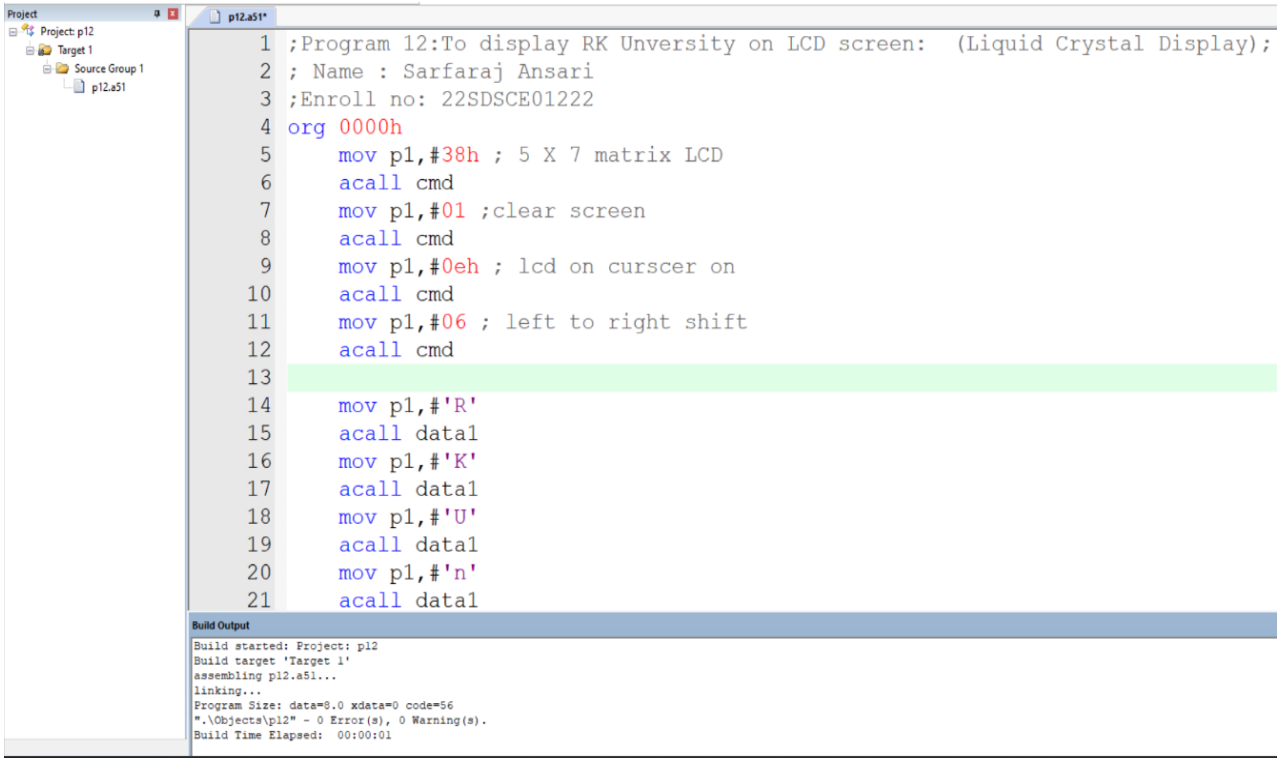
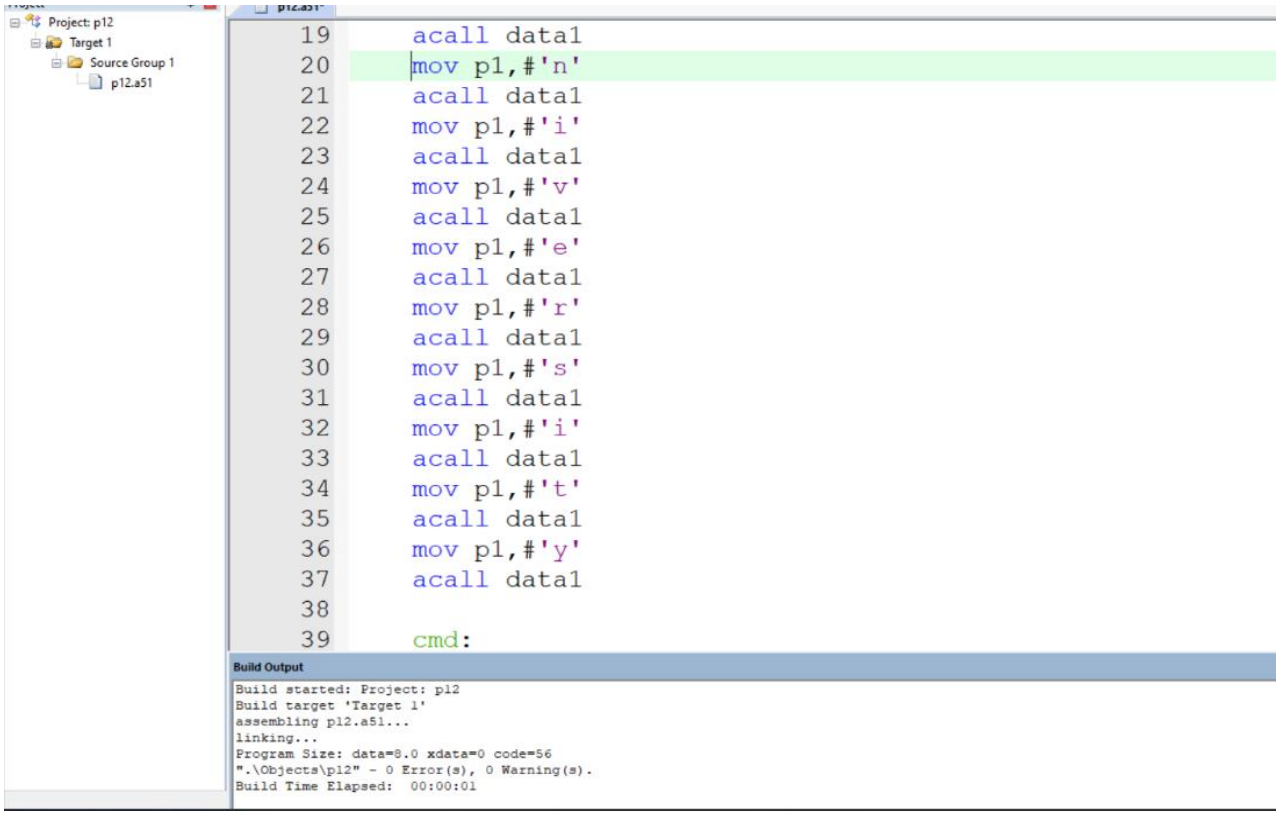
Program 12:To display RK University on LCD screen:



```
;Program 12:To display RK Unversity on LCD screen:  (Liquid Crystal Display);
; Name : Sarfaraj Ansari
;Enroll no: 22SDSCE01222
org 0000h
    mov p1,#38h ; 5 X 7 matrix LCD
    acall cmd
    mov p1,#01 ;clear screen
    acall cmd
    mov p1,#0eh ; lcd on curscer on
    acall cmd
    mov p1,#06 ; left to right shift
    acall cmd

    mov p1,#'R'
    acall data1
    mov p1,#'K'
    acall data1
    mov p1,#'U'
    acall data1
    mov p1,#'n'
    acall data1
```

```
Build Output
Build started: Project: p12
Build target 'Target 1'
assembling p12.a51...
linking...
Program Size: data=8.0 xdata=0 code=56
".\Objects\p12" - 0 Error(s), 0 Warning(s).
Build Time Elapsed:  00:00:01
```

