



CORRECTION TP01

Matière : ATELIER DEVELOPPEMENT MOBILES 1

Classe : SEM21

strings.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name">ConversionTemperature</string>
    <string name="action_settings">Settings</string>
    <string name="dc">°C</string>
    <string name="dcAdf">°C -> °F</string>
    <string name="df">°F</string>
    <string name="dfAdc">°F -> °C</string>
</resources>
```

activity_main.xml

```
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent"
    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=".MainActivity" >
    <LinearLayout
        android:layout_width="fill_parent"
        android:layout_height="fill_parent"
        android:layout_alignParentLeft="true"
        android:layout_alignParentTop="true"
        android:orientation="vertical" >
        <LinearLayout
            android:layout_width="fill_parent"
            android:layout_height="wrap_content" >
            <EditText
                android:id="@+id/edC"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_weight="1"
                android:ems="10"
                android:inputType="number" />
            <requestFocus />
            <TextView
                android:id="@+id/TextView01"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content"
                android:layout_weight="1"
                android:text="@string/dc" />
            <Button
                android:id="@+id/btnCF"
                android:layout_width="wrap_content"
                android:layout_height="wrap_content" />
        </LinearLayout>
    </RelativeLayout>
```

```

        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_weight="1"
        android:text="@string/dcAdf" />
    </LinearLayout>
    <LinearLayout
        android:layout_width="fill_parent"
        android:layout_height="wrap_content" >
        <EditText
            android:id="@+id/edF"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:ems="10"
            android:inputType="number" >
        </EditText>
        <TextView
            android:id="@+id/textView2"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="@string/df" />
        <Button
            android:id="@+id/btnFC"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:text="@string/dfAdc" />
    </LinearLayout>
</LinearLayout>
</RelativeLayout>

```

MainActivity.java

```

package com.conversiontemperature;
import android.app.Activity;
import android.graphics.Color;
import android.os.Bundle;
import android.view.KeyEvent;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.view.View.OnKeyListener;
import android.widget.Button;
import android.widget.EditText;
public class MainActivity extends Activity {
    // attributs
    private EditText edC;
    private EditText edF;
    private Button btnCF;
    private Button btnFC;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        init();
    }
}

```

```

private void init() {
    edC = (EditText) findViewById(R.id.edC);
    edF = (EditText) findViewById(R.id.edF);
    btnCF = (Button) findViewById(R.id.btnCF);
    btnFC = (Button) findViewById(R.id.btnFC);
    ajouterEcouteur();
}
private void ajouterEcouteur() {
    btnCF.setOnClickListener(new OnClickListener() {

        @Override
        public void onClick(View arg0) {
            convertirDC_DF();

        }
    });
    btnFC.setOnClickListener(new OnClickListener() {

        @Override
        public void onClick(View arg0) {
            convertirDF_DC();

        }
    });
    edC.setOnKeyListener(new OnKeyListener() {

        @Override
        public boolean onKey(View v, int keyCode, KeyEvent event) {
            convertirDC_DF();
            return false;
        }
    });
    edF.setOnKeyListener(new OnKeyListener() {
        @Override
        public boolean onKey(View v, int keyCode, KeyEvent event) {
            convertirDF_DC();
            return false;
        }
    });
}

protected void convertirDC_DF() {
    if(!edC.getText().toString().isEmpty()){
        float c = Float.parseFloat(edC.getText().toString());
        float f = (c * 9) / 5 + 32;
        edF.setText(f + "");
        colorer();
    }
}

```

```

protected void convertirDF_DC() {
    if(!edF.getText().toString().isEmpty()){
        float f = Float.parseFloat(edF.getText().toString());
        float c = (f - 32) * 5 / 9;
        edC.setText(c + "");
        colorer();
    }
}

private void colorer() {
    if(!edC.getText().toString().isEmpty()){
        float c = Float.parseFloat(edC.getText().toString());
        if (c <= 0) {
            edC.setTextColor(Color.WHITE);
            edC.setBackground(Color.BLACK);
            edF.setTextColor(Color.WHITE);
            edF.setBackground(Color.BLACK);
        } else if (c <= 20) {
            edC.setTextColor(Color.BLUE);
            edC.setBackground(Color.WHITE);
            edF.setTextColor(Color.BLUE);
            edF.setBackground(Color.WHITE);
        } else if (c <= 30) {
            edC.setTextColor(Color.YELLOW);
            edC.setBackground(Color.GREEN);
            edF.setTextColor(Color.YELLOW);
            edF.setBackground(Color.GREEN);
        } else {
            edC.setTextColor(Color.RED);
            edC.setBackground(Color.GRAY);
            edF.setTextColor(Color.RED);
            edF.setBackground(Color.GRAY);
        }
    }
}
}

```