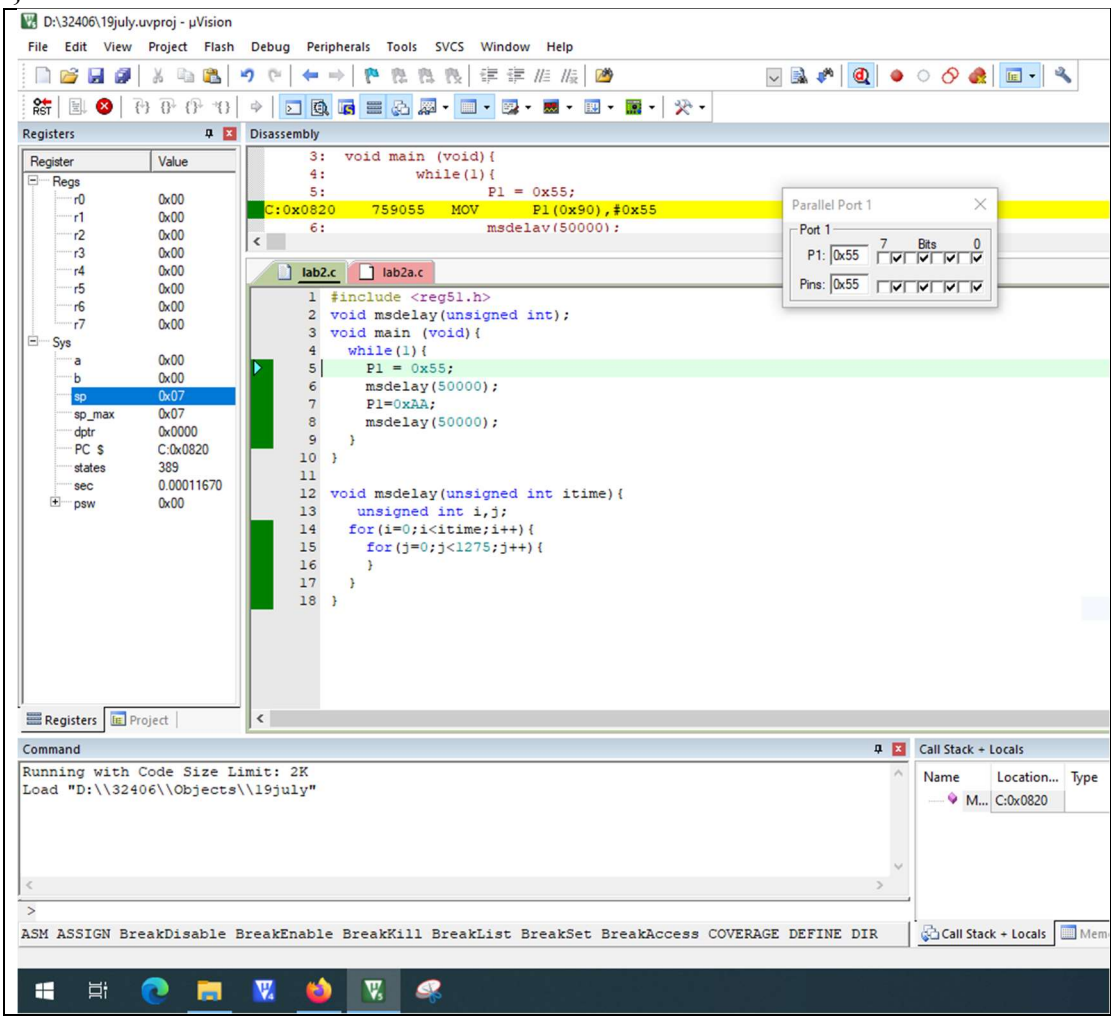
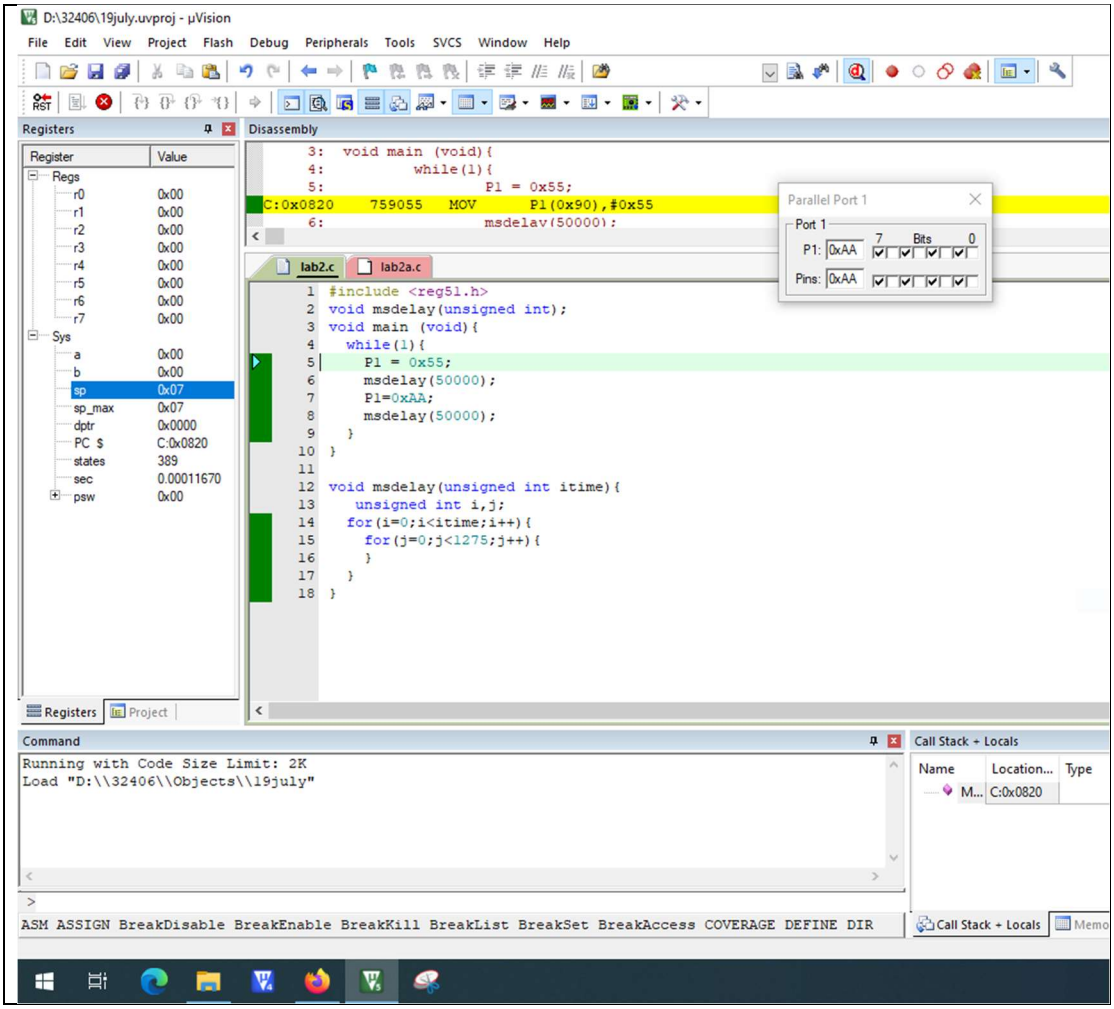
Title: Interfacing LEDs with 8051

1. Led blinking

```
#include <reg51.h>
 void msdelay(unsigned int);
 void main (void){
        while(1){
                P1 = 0x55;
                msdelay(50000);
                P1=0xAA;
                msdelay(50000);
        }
}

 void msdelay(unsigned int itime){
                unsigned int i,j;
        for(i=0;i<itime;i++){
                for(j=0;j<1275;j++){
                }
        }
}
```

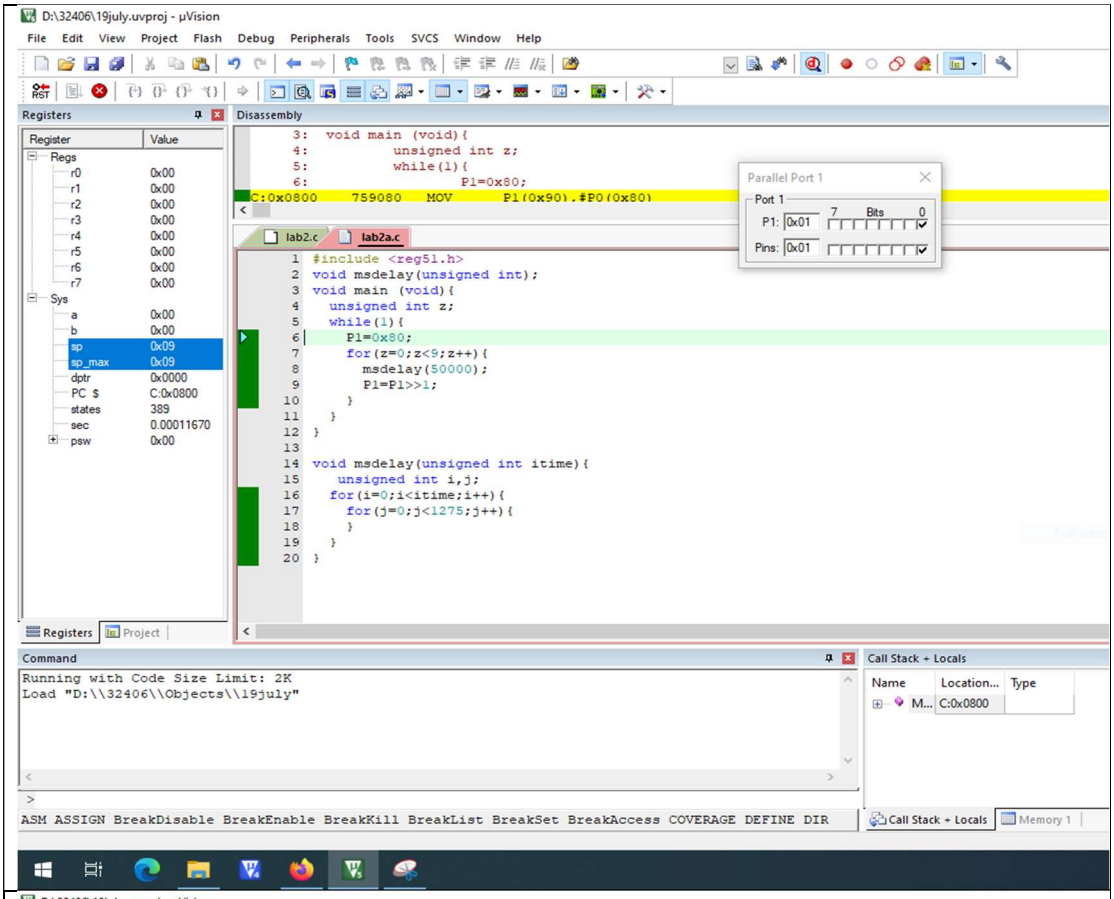


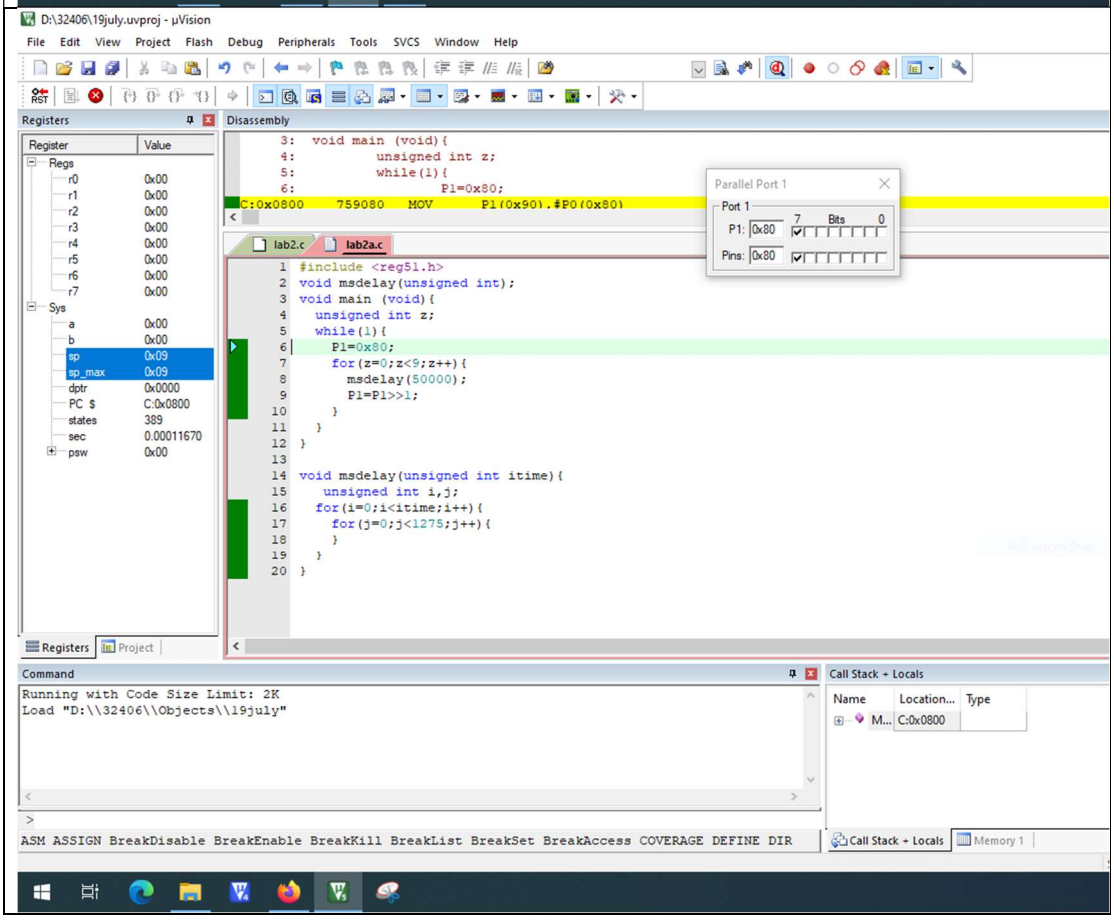


2. Led Chasing

```
#include <reg51.h>
