Challenge 3

D-BUGERZ

Write Embedded C code using ATmega16/32 µC to control a 7-Segment using two Push Buttons.

Requirements:

1. ✓ Configure the µC clock with 16Mhz Crystal Oscillator
2. ✓ The two Push Buttons are connected to pin 2 and 3 in PORTD
   ✓ Connect the Push Button using Pull Up configuration
3. ✓ The 7-Segment is connected directly to PORTA from PA1 PA7 without a decoder
4. ✓ The 7-Segment type is common cathode and enable the first 7-segment which its common pin controlled by PC6 pin
   ✓ If the Push Button 1 is pressed just increase the number appeared in the 7-Segment display, and if the number reaches the maximum number (9) then do nothing
   ✓ If the Push Button 2 is pressed just decrease the number appeared in the 7-Segment display, and if the number reaches the minimum number (0) then do nothing

Challenge 4

D-BUGERZ

Write Embedded C code using ATmega16/32 µC to control a 7-segment using a INT2

Requirements:

1. ✓ **Configure the µC clock with internal 1Mhz Clock.**
2. ✓ **The 7-segment is connected to first 4-pins of PORTC.**
3. ✓ **The 7-Segment type is common anode.**
4. ✓ **Connect the switch using Pull down configuration on INT2/PB2 pin.**
5. ✓ **When the INT2 is triggered just increase the number appeared in the 7-Segment display, and if the 7-segment reaches the maximum number (9) overflow occurs.**