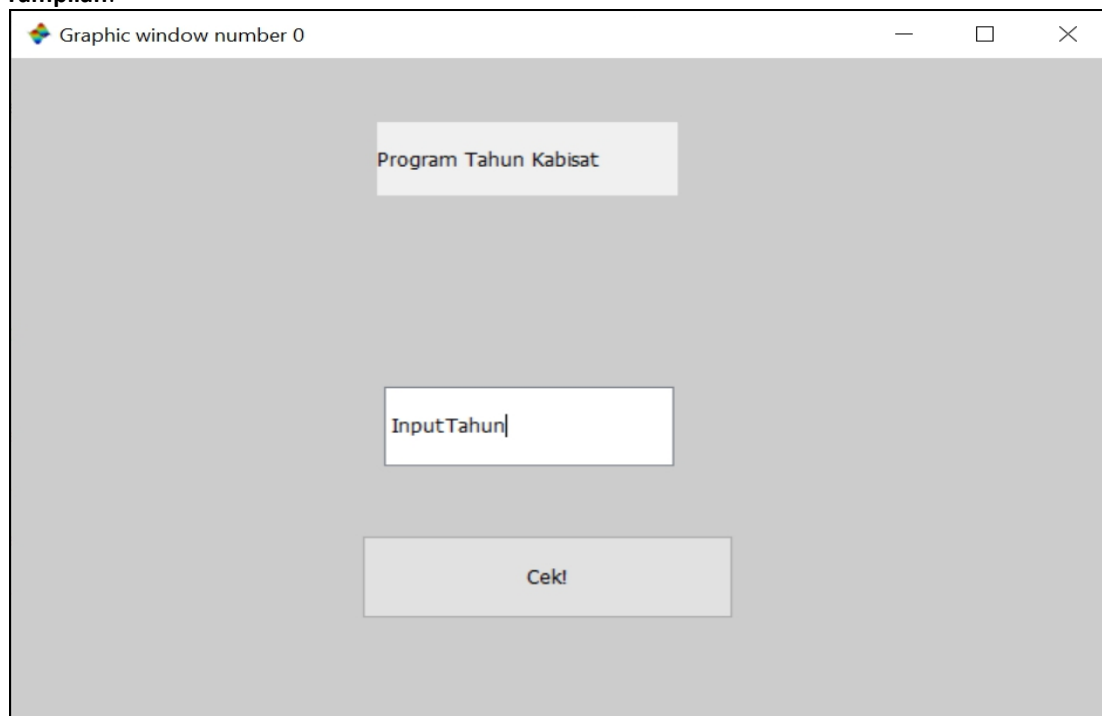


Nama : Abdul Latif Fauzan  
Nim : 123190068  
Matkul : Praktikum SCPK-C

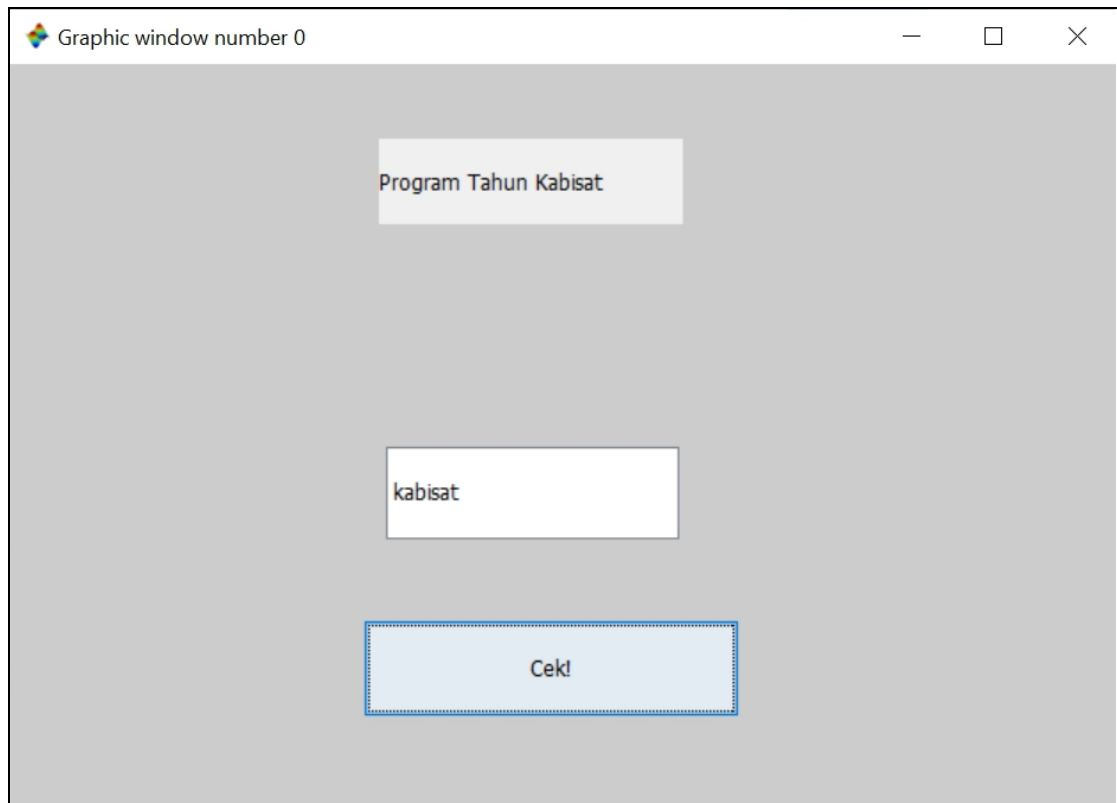