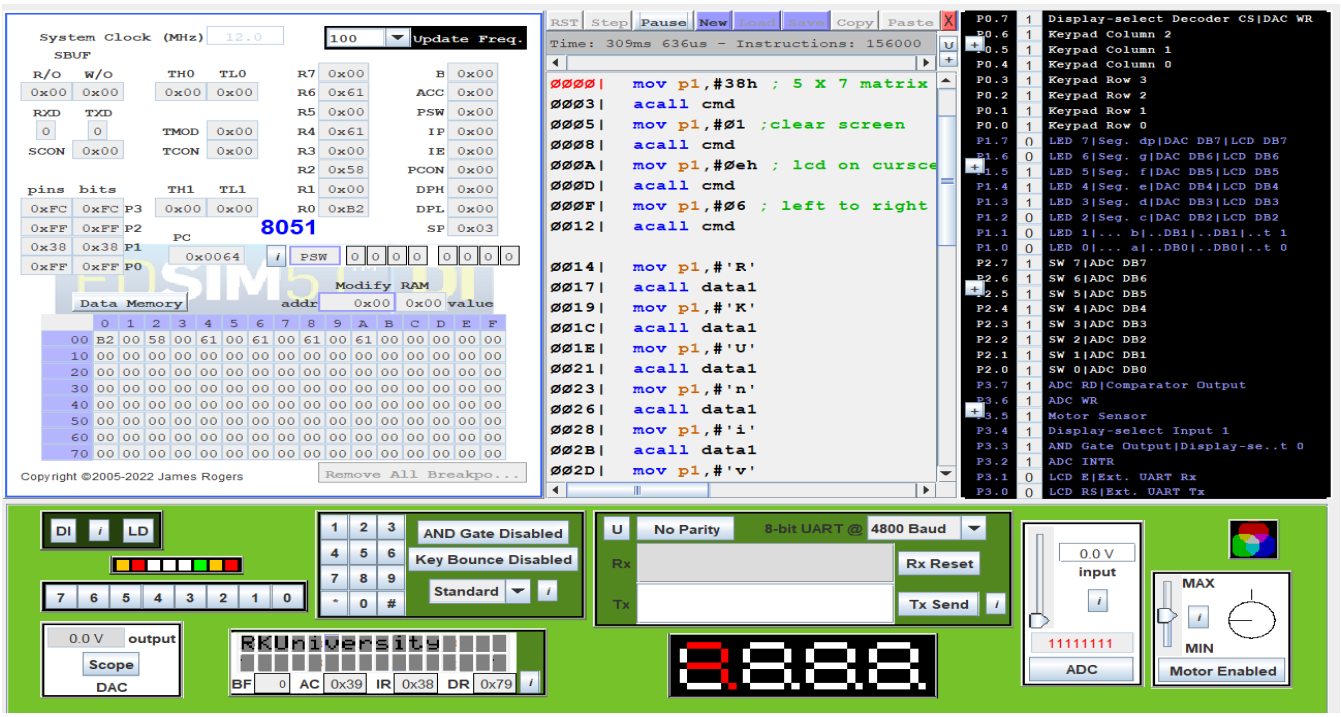


```
    acall data1
    mov p1,#'n'
    acall data1
    mov p1,#'i'
    acall data1
    mov p1,#'v'
    acall data1
    mov p1,#'e'
    acall data1
    mov p1,#'r'
    acall data1
    mov p1,#'s'
    acall data1
    mov p1,#'i'
    acall data1
    mov p1,#'t'
    acall data1
    mov p1,#'y'
    acall data1

    cmd:
```

