```cpp
#include "mbed.h"
#include "pinout.h"
#include "to_7seg.h"

// seven segment display anodes
// when in a int8_t, they are 0b-GFEDCBA
BusOut      g_seven_seg(SGA_PIN, SGB_PIN, SGC_PIN, SGD_PIN,
                        SGE_PIN, SGF_PIN, SGG_PIN);

// display cathodes
DigitalOut  g_dsr(DSR_PIN);
DigitalOut  g_dsl(DSL_PIN);

// leds
BusOut      g_leds(LDR_PIN, LDM_PIN, LDL_PIN);


//ticker
static Ticker tick_100ms;

//evento
static bool volatile tick_100ms_evnt;
//interrupcion
static void tick_100ms_isr(void){
  tick_100ms_evnt = true;
}

//interrupcion
static InterruptIn swm (SWM_PIN);

//eventos botones
static bool volatile swm_evnt;

//interrupciones botones
static void swm_isr(void){
  swm_evnt = true;
}

//REBOTES
static Timeout t_4ms;
static bool volatile t_4ms_evnt;
static void t_4ms_isr (void){
  t_4ms_evnt = true;
}


//MULTIPLEXACION
static Ticker tick_4ms;
static bool volatile tick_4ms_evnt;
static void tick_4ms_isr(void){
  tick_4ms_evnt = true;
}

static int8_t g_cnt_sw = 0;    //número de veces que se acciona el pulsador central
static int8_t g_cnt_LED = 0;

int main (void) {

 bool gb_led_seq_on = true;
 bool mux = false;

  g_leds = 4;
  g_dsl = 0;
  g_dsr = 1;
  g_seven_seg = to_7seg(g_cnt_LED);

  tick_100ms.attach_us(tick_100ms_isr,100000);
  tick_4ms.attach_us(tick_4ms_isr,4000);

  //pulsos
  swm.mode(PullUp);
  swm.fall(swm_isr);

  for (;;) {

    if(tick_4ms_evnt){
      tick_4ms_evnt = false;
      mux = !mux;

      if(mux){
        g_dsl=0;
        g_dsr = 1;
        g_seven_seg = to_7seg(g_cnt_LED%10);

```

```
85          }else{
86            g_dsl=1;
87            g_dsr = 0;
88            g_seven_seg = to_7seg(g_cnt_LED/10);
89          }
90        }
91
92        if(tick_100ms_evnt){
93         tick_100ms_evnt = false;
94
95          if(gb_led_seq_on){
96            g_leds = (g_leds==1) ? 4 : (g_leds >> 1);
97            g_cnt_LED++;
98
99            if(g_cnt_LED ==99){
100             g_cnt_LED = 0;
101           }
102
103         }else{
104          }
105       }
106
107       if(swm_evnt){
108         swm_evnt = false;
109         t_4ms.attach_us(t_4ms_isr,4000);
110       }
111
112       if (t_4ms_evnt){
113         t_4ms_evnt = false;
114
115         if(swm ==0){
116             gb_led_seq_on = !gb_led_seq_on;
117         }
118
119       }
120
121       __disable_irq();
122       if(!tick_100ms_evnt && !swm_evnt && !t_4ms_evnt && !tick_4ms_evnt){
123         __WFI();
124       }
125       __enable_irq();
126
127       // [2] segundo bloque de código que puede rellenar ++++++++++++++++++
128
129       //Parte de los leds preguntada
130
131
132       // [2] fin del segundo bloque de código ---------------------------
133
134     } // for (;;)
135   } // main()
136
```