## Laporan Praktikum Membuat GUI Luas Permukaan, Volume Balok dan membuat GUI Pengecekan Tahun Kabisat

Aplikasi yang digunakan: **Scilab**

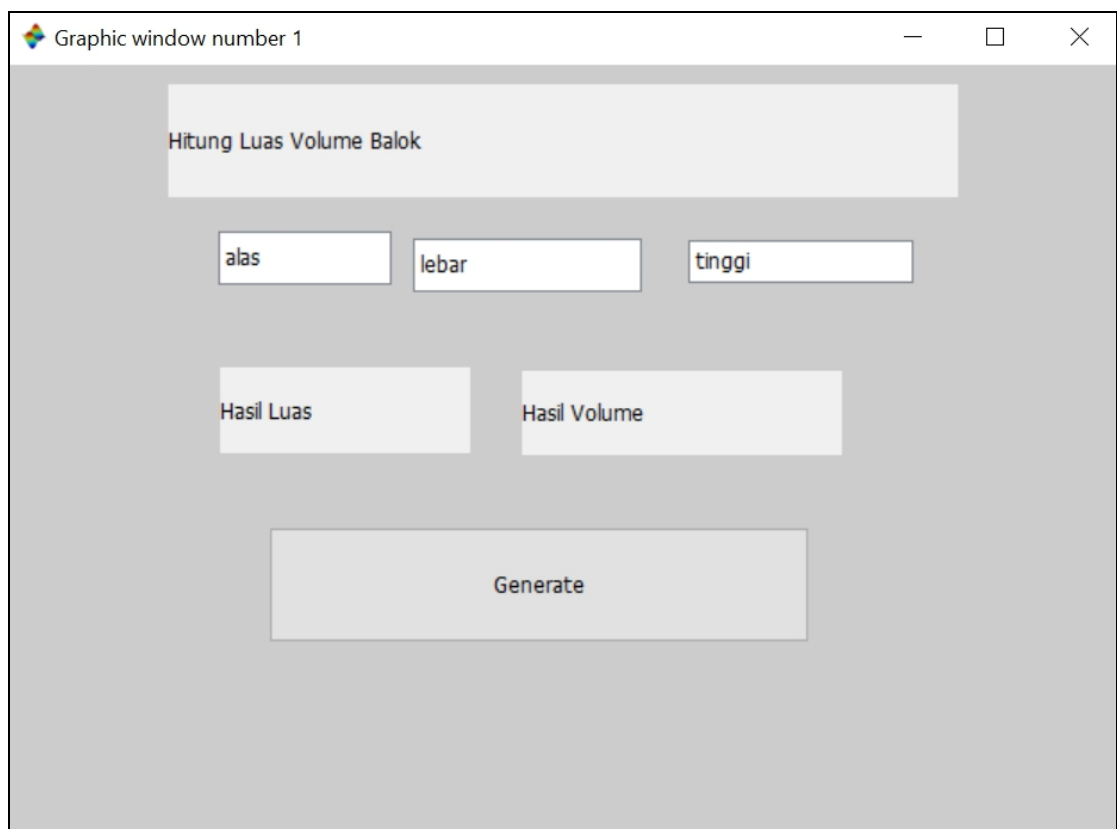
Tampilan:



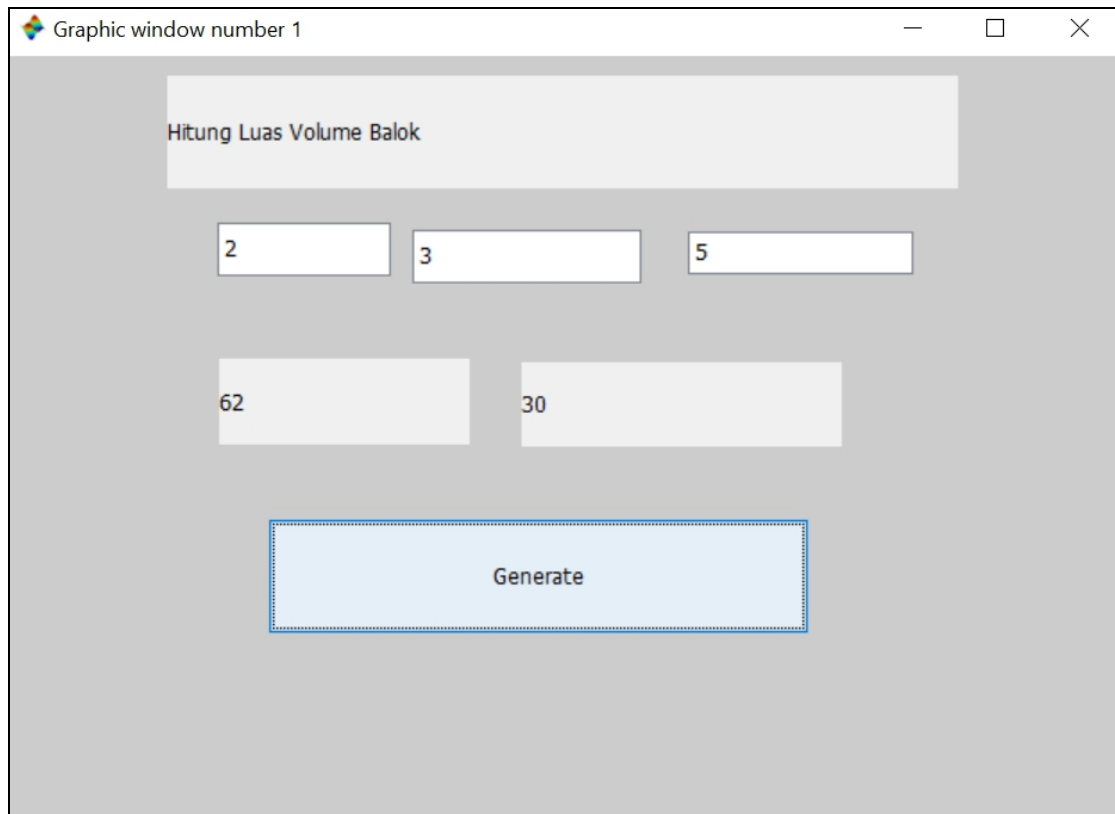
**Gambar 1.0** GUI Tahun Kabisat Sebelum Dipakai