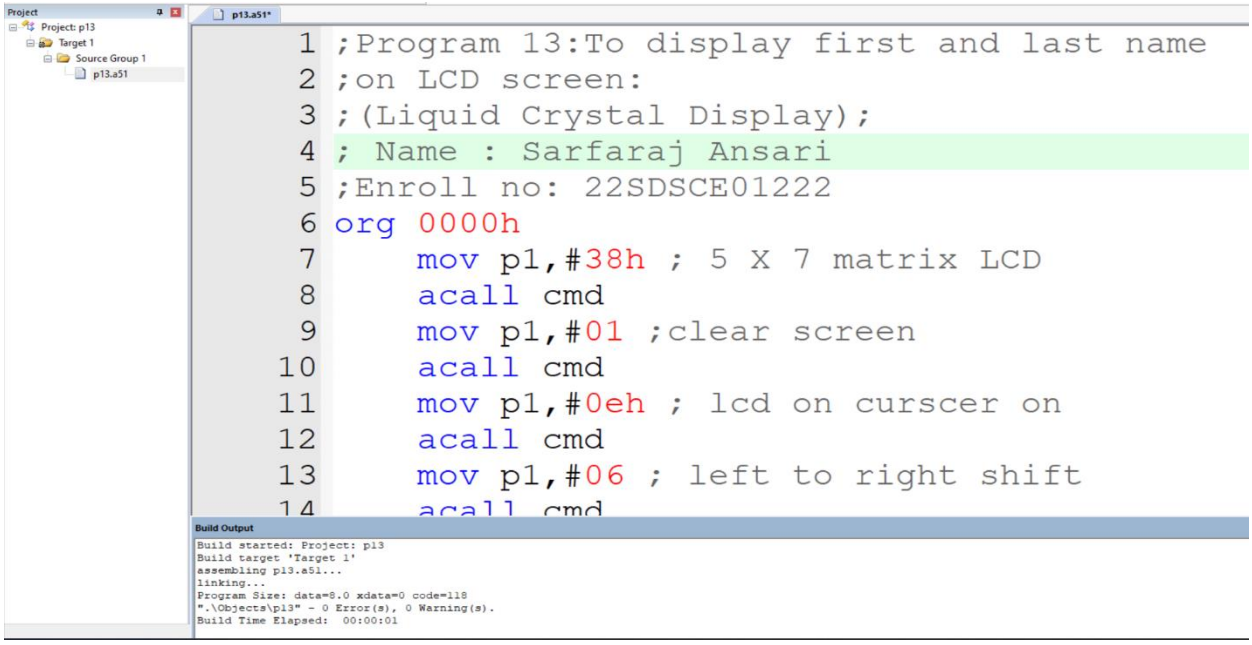
```
Build Output
Build started: Project: p12
Build target 'Target 1'
assembling p12.a51...
linking...
Program Size: data=8.0 xdata=0 code=56
".\Objects\p12" - 0 Error(s), 0 Warning(s).
Build Time Elapsed:  00:00:01
```

```
Project
  Project: p12
    Target 1
      Source Group 1
        p12.a51

p12.a51*

37      acall data1
38
39      cmd:
40      clr p3.0
41      setb p3.1
42      clr p3.1
43      acall delay
44      ret
45      data1:
46      setb p3.0
47      setb p3.1
48      clr p3.1
49      acall delay
50      ret
51
52      delay:
53      mov r0,#0ffh
54      here:djnz r0,here
55      ret
56
57      end

Build Output
Build started: Project: p12
Build target 'Target 1'
assembling p12.a51...
linking...
Program Size: data=8.0 xdata=0 code=56
".\Objects\p12" - 0 Error(s), 0 Warning(s).
Build Time Elapsed:  00:00:01
```