 void msdelay(unsigned int);
 void main (void){
        unsigned int z;
        while(1){
                P1=0x80;
                for(z=0;z<9;z++){
                        msdelay(50000);
                        P1=P1>>1;
                }
        }
}

 void msdelay(unsigned int itime){
                unsigned int i,j;
        for(i=0;i<itime;i++){
                for(j=0;j<1275;j++){
                }
        }}
```


D:\32406\19july.uvproj - µVision
File Edit View Project Flash Debug Peripherals Tools SVCS Window Help
Registers
Register Value
Regs
r0 0x00
r1 0x00
r2 0x00
r3 0x00
r4 0x00
r5 0x00
r6 0x00
r7 0x00
Sys
a 0x00
b 0x00
sp 0x09
sp_max 0x09
dptr 0x0000
PC $ C:0x0800
states 389
sec 0.00011670
psw 0x00
Disassembly
3: void main (void){
4: unsigned int z;
5: while(1){
6: P1=0x80;
C:0x0800 759080 MOV P1(0x90),#P0(0x80)
Parallel Port 1
Port 1
P1: 0x01 7 Bits 0
Pins: 0x01
lab2.c
lab2a.c
1 #include <reg51.h>
2 void msdelay(unsigned int);
3 void main (void){
4 unsigned int z;
5 while(1){
6 P1=0x80;
7 for(z=0;z<9;z++){
8 msdelay(50000);
9 P1=P1>>1;
10 }
11 }
12 }
13
14 void msdelay(unsigned int itime){
15 unsigned int i,j;
16 for(i=0;i<itime;i++){
17 for(j=0;j<1275;j++){
18 }
19 }
20 }
Registers Project
Command
Running with Code Size Limit: 2K
Load "D:\\32406\\Objects\\19july"