**Gambar 1.1** GUI Tahun Kabisat Setelah di Cek



**Gambar 2.0** GUI Luas dan Volume Balok Sebelum di Generate



**Gambar 2.1** GUI Luas dan Volume Balok Setelah di Generate

```

// This GUI file is generated by guibuilder version
4.2.1//////////f=figure('figure_position',[403,39],'figure_size',[640,480],'auto_resize','on','background',[33],'figure_name','Graphic
window
number %d','dockable','off','infobar_visible','off','toolbar_visible','off','menubar_visible','off','default_axes','on','visible','off');//////////handles.d
ummy = 0;handles.pb_submit=icontrol(f,'unit','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','center','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.3205128,0.170068,0.3397436,0.1269841],'Relief','def
ault','SliderStep',[0.01,0.1],'String','Cek!','Style','pushbutton','Value',[0],'VerticalAlignment','middle','Visible','on','Tag','pb_submit','Callback'
,'pb_submit_callback(handles)')handles.Text_Input=icontrol(f,'unit','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.334935897435897,0.79591837845805,0.2740385,0.1
111111],'Relief','default','SliderStep',[0.01,0.1],'String','Program Tahun
Kabisat','Style','text','Value',[0],'VerticalAlignment','middle','Visible','on','Tag','Text_Input','Callback','')handles.editEq=icontrol(f,'unit','nor
malized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.33974358974359,0.394557823129253,0.2644230769
23077,0.120181405895691],'Relief','default','SliderStep',[0.01,0.1],'String','InputTahun','Style','edit','Value',[0],'VerticalAlignment','m
iddle','Visible','on','Tag','editEq','Callback','')
f.visible = "on";
////////// Callbacks are defined as below. Please do not delete the comments as it will be used in coming version//////////
function pb_submit_callback(handles)
//mengambil inputan user
str_eq= handles.editEq.string;
eq=str_eq;
a= strtod(eq); //ubah string menjadi decimal

//fungsi kabisat
if (modulo(a,400)==0) then
handles.editEq.string='kabisat';
elseif (modulo(a,100)==0) then
handles.editEq.string='bukan kabisat';
elseif (modulo(a,4)==0) then
handles.editEq.string='kabisat';
else
handles.editEq.string='bukan kabisat';
end
endfunction

