```asm
 1 ; Name        : tooltip.asm
 2 ;
 3 ; Build       : aclocal && autoconf && automake --add-missing --foreign
 4 ;                 mkdir build
 5 ;                 cd build
 6 ;                 ../configure
 7 ;                 make
 8 ;
 9 ; Description : tooltip demo
10 ;
11 ; Source      : http://zetcode.com/gui/gtk2/firstprograms/
12
13 bits 64
14
15 [list -]
16     extern      gtk_init
17     extern      gtk_window_new
18     extern      gtk_window_set_title
19     extern      gtk_window_set_default_size
20     extern      gtk_container_set_border_width
21     extern      gtk_button_new_with_label
22     extern      gtk_widget_set_tooltip_text
23     extern      gtk_alignment_new
24     extern      gtk_container_add
25     extern      gtk_widget_show_all
26     extern      gtk_main_quit
27     extern      g_signal_connect_data
28     extern      gtk_main
29     extern      exit
30 [list +]
31
32 section .rodata
33     szTitle:        db  "Tooltip", 0
34     szDestroy:      db  "destroy", 0
35     szCaption:      db  "Button", 0
36     szTooltip:      db  "Button Widget",0
37
38 section .data
39     window:      dq  0
40     button:      dq  0
41     halign:      dq  0
42
43 section .text
44
45 global _start
46 _start:
47     ;init gtk
48     xor     rsi,rsi                         ;argv
49     xor     rdi,rdi                         ;argc
50     call    gtk_init
51     ;the main window
52     xor     rdi,rdi                         ;GTK_WINDOW_TOPLEVEL
53     call    gtk_window_new
54     mov     qword[window],rax
55     ;set title
56     mov     rdi,qword[window]
57     mov     rsi,szTitle
58     call    gtk_window_set_title
59     ;set size
60     mov     rdi,qword[window]
61     mov     rsi,300                         ;width
62     mov     rdx,200                         ;height
63     call    gtk_window_set_default_size
64     ;set border width
65     mov     rdi,qword[window]
66     mov     rsi,15                          ;borderwidth
67     call    gtk_container_set_border_width
68     ;create a button
69     mov     rdi,szCaption
70     call    gtk_button_new_with_label
71     mov     qword[button],rax
72     ;set the button tooltip
73     mov     rdi,qword[button]
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74        mov     rsi,szTooltip
75        call    gtk_widget_set_tooltip_text
76        ;horizontal alignment
77        xor     rdi,rdi
78        xor     rsi,rsi
79        xor     rdx,rdx
80        call    gtk_alignment_new
81        mov     qword[halign],rax
82        ;add the button to the halign container
83        mov     rdi,qword[halign]
84        mov     rsi,qword[button]
85        call    gtk_container_add
86        ;add the halign container to the window
87        mov     rdi,qword[window]
88        mov     rsi,qword[halign]
89        call    gtk_container_add
90        ;show window
91        mov     rdi,qword[window]
92        call    gtk_widget_show_all
93        ;connect destroy signal to the window
94        xor     r9d,r9d                      ;combination of GConnectFlags
95        xor     r8d,r8d                      ;a GClosureNotify for data
96        mov     rcx,qword[window]            ;pointer to window instance in RCX
97        mov     rdx,gtk_main_quit            ;pointer to the handler
98        mov     rsi,szDestroy                ;pointer to the signal
99        mov     rdi,qword[window]            ;pointer to window instance in RDI
100       call    g_signal_connect_data        ;the value in RAX is the handler, but we don't store
          it now
101       ;go into application main loop
102       call    gtk_main
103       ;exit program
104       xor     rdi, rdi
105       call    exit
106
```