruporb);  
  
        rg.clearCheck();  
        rg.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {  
            public void onCheckedChanged(RadioGroup group, int checkedId) {  
                String textoOpcion="";  
                if( group.getCheckedRadioButtonId()==R.id.radio1)  
                    textoOpcion += "OPCION 1 con ID:" + checkedId;  
                if( group.getCheckedRadioButtonId()==R.id.radio2)  
                    textoOpcion += "OPCION 2 con ID:" + checkedId ;  
                lblMensaje.setText(textoOpcion);  
            }  
        });  
    }  
}
```