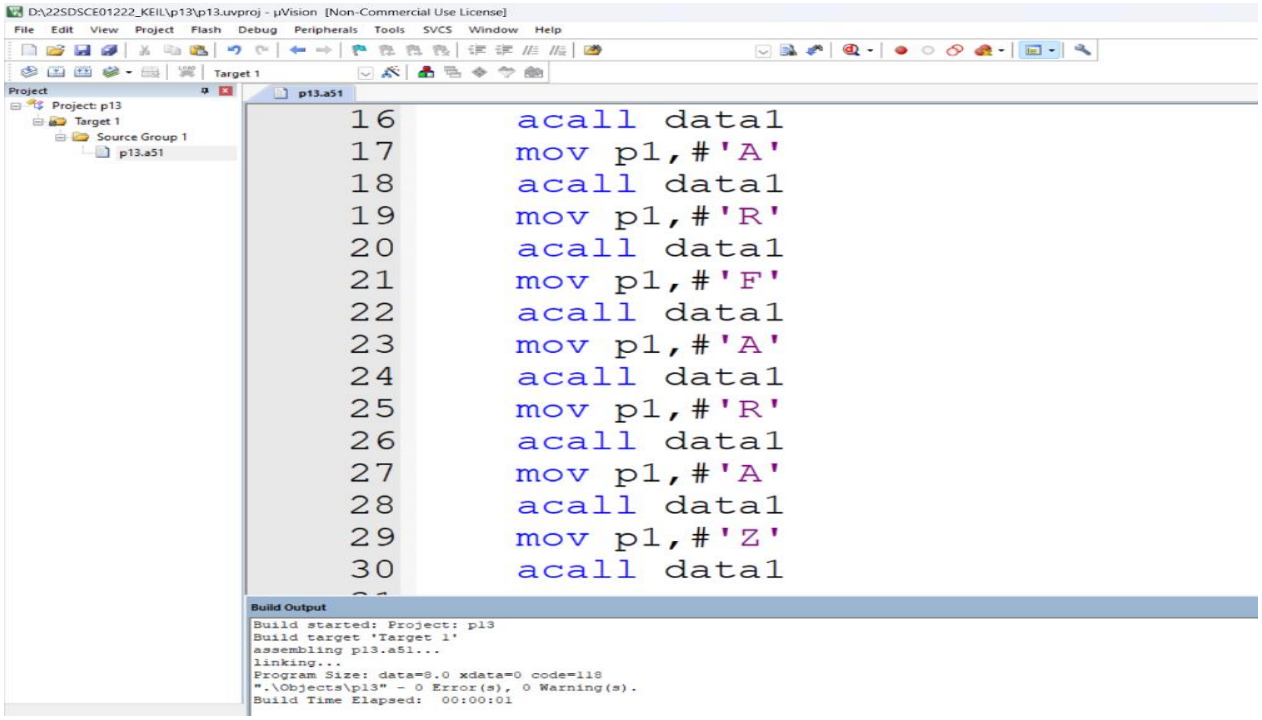
Output:



