

```

/*Proj_1A_LEDDisplay
*****/

#include "Proj_1A_header_file.h"           //Provides details of resources provided by the complier and project_SW
                                           //including "setup_HW", the I2C subroutine and "SW_reset"

int main (void){                          //The "main" routine lies between a pair of {} brackets.
    unsigned int PORT_1=1;                //PORT_1 is an address in data memory initially set to 1 (binary 0000000000000001)
    setup_HW;                             //Note: that PORT_1 holds 16 bits (binary digits) of data

    for(int m = 1; m < 17; m++){          //Code between the {} brackets is repeated 16 times
        I2C_Tx_2_integers(PORT_1, PORT_1); //as m increments from 1 to 16 (m++ is shorthand for increment m)

        Timer_T0_10mS_delay_x_m(6);       //This subroutine generates a 10mS delay that is repeated 6 times
        PORT_1 = PORT_1 << 1;              //The contents of address "PORT_1" are shifted one place left
        }SW_reset;                        //every time that the "for-loop" is executed
    }

```