

# Converterlator

Calculator+Converter app.

## The code

[unit\\_convert.js](#)

```
//variables for converter.
var unitval = [];
unitval ["mm"] = 1;
unitval ["cm"] = 10
unitval ["m"] = 1000;
unitval ["km"] =1000000;

unitval ["g"] = 1;
unitval ["pound"] = 453.59;
unitval ["kg"] = 1000;

//variables for calculator.
var sum = "";
var π = 3.14;

//Called when application is started.
function OnStart()
{
    //Create a main layout with objects vertically centered.
    lay = app.CreateLayout( "linear", "FillXY" );
    lay.SetBackColor( "#ff000000" );

    //Create array to hold number buttons.
    keys = [ 7,8,9,"/", 4,5,6,"*", 1,2,3,"-",
    ", 0, ".", "C", "+", "√", "π", "=", "%" ];

    //Create an about button.
    abt = app.CreateButton( "About" );
    abt.SetOnTouch( abt_OnTouch );
    lay.AddChild( abt );

    //Create a spinner for Background colour.
    clrs = app.CreateSpinner( "Background Color-
    Black,Blue,Red,Yellow,Purple,Orange,White" );
    clrs.SetOnTouch( clrs_OnTouch );
    lay.AddChild( clrs );

    //Create text control for displaying sum.
    txtSum = app.CreateText( "", 1.0, 0.1 );
```

```
txtSum.SetTextSize( 42 );
txtSum.SetBackgroundColor( "#ff222222" );
txtSum.SetMargins( 0, 0.05, 0, 0.05 );
lay.AddChild( txtSum );

//Create first row of buttons.
lay1st = app.CreateLayout( "linear", "Horizontal" );
for( i=0; i<4; i++ ) AddButton( lay1st, keys[i] );
lay.AddChild( lay1st );

//Create second row of buttons.
lay2nd = app.CreateLayout( "linear", "Horizontal" );
for( i=4; i<8; i++ ) AddButton( lay2nd, keys[i] );
lay.AddChild( lay2nd );

//Create third row of buttons.
lay3rd = app.CreateLayout( "linear", "Horizontal" );
for( i=8; i<12; i++ ) AddButton( lay3rd, keys[i] );
lay.AddChild( lay3rd );

//Create fourth row of buttons.
lay4th = app.CreateLayout( "linear", "Horizontal" );
for( i=12; i<16; i++ ) AddButton( lay4th, keys[i] );
lay.AddChild( lay4th );

//Create fifth row of buttons.
lay5th = app.CreateLayout( "linear", "Horizontal" );
for( i=16; i<20; i++ ) AddButton( lay5th, keys[i] );
lay.AddChild( lay5th );

//Create a converter button.
cnvrtr = app.CreateButton( "Converter", 0.4, 0.1 );
cnvrtr.SetOnTouch( cnvrtr_OnTouch );
cnvrtr.SetMargins( 0, 0.02, 0, 0 );
lay.AddChild( cnvrtr );

//Set Debug off for max performance.
app.SetDebugEnabled( false );

app.EnableBackKey( false );

//Add layout to app.
app.AddLayout( lay );
}
function OnBack()
{
var yesno = app.CreateYesNoDialog( "Exit Converter?" );
yesno.SetOnTouch( yesno_OnTouch );
}
function yesno_OnTouch( result )
```

```
{
  if( result == "Yes" ) app.Exit();
}
function abt_OnTouch()
{
  //Create a dialog window.
  dlg = app.CreateDialog( "About" );

  //Create a layout for dialog.
  laydlg = app.CreateLayout( "linear" );
  dlg.AddLayout( laydlg );

  vrsn = app.CreateText( "Version : 1.0" );
  vrsn.SetTextSize(24);
  vrsn.SetMargins( 0, 0, 0, 0.02 );
  laydlg.AddChild(vrsn);

  nm = app.CreateText( "Developer : Sankarshan Dudhate" );
  nm.SetTextSize(20);
  nm.SetPadding(0.05, 0, 0, 0 );
  laydlg.AddChild(nm);

  dlg.Show();
}

function clr_OnTouch()
{
  if(clr.GetText() == "Blue")
  {
    lay.SetBackColor("#ff0000ff" );
  }
  else if( clr.GetText() == "Red")
  {
    lay.SetBackColor("#ffff0000" );
  }
  else if( clr.GetText() == "Yellow" )
  {
    lay.SetBackColor( "#ffffff00" );
  }
  else if( clr.GetText() == "Purple" )
  {
    lay.SetBackColor( "#aa770077" );
  }
  else if( clr.GetText() == "Orange" )
  {
    lay.SetBackColor( "#ffff6700" );
  }
  else if( clr.GetText() == "White" )
  {
    lay.SetBackColor( "#ffffffff" );
  }
}
```

```
else
{
  lay.SetBackColor( "#ff000000" );
}
}

//Add a button to a given layout.
function AddButton( lay, name )
{
  if( name=="=" ) w = 0.2; else w=0.2;
  btn = app.CreateButton( name, w, 0.1, "Alum" );
  btn.SetOnTouch( btns_OnTouch );
  lay.AddChild( btn );
}