```

**Source Code 1.0:** Pengecekan Tahun Kabisat

```

// This GUI file is generated by guibuilder version
4.2.1////////f=figure('figure_position',[423,148],'figure_size',[640,480],'auto_resize','on','background',[33],'figure_name','Graphic
window
number %d','dockable','off','info_bar_visible','off','toolbar_visible','off','menubar_visible','off','default_axes','on','visible','off');////////handles.d
ummy = 0;handles.pb_push=icontrol(f,'unit','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','center','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.237179487179487,0.267573696145125,0.4871794
87179487,0.149659863945578],'Relief','default','SliderStep',[0.01,0.1],'String','Generate','Style','pushbutton','Value',[0],'VerticalAlign
ment','middle','Visible','on','Tag','pb_push','Callback','pb_push_callback(handles)')handles.txt_hasilLuas=icontrol(f,'unit','normalized','Backgro
undColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.193910256410256,0.507936507936508,0.225961538
461538,0.111111111111111],'Relief','default','SliderStep',[0.01,0.1],'String','Hasil
Luas','Style','text','Value',[0],'VerticalAlignment','middle','Visible','on','Tag','txt_hasilLuas','Callback','')handles.txt_hasilVolume=icontrol(f,'u
nit','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.463141025641026,0.505668934240363,0.288461538
461538,0.106575963718821],'Relief','default','SliderStep',[0.01,0.1],'String','Hasil
Volume','Style','text','Value',[0],'VerticalAlignment','middle','Visible','on','Tag','txt_hasilVolume','Callback','')handles.txt_judul=icontrol(f,'uni
t','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.147435897435897,0.83312925170068,0.7099358974
35897,0.142857142857143],'Relief','default','SliderStep',[0.01,0.1],'String','Hitung Luas Volume
Balok','Style','text','Value',[0],'VerticalAlignment','middle','Visible','on','Tag','txt_judul','Callback','')handles.cb_alas=icontrol(f,'unit','normali
zed','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.192307692307692,0.72108843537415,0.1554487179
48718,0.068027210884354],'Relief','default','SliderStep',[0.01,0.1],'String','alas','Style','edit','Value',[0],'VerticalAlignment','middle','V
isible','on','Tag','cb_alas','Callback','')handles.cb_lebar=icontrol(f,'unit','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.366987179487179,0.714285714285714,0.206730769
230769,0.068027210884354],'Relief','default','SliderStep',[0.01,0.1],'String','lebar','Style','edit','Value',[0],'VerticalAlignment','middle
','Visible','on','Tag','cb_lebar','Callback','')handles.cb_tinggi=icontrol(f,'unit','normalized','BackgroundColor',[-1,-1,-
1],'Enable','on','FontAngle','normal','FontName','Tahoma','FontSize',[12],'FontUnits','points','FontWeight','normal','ForegroundColor',[-1,-
1,-
1],'HorizontalAlignment','left','ListboxTop',[],'Max',[1],'Min',[0],'Position',[0.613782051282051,0.724285714285714,0.203525641
025641,0.056689342403628],'Relief','default','SliderStep',[0.01,0.1],'String','tinggi','Style','edit','Value',[0],'VerticalAlignment','middl
e','Visible','on','Tag','cb_tinggi','Callback','')
f.visible = "on";
////////// Callbacks are defined as below. Please do not delete the comments as it will be used in coming version////////
function pb_push_callback(handles)
    //mengambil data inputan user string menjadi decimal
    str_t=handles.cb_tinggi.string;
    t=strtod(str_t);
    str_a=handles.cb_alas.string;
    a=strtod(str_a);
    str_l=handles.cb_lebar.string;
    l=strtod(str_l);

    vlm=t*a*l;          //hitung volume
    lp=((t*a)+(a*l)+(l*t))*2; //hitung luas permukaan

    handles.txt_hasilLuas.string=string(lp); //update GUI
    handles.txt_hasilVolume.string=string(vlm); //update GUI
endfunction

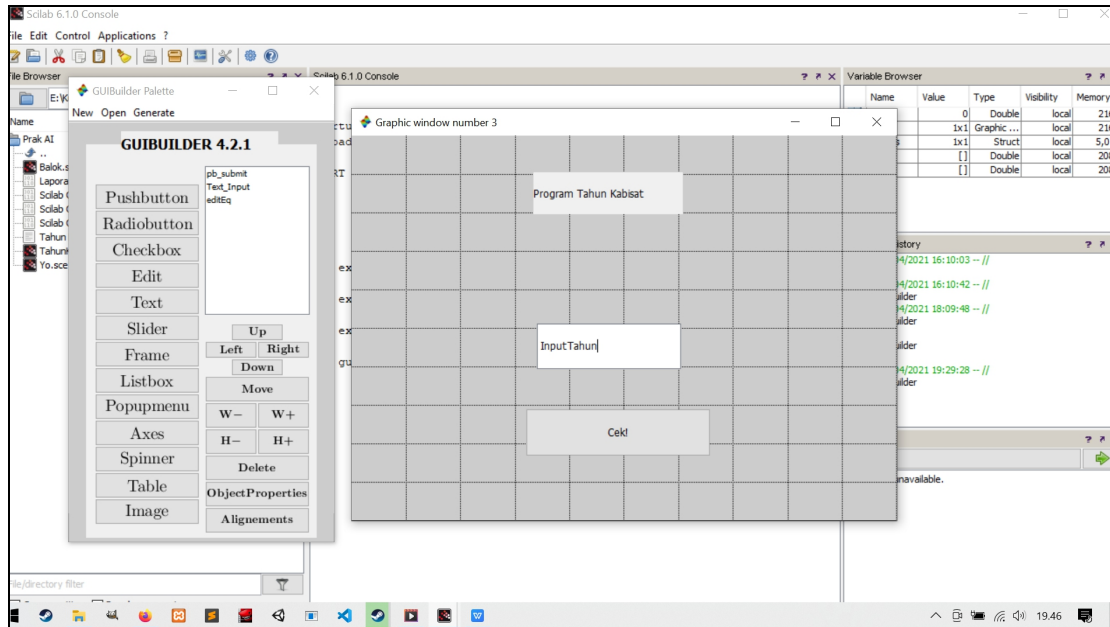
```

**Source Code 2.0: Pengecekan Tahun Kabisat**

### Alasan Menggunakan Scilab:

1. Gratis
2. Ringan
3. Tidak memerlukan kapasitas yang besar

### Screen Shoot Aplikasi Scilab:



**Screenshoot 1.0: Pengecekan Tahun Kabisat**