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1  /*****
2  * SysTick_Handler
3  * Interrupt Service Routine for system tick counter
4  * The name of this function cannot be changed - it establishes the linkage
5  *****/
6  .syntax unified
7  .text
8  .thumb
9  .thumb_func
10 .align      4
11 .globl      SysTick_Handler
12 .type       SysTick_Handler, %function
13 SysTick_Handler:
14     push    {r4-r11, lr}
15     ldr     r4,=CurrentTask // r4 is address of current task
16     ldr     r5,[r4]         // r5 is current task
17     str     sp,[r5,#0]      // stack pointer is first thing in TCB
18     bl      scheduler
19     str     r0,[r4]         // save new CurrentTask
20     ldr     sp,[r0,#0]      // get sp from new current task
21     pop     {r4-r11, pc}
22
23     .thumb_func
24     .align      4
25     .globl      SVC_Handler
26     .type       SVC_Handler, %function
27 SVC_Handler:
28     push    {r4-r11, lr}
29     ldr     r4,=CurrentTask // r4 is address of current task
30     ldr     r5,[r4]         // r5 is current task
31     str     sp,[r5,#0]      // stack pointer is first thing in TCB
32     ldr     r0,=TCB         //replaced
33     str     r0,[r4]         // save new CurrentTask
34     ldr     sp,[r0,#0]      // get sp from new current task
35     pop     {r4-r11, pc}
36
37     .thumb_func
38     .align      4
39     .globl      Yield
40     .type       Yield, %function
41 Yield:
42     svc #0 // raise SVC interrupt
43     bx lr  // return from subroutine
44
45     .end
46

```