//Called when user presses number buttons.
function btns_OnTouch()
{
  app.Vibrate( "0,100" );

  //Get button text.
  btn = app.GetLastButton();
  var txt = btn.GetText();

  //Handle equals button.
  if( txt=="=" ) CalcResult();

  //Handle clear button.
  else if( txt=="C" ) sum = "";

  else if( txt=="√" )
  {
    sum = Math.sqrt( sum );
  }

  //Handle other buttons.
  else sum += txt;

  //Update display.
  txtSum.SetText( sum );
}

//Calculate sum.
function CalcResult()
{
  try{
    //Evaluate sum (and catch errors).
    sum = eval( sum ).toFixed(4);
  }
}
```

```
        catch(e) { sum = "Error" }
    }

    function cnvrtr_OnTouch()
    {
        //Hide the objects from calculator.
        txtSum.SetVisibility( "Gone" );
        lay1st.SetVisibility( "Gone" );
        lay2nd.SetVisibility( "Gone" );
        lay3rd.SetVisibility( "Gone" );
        lay4th.SetVisibility( "Gone" );
        lay5th.SetVisibility( "Gone" );
        cnvrtr.SetVisibility( "Gone" );

        //Create a spinner for quantities.
        qnt = app.CreateSpinner( "Length,Mass", 0.4, 0.1 );
        qnt.SetOnTouch( qnt_OnTouch );
        qnt.SetMargins( 0, 0.05, 0, 0.02 );
        lay.AddChild( qnt );

        //Create 1st layout for unit and text edit.
        lay1 = app.CreateLayout( "Linear", "Horizontal" );
        lay.AddChild( lay1 );

        //Create 2nd layout for unit and text edit.
        lay2 = app.CreateLayout( "Linear", "Horizontal" );
        lay.AddChild( lay2 );

        /* We will set SetOnTouch callbacks of unt as well as edt
        to be same because if anyone is edited, we should calculate
        same result. So, instead of doing two different callbacks for
        them, we will set same for both of them. */

        //Create a spinner for 1st units.
        unt1 = app.CreateSpinner( "mm,cm,m,km", 0.3, 0.1);
        unt1.SetOnTouch( unt1_OnTouch );
        lay1.AddChild( unt1 );

        //Create text edit to take value.
        edt1 = app.CreateTextEdit( "0", 0.7, 0.1 );
        edt1.SetOnChange( unt1_OnTouch );
        lay1.AddChild( edt1 );

        //Create a spinner for 2nd units.
        unt2 = app.CreateSpinner( "mm,cm,m,km", 0.3, 0.1 );
        unt2.SetOnTouch( unt2_OnTouch );
        lay2.AddChild( unt2 );

        //Create text edit to take value.
        edt2 = app.CreateTextEdit( "0", 0.7, 0.1 );
        edt2.SetOnChange( unt2_OnTouch );
    }
}
```

```
lay2.AddChild( edt2 );

//Create a calculator button.
clc = app.CreateButton( "Calculator", 0.4, 0.1 );
clc.SetOnTouch( clc_OnTouch );
clc.SetMargins( 0, 0.1, 0, 0 );
lay.AddChild( clc );

}

function qnt_OnTouch()
{
    if( qnt.GetText() == "Mass" )
    {
        unt1.SetList( "g,pound,kg" );
        unt2.SetList( "g,pound,kg" );
    }
}

function unt1_OnTouch()
{
    //Create variables to hold values of inputs.
    var a = unitval[unt1.GetText()];
    var b = unitval[unt2.GetText()];
    qty = edt1.GetText();
    res = qty*a/b;
    edt2.SetText( res );
}

function unt2_OnTouch()
{
    //Create variables to hold values of inputs.
    var a = unitval[unt1.GetText()];
    var b = unitval[unt2.GetText()];
    qty = edt2.GetText();
    res = qty*b/a;
    edt1.SetText( res );
}

function isNumber(n)
{
    return !isNaN(parseFloat(n)) && isFinite(n);
}

function clc_OnTouch()
{
    //Hide the objects of converter.
    qnt.SetVisibility( "Gone" );
}
```

```
lay1.SetVisibility( "Gone" );
lay2.SetVisibility( "Gone" );
clc.SetVisibility( "Gone" );

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cnvrtr.SetMargins( 0, 0.02, 0, 0 );
lay.AddChild( cnvrtr );

}
```

## Note

This app is in no way the sort that anyone might wish to use in real life.

It is just a very simplistic demo of the type of approach that might be taken.

From:

<https://wiki.droidsript.me.uk/> - **DroidScript wiki**

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