

1. Realizar una aplicación similar al de las MONEDAS, pero utilizando Volúmenes (Mínimo 8).

Tabla de conversión es la siguiente:

Conversión de unidades de volumen								
	dm <sup>3</sup>	cm <sup>3</sup>	m <sup>3</sup>	in <sup>3</sup>	ft <sup>3</sup>	ml	gal	L
1 dm <sup>3</sup> =	1	1000	0.001	61.0237	0.0353	1000	0.22	1
1 cm <sup>3</sup> =	0.001	1	1 x 10 <sup>-6</sup>	6.102 x 10 <sup>-2</sup>	3.531 x 10 <sup>-5</sup>	1	2.2 x 10 <sup>-4</sup>	1 x 10 <sup>-3</sup>
1 m <sup>3</sup> =	1000	10 <sup>6</sup>	1	6.102 x 10 <sup>4</sup>	35.31	1 x 10 <sup>6</sup>	220	1000
1 in <sup>3</sup> =	0.0164	16.39	1.639 x 10 <sup>-5</sup>	1	5.787 x 10 <sup>-4</sup>	16.39	3.605 x 10 <sup>-3</sup>	1.639 x 10 <sup>-2</sup>
1 ft <sup>3</sup> =	28.32	2.832 x 10 <sup>4</sup>	2.832 x 10 <sup>-2</sup>	1728	1	28320	6.2288	28.32
1 ml =	0.001	1	1 x 10 <sup>-6</sup>	0.06102	3.531 x 10 <sup>-5</sup>	1	2.2 x 10 <sup>-4</sup>	0.001
1 gal =	4.546	4546	4.546 x 10 <sup>-3</sup>	277.419	0.1605	4546	1	4.546
1 L =	1	1000	1 x 10 <sup>-3</sup>	61.02	3.531 x 10 <sup>-2</sup>	1000	0.22	1

MainActivity.java

```
package com.example.volumeconverter2;

import android.app.Activity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.PopupMenu;

public class MainActivity extends Activity implements
PopupMenu.OnMenuItemClickListener {

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

    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }

    public boolean onOptionsItemSelected(MenuItem item) {
        int id = item.getItemId();
    }
}
```

```

        if (id == R.id.action_settings) {
            return true;
        }
        return super.onOptionsItemSelected(item);
    }

    public void changeValue(View v) {
        PopupMenu p = new PopupMenu(this, v);
        p.setOnMenuItemClickListener(this);
        p.inflate(R.menu.popup_one);
        p.show();
    }

    public boolean onOptionsItemSelected(MenuItem item) {
        Button b1 = (Button) this.findViewById(R.id.button1);

        switch (item.getItemId()) {
            case R.id.item1:
                b1.setText("decimetro cubico");
                return true;
            case R.id.item2:
                b1.setText("centimetro cubico");
                return true;
            case R.id.item3:
                b1.setText("metro cubico");
                return true;
            case R.id.item4:
                b1.setText("pulgada cubica");
                return true;
            case R.id.item5:
                b1.setText("pie cubico");
                return true;
            case R.id.item6:
                b1.setText("mililitro");
                return true;
            case R.id.item7:
                b1.setText("galon");
                return true;
            case R.id.item8:
                b1.setText("litro");
                break;
        }
        return false;
    }

    public void init(View v) {
        EditText t0 = (EditText) this.findViewById(R.id.editInput0);
        EditText t1 = (EditText) this.findViewById(R.id.editText1);
        EditText t2 = (EditText) this.findViewById(R.id.editText2);
        EditText t3 = (EditText) this.findViewById(R.id.editText3);
    }

```

```

EditText t4 = (EditText) this.findViewById(R.id.editText4);
EditText t5 = (EditText) this.findViewById(R.id.editText5);
EditText t6 = (EditText) this.findViewById(R.id.editText6);
EditText t7 = (EditText) this.findViewById(R.id.editText7);
EditText t8 = (EditText) this.findViewById(R.id.editText8);
Button b1 = (Button) this.findViewById(R.id.button1);
t0.setText("");
t1.setText("");
t2.setText("");
t3.setText("");
t4.setText("");
t5.setText("");
t6.setText("");
t7.setText("");
t1.setText("");
t8.setText("");
b1.setText("litro");

