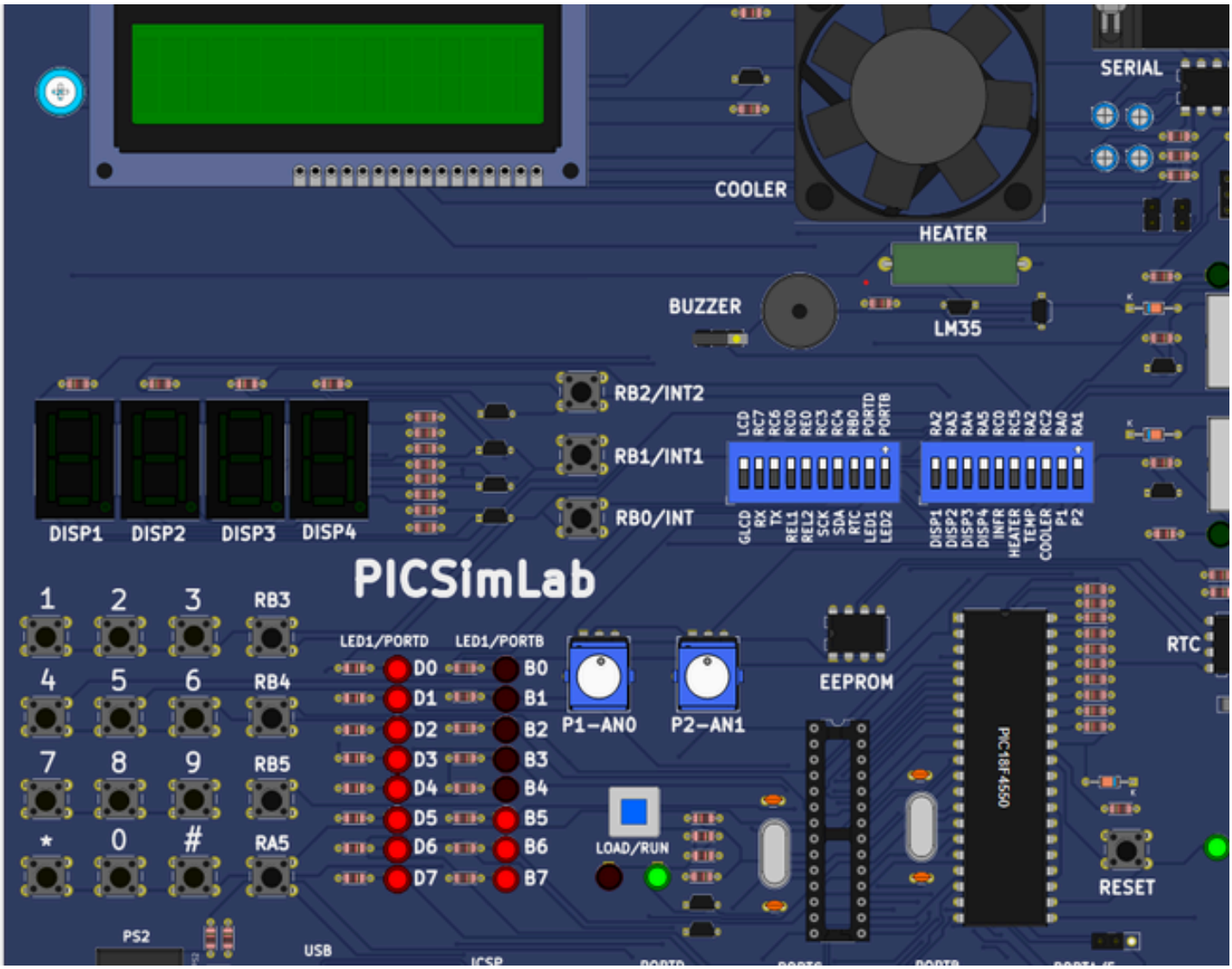
Practical No 5

Interface PIC18FXXX with LED & Blinking it using specified Delay:

INPUT:

```
#include <xc.h>
void delay(unsigned int time)
{
   unsigned int i, j;
   for(i = 0; i < time; i++)
   {
      for(j = 0; j < 5000; j++)
      {
      }
   }
}
void main(void) {
   TRISD = 0x00;
   LATD = 0xFF;
   while(1)
   {
      LATD = ~LATD;
      delay(200);
   }
   return;
}
```

OUTPUT:


SERIAL
COOLER
HEATER
BUZZER
LM35
RB2/INT2
RB1/INT1
RB0/INT
DISP1
DISP2
DISP3
DISP4
PICSimLab
1
2
3
RB3
4
5
6
RB4
7
8
9
RB5
*
0
#
RA5
LED1/PORTD
LED1/PORTB
D0
D1
D2
D3
D4
D5
D6
D7
B0
B1
B2
B3
B4
B5
B6
B7
P1-AN0
P2-AN1
LOAD/RUN
EEPROM
RTC
RESET
PS2
USB
ICSP
PIC18F4550

Practical No 4

Sorting the Numbers in Ascending and Descending Order:

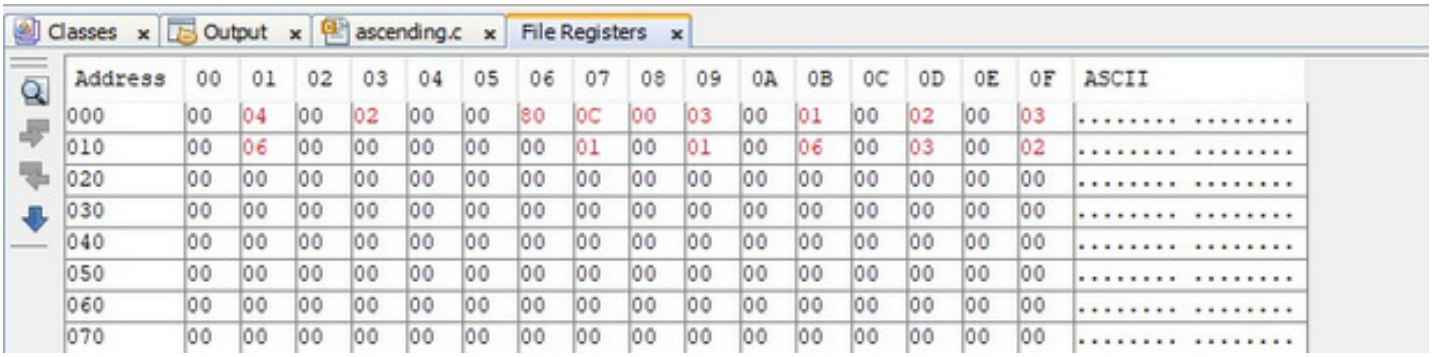
Ascending Order:

INPUT:

```
#include <xc.h>
#include <stdlib.h>
#include <pic18f4550.h>

int main(void) {
   int i, j, t;
   int a[] = {0x45, 0x03, 0x06, 0x13, 0x32, 0x02, 0x05, 0x23};

   for (j = 0; j <= 7; j++) {
      for (i = 0; i < 7; i++) {
         if (a[i] > a[i + 1]) {
            t = a[i];
            a[i] = a[i + 1];
            a[i + 1] = t;
         }
      }
   }
   TRISD = 0;
   for (i = 0; i <= 7; i++) {
      PORTD = a[i];
      for (int n = 0; n < 1000; n++)
         for (int k = 0; k < 100; k++);
   }
```

}

OUTPUT:



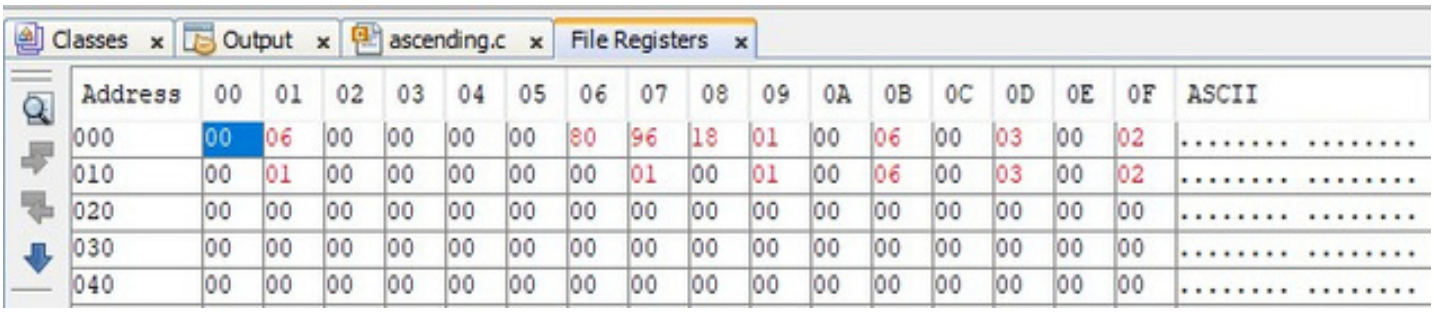
Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	ASCII
000	00	04	00	02	00	00	80	0C	00	03	00	01	00	02	00	03	....
010	00	06	00	00	00	00	00	01	00	01	00	06	00	03	00	02	....
020	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
050	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
060	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
070	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....

Descending Order:

```
#include <xc.h>
#include <stdlib.h>
#include <pic18f4550.h>

int main(void) {
   int i, j, t;
   int a[] = {0x45, 0x03, 0x06, 0x13, 0x32, 0x02, 0x05, 0x23};

   for (j = 0; j <= 7; j++) {
      for (i = 0; i < 7; i++) {
         if (a[i] < a[i + 1]) {
            t = a[i];
            a[i] = a[i + 1];
            a[i + 1] = t;
         }
      }
   }

   TRISD = 0;
   for (i = 0; i <= 7; i++) {
```

```
        PORTD = a[i];
        for (int n = 0; n < 1000; n++)
            for (int k = 0; k < 100; k++);
    }
}
```

OUTPUT:



Address	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F	ASCII
000	00	06	00	00	00	00	80	96	18	01	00	06	00	03	00	02	....
010	00	01	00	00	00	00	00	01	00	01	00	06	00	03	00	02	....
020	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
030	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....
040	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	....