ASM ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE DEFINE DIR
Call Stack + Locals
Name Location... Type
M... C:0x0800
Call Stack + Locals Memory 1


D:\32406\19july.uvproj - µVision
File Edit View Project Flash Debug Peripherals Tools SVCS Window Help
Registers
Register Value
Regs
r0 0x00
r1 0x00
r2 0x00
r3 0x00
r4 0x00
r5 0x00
r6 0x00
r7 0x00
Sys
a 0x00
b 0x00
sp 0x09
sp_max 0x09
dptr 0x0000
PC $ C:0x0800
states 389
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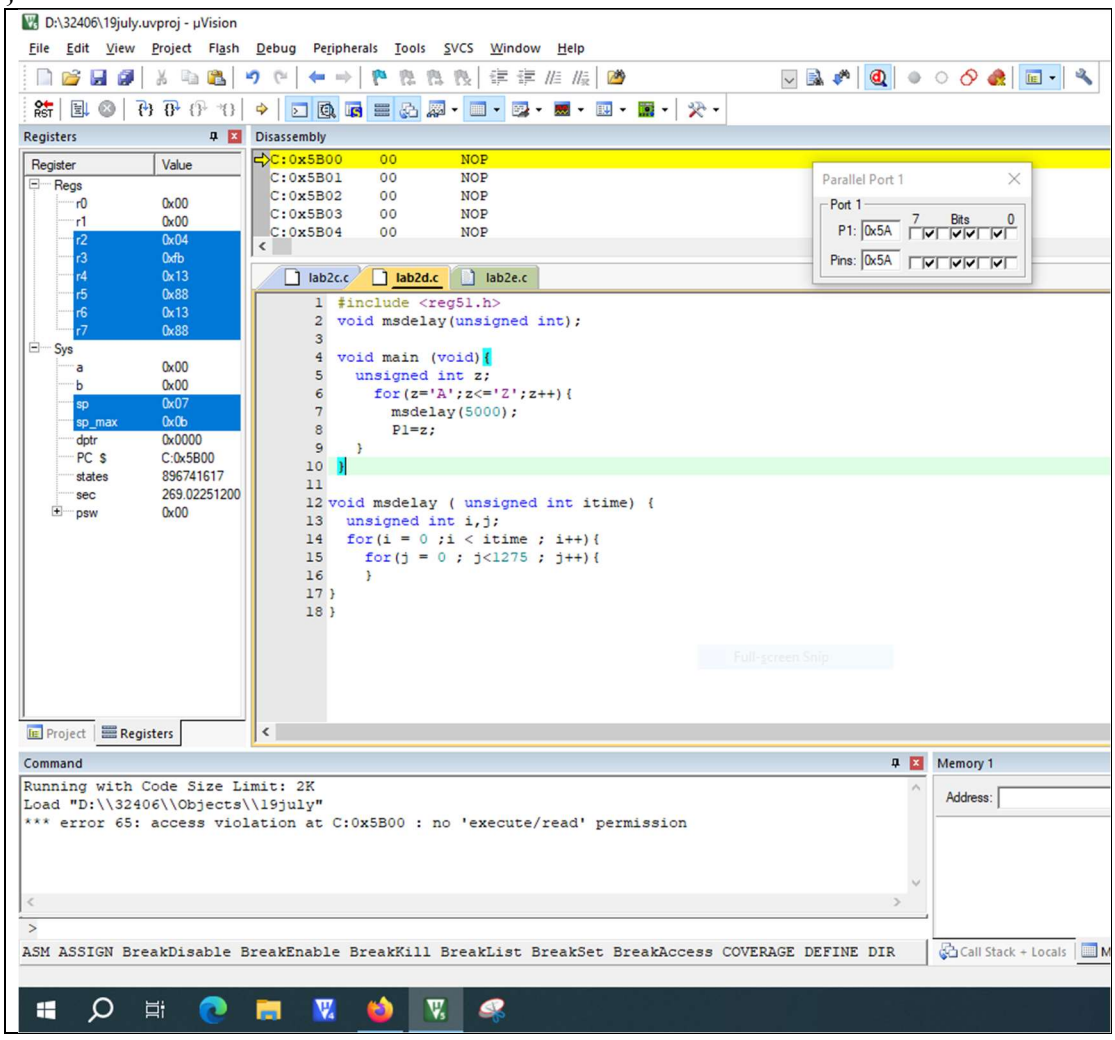
Disassembly
3: void main (void){
4: unsigned int z;
5: while(1){
6: P1=0x80;
C:0x0800 759080 MOV P1(0x90),#P0(0x80)
Parallel Port 1
Port 1
P1: 0x80 7 Bits 0
Pins: 0x80