```

```

}

```

```

public void convert(View v) {

```

```

    EditText t0 = (EditText) this.findViewById(R.id.editInput0);
    EditText t1 = (EditText) this.findViewById(R.id.editText1);
    EditText t2 = (EditText) this.findViewById(R.id.editText2);
    EditText t3 = (EditText) this.findViewById(R.id.editText3);
    EditText t4 = (EditText) this.findViewById(R.id.editText4);
    EditText t5 = (EditText) this.findViewById(R.id.editText5);
    EditText t6 = (EditText) this.findViewById(R.id.editText6);
    EditText t7 = (EditText) this.findViewById(R.id.editText7);
    EditText t8 = (EditText) this.findViewById(R.id.editText8);
    Button b1 = (Button) this.findViewById(R.id.button1);

```

```

    String labels[] = { "decimetro cubico", "centimetro cubico", "metro cubico",
"pulgada cubica", "pie cubico",
    "mililitro cubico", "galon", "litro" };

```

```

    int x = 0;

```

```

    for (int i = 0; i < labels.length; i++) {
        if (labels[i].equals(b1.getText().toString())) {
            x = i;
            break;
        }
    }

```

```

}

```

```

    double value = Double.parseDouble(t0.getText().toString());

```

```

    double tableConv[][] = { { 1, 1000, 0.001, 61.0237, 0.0353, 1000, 0.22, 1 },
        { 0.001, 1, 1e-6, 6.102e-2, 3.531e-5, 1, 2.2e-4, 1e-3 },
        { 1000, 1e6, 1, 6.102e4, 35.31, 1e6, 220, 1000 },
        { 0.0164, 16.39, 1.639e-5, 1, 5.787e-4, 16.39, 3.605e-3, 1.639e-2 },
        { 28.32, 2.832e4, 2.832e-2, 1728, 1, 28320, 6.2288, 28.32 },
        { 0.001, 1, 1e-6, 0.06102, 3.531e-5, 1, 2.2e-4, 0.001 },
    };

```

```

        { 4.546, 4546, 4.546e-3, 277.419, 0.1605, 4546, 1, 4.546 },
        { 1, 1000, 1e-3, 61.02, 3.531e-2, 1000, 0.22, 1 } };

t1.setText(String.format("%.6f", value * tableConv[x][0]));
t2.setText(String.format("%.6f", value * tableConv[x][1]));
t3.setText(String.format("%.6f", value * tableConv[x][2]));
t4.setText(String.format("%.6f", value * tableConv[x][3]));
t5.setText(String.format("%.6f", value * tableConv[x][4]));
t6.setText(String.format("%.6f", value * tableConv[x][5]));
t7.setText(String.format("%.6f", value * tableConv[x][6]));
t8.setText(String.format("%.6f", value * tableConv[x][7]));
    }
}

```

## activity\_main.xml

```

<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:id="@+id/LinearLayout1"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:paddingBottom="@dimen/activity_vertical_margin"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    tools:context="com.example.volumeconverter2.MainActivity" >

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

        <Button
            android:id="@+id/button1"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:onClick="changeValue"
            android:text="litro"
            android:textSize="12sp" />

        <EditText
            android:id="@+id/editInput0"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:digits="0123456789."
            android:inputType="numberDecimal"
            android:ems="10" >