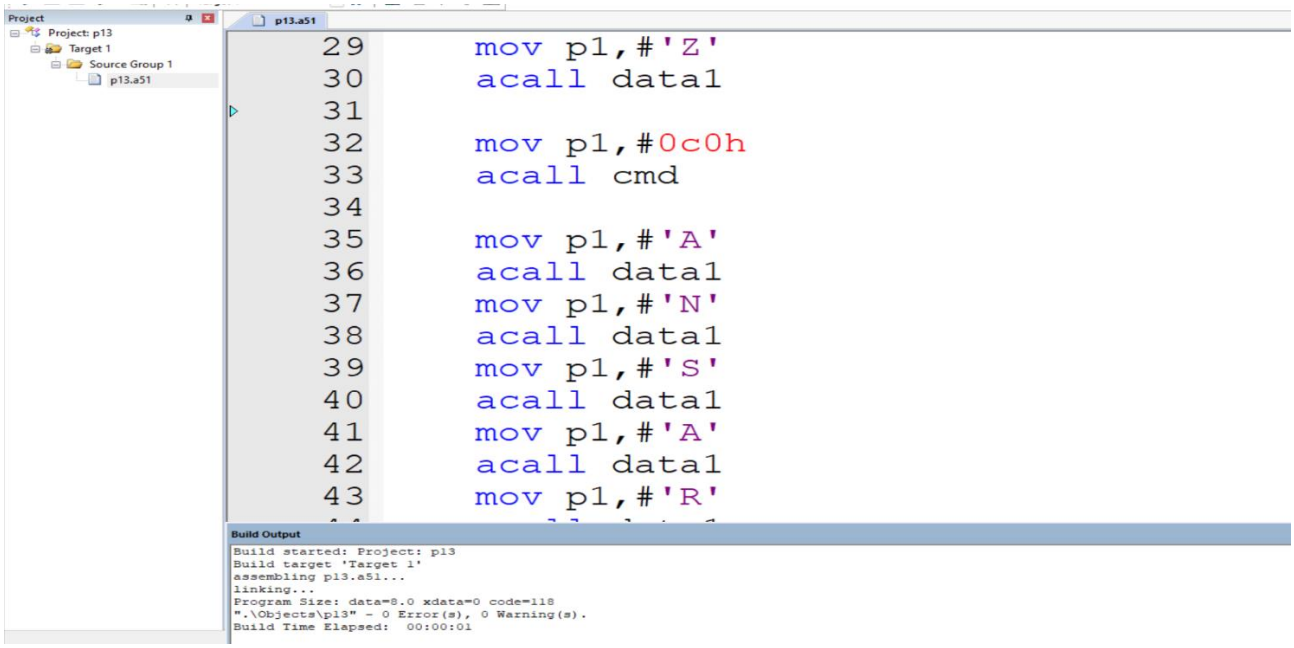
Program 13:To display first and last name on LCD screen:

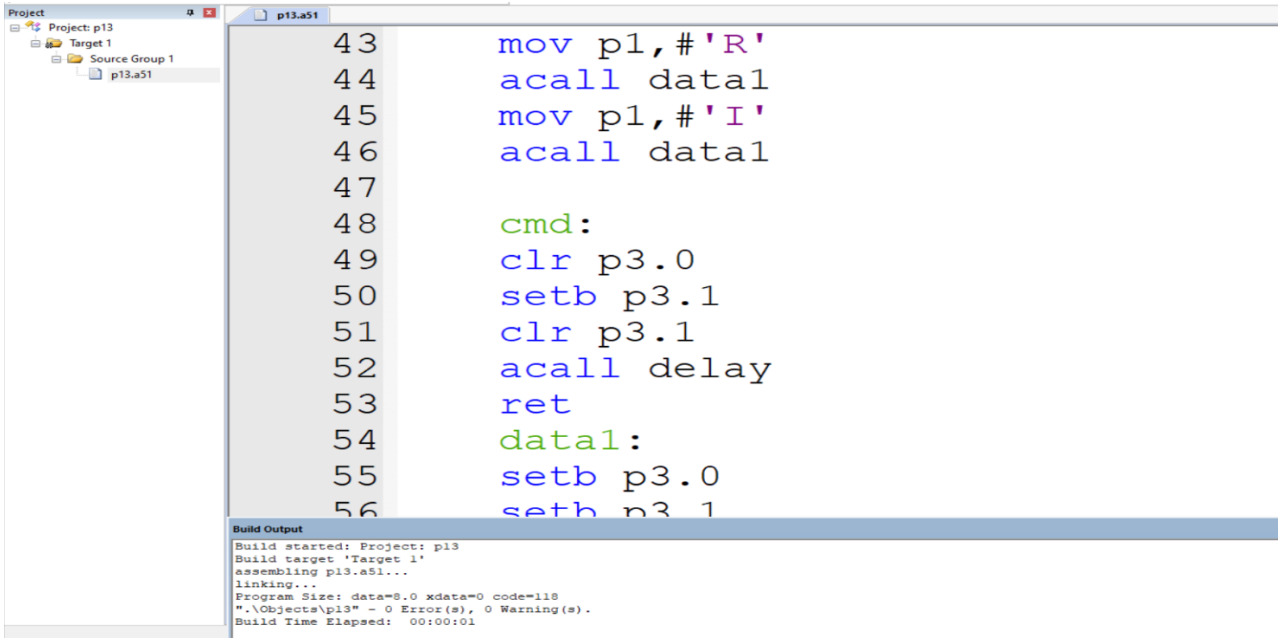


```
;Program 13:To display first and last name
;on LCD screen:
;(Liquid Crystal Display);
; Name : Sarfaraj Ansari
;Enroll no: 22SDSCE01222
org 0000h
    mov p1,#38h ; 5 X 7 matrix LCD
    acall cmd
    mov p1,#01 ;clear screen
    acall cmd
    mov p1,#0eh ; lcd on curscer on
    acall cmd
    mov p1,#06 ; left to right shift
    acall cmd
```



```
    acall data1
    mov p1,#'A'
    acall data1
    mov p1,#'R'
    acall data1
    mov p1,#'F'
    acall data1
    mov p1,#'A'
    acall data1
    mov p1,#'R'
    acall data1
    mov p1,#'A'
    acall data1
    mov p1,#'Z'
    acall data1
```