lab2.c
lab2a.c
1 #include <reg51.h>
2 void msdelay(unsigned int);
3 void main (void){
4 unsigned int z;
5 while(1){
6 P1=0x80;
7 for(z=0;z<9;z++){
8 msdelay(50000);
9 P1=P1>>1;
10 }
11 }
12 }
13
14 void msdelay(unsigned int itime){
15 unsigned int i,j;
16 for(i=0;i<itime;i++){
17 for(j=0;j<1275;j++){
18 }
19 }
20 }
Registers Project
Command
Running with Code Size Limit: 2K
Load "D:\\32406\\Objects\\19july"
ASM ASSIGN BreakDisable BreakEnable BreakKill BreakList BreakSet BreakAccess COVERAGE DEFINE DIR
Call Stack + Locals
Name Location... Type
M... C:0x0800
Call Stack + Locals Memory 1

3. Display A to Z Ascii Values

```
#include <reg51.h>
 void msdelay(unsigned int);

 void main (void){
          unsigned int z;
                   for(z='A';z<='Z';z++){
                            msdelay(5000);
                            P1=z;
          }
 }

void msdelay ( unsigned int itime) {
          unsigned int i,j;
          for(i = 0 ;i < itime ; i++){
                   for(j = 0 ; j<1275 ; j++){
                   }
}
}
```

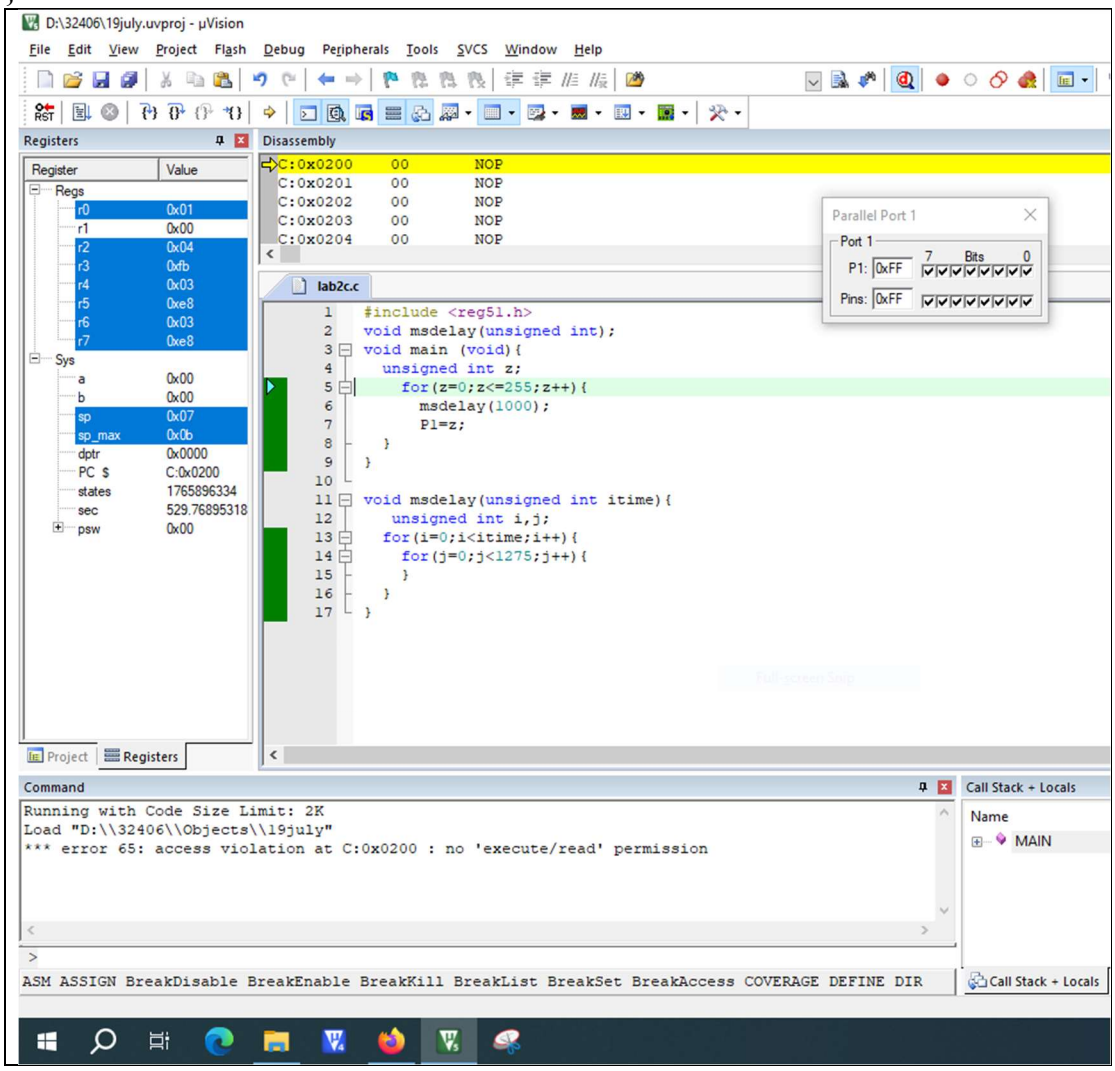


4. Hex Counter

```
#include <reg51.h>
 void msdelay(unsigned int);

 void main (void){
          unsigned int z;
                   for(z=0;z<=255;z++){
                            msdelay(100);
                            P1=z;
          }
 }

void msdelay ( unsigned int itime) {
          unsigned int i,j;
          for(i = 0 ;i < itime ; i++){
                   for(j = 0 ; j<1275 ; j++){
                   }
}
}
```



5. BCD Counter

```
#include <reg51.h>
 void msdelay(unsigned int);

 void main (void){
          unsigned int x,y;
          for(x=0;x<=9;x++){
                   for(y=0;y<=9;y++){
                            msdelay(5000);
                            P1=(x<<4)|ys;

          }
 }
}

void msdelay ( unsigned int itime) {
          unsigned int i,j;
          for(i = 0 ;i < itime ; i++){
                   for(j = 0 ; j<1275 ; j++){
                   }
}
}
```