

GpioSetup ()

- Configure registers LATA, ANSELA, TRISA
- ANSELA = 0x00 (digital I/O)
- TRISA = 0x00 (make all PORTA pins an output)
- LATA = 0x80 (sets RA7 = 1 and the counter bits RA0-RA5 = 0)

UserAppRun ()

- To implement the 6-bit counter, the LED's must light the binary number sequence 0 – 63, as 63 is the maximum value that can be represented by 6 bits (proof: $2^6 - 1 = 63$)
- Declare a counter variable that will keep track of the base 10 values from 0 – 63 (counter variable can be of type u8)
- With LATA initialized in GpioSetup (), this initial value needs to be stored in another reference variable since LATA will be changed in this function (the reference variable will also be of type u8, since 8 bits are allocated to the LATA register)

While (counter <= 63)

{

- Need a delay loop to burn through roughly 250ms for every time counter increments
- LATA++
- Counter++

}

- Once the function exits out of the while loop, set LATA back to its initial value by assigning the reference variable to LATA.