Iteration 1: Homework 2

- Toggle the last LED whenever we read
- Finish the new LED functions
  - LED_Toggle
  - LED_On
  - LED_Off
- Finish the new Digital functions
  - Digital_Init
  - Digital_GetBits

Notes on How The Registers Work

(To save you from having to look it all up)

- The DIGITAL_PORT register is LPC_GPIO2
- We're using bits 0-5 of that register
- DIGITAL_PORT->FIOMASK should have bits cleared for all input bits to unmask them
- DIGITAL_PORT->FIODIR should have bits cleared to make them inputs. Again, all other bits are also affected, so they should be written with their current contents.
- Consider using the macro MASK_RANGE
- The DIGITAL Pin Select Register is LPC_PINCON->PINSEL4
  - It should have all bits set to 0 that are going to be used as GPIO pins. This is done best with the macro MASK_RANGE_PAIRS
- The DIGITAL Pin Mode Register is LPC_PINCON->PINMODE4
  - It should also use the MASK_RANGE_PAIRS.
  - Drive both bits low for pullup
  - drive both high for pulldown
  - Drive first bit low and second high for no-resistor.