Project
Project: p13
Target 1
Source Group 1
p13.a51
p13.a51
29 mov p1,#'Z'
30 acall data1
31
32 mov p1,#0c0h
33 acall cmd
34
35 mov p1,#'A'
36 acall data1
37 mov p1,#'N'
38 acall data1
39 mov p1,#'S'
40 acall data1
41 mov p1,#'A'
42 acall data1
43 mov p1,#'R'
Build Output
Build started: Project: p13
Build target 'Target 1'
assembling p13.a51...
linking...
Program Size: data=8.0 xdata=0 code=118
".\Objects\p13" - 0 Error(s), 0 Warning(s).
Build Time Elapsed: 00:00:01


Project
Project: p13
Target 1
Source Group 1
p13.a51
p13.a51
43 mov p1,#'R'
44 acall data1
45 mov p1,#'I'
46 acall data1
47
48 cmd:
49 clr p3.0
50 setb p3.1
51 clr p3.1
52 acall delay
53 ret
54 data1:
55 setb p3.0
Build Output
Build started: Project: p13
Build target 'Target 1'
assembling p13.a51...
linking...
Program Size: data=8.0 xdata=0 code=118
".\Objects\p13" - 0 Error(s), 0 Warning(s).
Build Time Elapsed: 00:00:01

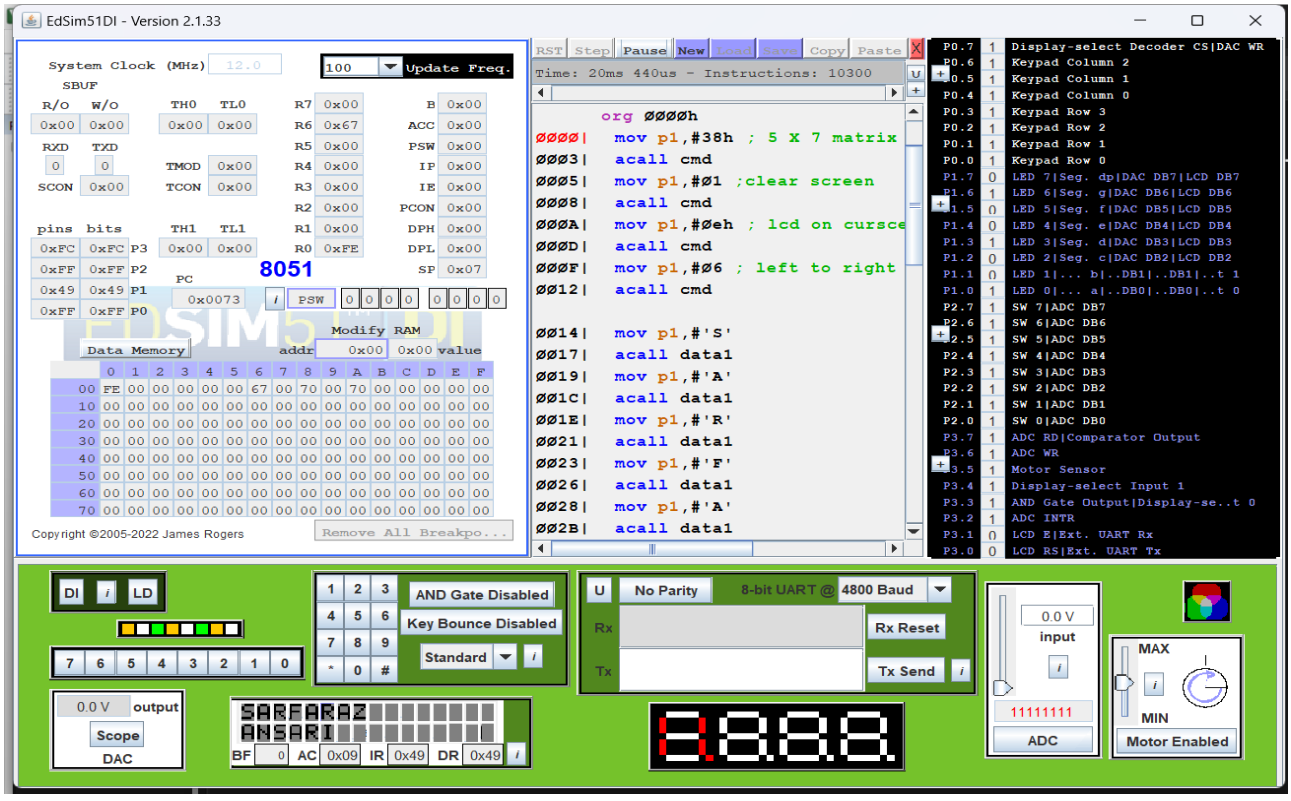
```
54        data1:
55        setb p3.0
56        setb p3.1
57        clr p3.1
58        acall delay
59        ret
60
61        delay:
62        mov r0,#0ffh
63        here:djnz r0,here
64        ret
65
66        end
```

