

Correction TD02

Matière : DEVELOPPEMENT D'APPLICATIONS MOBILES NATIVES

Classe : SEM21

strings.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <string name="app_name"> Dimensions écran</string>
    <string name="diagonale">Diagonale</string>
    <string name="pouce">pouce</string>
    <string name="format">Format</string>
    <string name="calculer">Calculer</string>
    <string name="effacer">Effacer</string>
    <string name="largeur">Largeur</string>
    <string name="hauteur">Hauteur</string>
    <string name="surface">Surface</string>
    <string name="cm">cm</string>
    <string name="cm2">cm2</string>
    <string-array name="format">
        <item>16/9</item>
        <item>4/3</item>
    </string-array>
</resources>
```

activity_main.xml

```
<TextView android:id="@+id/tv1" android:text="@string/diagonale" />
<TextView android:id="@+id/tv2" android:text="@string/pouce" />
<TextView android:id="@+id/tv3" android:text="@string/format" />
<TextView android:id="@+id/tv4" android:text="@string/calculer" />
<Spinner android:id="@+id/spFormat" android:entries="@array/format" />
<Button android:id="@+id/btnCalculer" android:text="@string/calculer" />
<Button android:id="@+id/btnEffacer" android:text="@string/effacer" />
<TextView android:id="@+id/tv5" android:text="@string/largeur" />
<TextView android:id="@+id/tv6" android:text="@string/cm" />
<TextView android:id="@+id/tv7" android:text="@string/hauteur" />
<TextView android:id="@+id/tv8" android:text="@string/cm" />
<TextView android:id="@+id/tv9" android:text="@string/surface" />
<TextView android:id="@+id/tv10" android:text="@string/cm2" />
```

MainActivity.java

```
package com.ecran;
public class MainActivity extends Activity {
    public static final double POUCE=2.54;
    private EditText edDiag;
    private Spinner spFormat;
    private Button btnCalc;
    private Button btnEff;
    private EditText edLarg;
    private EditText edHaut;
    private EditText edSurf;
```

```

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    initGraphique();
}
private void initGraphique () {
    edDiag = findViewById(R.id.edDiag);
    spFormat = findViewById(R.id.spForm);
    btnCalc = findViewById(R.id.btnCalc);
    btnEff = findViewById(R.id.btnEff);
    edLarg = findViewById(R.id.edLarg);
    edHaut = findViewById(R.id.edHaut);
    edSurf = findViewById(R.id.edSurf);
    ajouterEcouteurs();
}
private void ajouterEcouteurs() {
    btnCalc.setOnClickListener(view -> calculer());
    btnEff.setOnClickListener(view -> effacer());
}
protected void calculer() {
    double diag=Double.parseDouble(edDiag.getText().toString());
    double larg=0;
    double haut=0;
    double surf=0;
    switch(spFormat.getSelectedItemPosition()){
    case 0:
        larg=POUCE*16*diag/Math.sqrt(337);
        haut=POUCE*9*diag/Math.sqrt(337);
        break;
    case 1:
        larg=POUCE*4*diag/5;
        haut=POUCE*3*diag/5;
        break;
    }
    surf=larg*haut;
    edLarg.setText(String.format("%.2f", larg));
    edHaut.setText(String.format("%.2f", haut));
    edSurf.setText(String.format("%.2f", surf));
}

protected void effacer() {
    edDiag.setText("");
    spFormat.setSelection(0);
    edLarg.setText("");
    edHaut.setText("");
    edSurf.setText("");
    edDiag.requestFocus();
}
}

```