```

```
<requestFocus />
</EditText>
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:gravity="center_horizontal" >

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="convert"
        android:text="convertir" />

    <Button
        android:id="@+id/button3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:onClick="init"
        android:text="inicializar" />
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content" >

    <TextView
        android:id="@+id/textView1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="0.94"
        android:text="decimetro cubico"
        android:textSize="12sp" />

    <EditText
        android:id="@+id/editText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:ems="10"
        android:textSize="12sp" />
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
```

```
android:layout_height="wrap_content" >
```

```
<TextView
```

```
    android:id="@+id/textView2"  
    android:layout_width="120dp"  
    android:layout_height="wrap_content"  
    android:text="centimetro cubico"  
    android:textSize="12sp" />
```

```
<EditText
```

```
    android:id="@+id/editText2"  
    android:layout_width="match_parent"  
    android:layout_height="wrap_content"  
    android:ems="10"  
    android:textSize="12sp" />
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"  
    android:layout_height="wrap_content" >
```

```
<TextView
```

```
    android:id="@+id/textView3"  
    android:layout_width="120dp"  
    android:layout_height="wrap_content"  
    android:text="metro cubico"  
    android:textSize="12sp" />
```

```
<EditText
```

```
    android:id="@+id/editText3"  
    android:layout_width="wrap_content"  
    android:layout_height="wrap_content"  
    android:layout_weight="1"  
    android:ems="10"  
    android:textSize="12sp" />
```

```
</LinearLayout>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"  
    android:layout_height="wrap_content" >
```

```
<TextView
```

```
    android:id="@+id/textView4"  
    android:layout_width="120dp"  
    android:layout_height="wrap_content"  
    android:text="pulgada cubica"  
    android:textSize="12sp" />
```

```
<EditText
    android:id="@+id/editText4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="1"
    android:ems="10"
    android:textSize="12sp" />
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content" >
```

```
<TextView
    android:id="@+id/textView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="5.31"
    android:text="pie cubico"
    android:textSize="12sp" />
```

```
<EditText
    android:id="@+id/editText5"
    android:layout_width="168dp"
    android:layout_height="wrap_content"
    android:ems="10"
    android:textSize="12sp" />
```

```
</LinearLayout>
```

```
<LinearLayout
    android:layout_width="match_parent"
    android:layout_height="wrap_content" >
```

```
<TextView
    android:id="@+id/textView6"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_weight="2.75"
    android:text="mililitro"
    android:textSize="12sp" />
```

```
<EditText
    android:id="@+id/editText6"
    android:layout_width="166dp"
    android:layout_height="wrap_content"
    android:ems="10"
    android:textSize="12sp" />
```

```

</LinearLayout>

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

    <TextView
        android:id="@+id/textView7"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="2.05"
        android:text="galon"
        android:textSize="12sp" />

    <EditText
        android:id="@+id/editText7"
        android:layout_width="166dp"
        android:layout_height="wrap_content"
        android:ems="10"
        android:textSize="12sp" />

</LinearLayout>

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

    <TextView
        android:id="@+id/textView8"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1.90"
        android:text="litro"
        android:textSize="12sp" />

    <EditText
        android:id="@+id/editText8"
        android:layout_width="166dp"
        android:layout_height="wrap_content"
        android:ems="10"
        android:textSize="12sp" />

</LinearLayout>
</LinearLayout>

```

**Se creo un archivo XML en la siguiente ruta del proyecto  
 VolumeConverter2/res/menu este archivo contiene nuestro popup. Un pequeño  
 menú que ayudara a la selección de la medida a convertir.**



## popup\_one.xml

```
<?xml version="1.0" encoding="utf-8"?>
<menu xmlns:android="http://schemas.android.com/apk/res/android" >
    <item
        android:id="@+id/item1"
        android:title="decimetro cubico"/>
    <item
        android:id="@+id/item2"
        android:title="centimetro cubico"/>
    <item
        android:id="@+id/item3"
        android:title="metro cubico"/>
    <item
        android:id="@+id/item4"
        android:title="pulgada cubica"/>
    <item
        android:id="@+id/item5"
        android:title="pie cubico"/>
    <item
        android:id="@+id/item6"
        android:title="mililitro"/>
    <item
        android:id="@+id/item7"
        android:title="galon"/>
    <item
        android:id="@+id/item8"
        android:title="litro"/>
</menu>
```

## Capturas de Pantalla