Build Output

```
Build started: Project: p13
Build target 'Target 1'
assembling p13.a51...
linking...
Program Size: data=8.0 xdata=0 code=118
".\Objects\p13" - 0 Error(s), 0 Warning(s).
Build Time Elapsed:  00:00:01
```

Output:

`

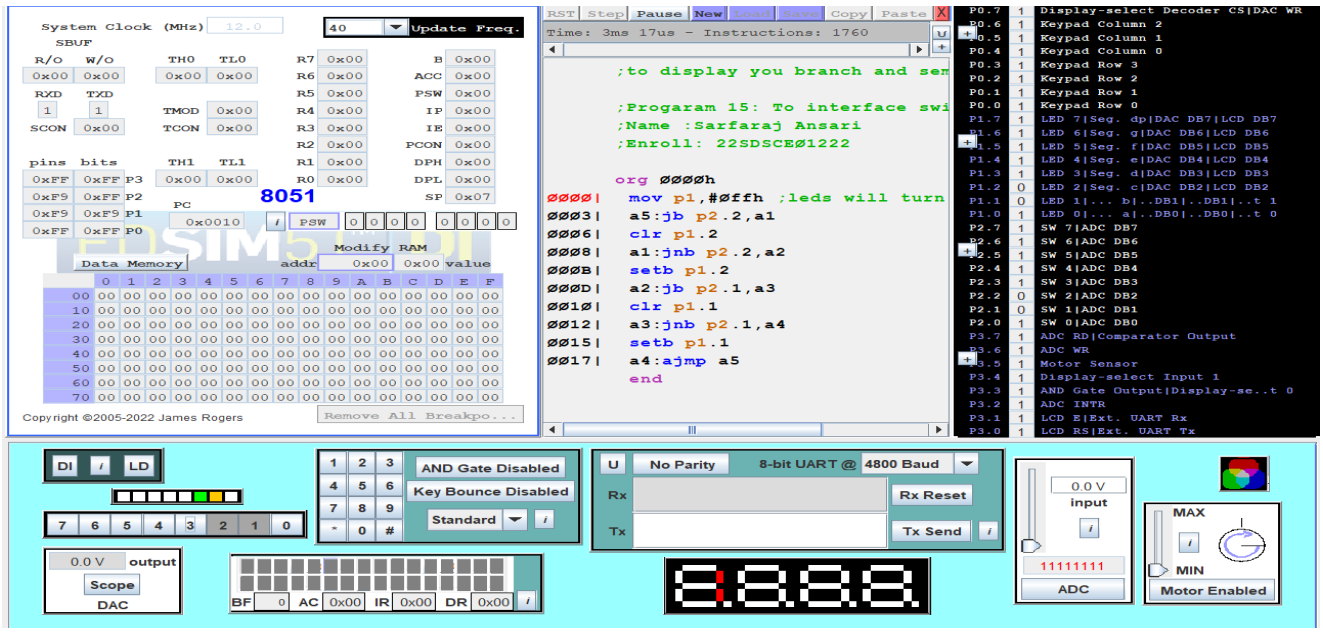


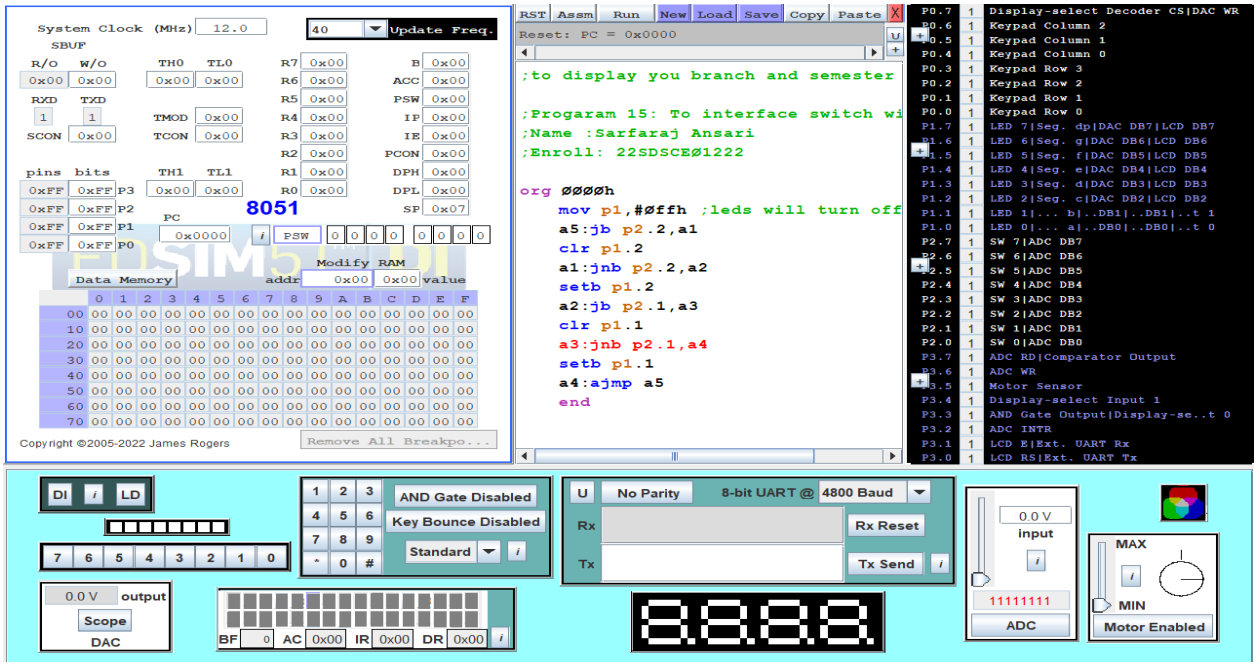
Program 15: To interface switch with 8051;

```
;to display you branch and semester on lcd:
;Progaram 15: To interface switch with 8051:
;Name :Sarfaraj Ansari
;Enroll: 22SDSCE01222
org 0000h
    mov p1,#0ffh ;leds will turn off
    a5:jb p2.2,a1
    clr p1.2
    a1:jnb p2.2,a2
    setb p1.2
    a2:jb p2.1,a3
    clr p1.1
    a3:jnb p2.1,a4
    setb p1.1
    a4:ajmp a5
    end
```

```
Build Output
Build started: Project: p15
Build target 'Target 1'
assembling p15.a51...
linking...
Program Size: data=8.0 xdata=0 code=25
".\Objects\p15" - 0 Error(s), 0 Warning(s).
```

Output:




System Clock (MHz) 12.0
40
Update Freq.
SBUF
R/O W/O TH0 TL0
RXD TXD
SCON TMOD TCON
pins bits TH1 TL1
8051
PC
PSW
Modify RAM
Data Memory
addr value
Copy right ©2005-2022 James Rogers
Remove All Breakpo...
RST Assm Run New Load Save Copy Paste
Reset: PC = 0x0000
;to display you branch and semester
;Progaram 15: To interface switch wi
;Name :Sarfaraj Ansari
;Enroll: 22SDSCE01222
org 0000h
mov p1,#0ffh ;leds will turn off
a5:jb p2.2,a1
clr p1.2
a1:jnb p2.2,a2
setb p1.2
a2:jb p2.1,a3
clr p1.1
a3:jnb p2.1,a4
setb p1.1
a4:ajmp a5
end
P0.7 Display-select Decoder CS|DAC WR
P0.6 Keypad Column 2
P0.5 Keypad Column 1
P0.4 Keypad Column 0
P0.3 Keypad Row 3
P0.2 Keypad Row 2
P0.1 Keypad Row 1
P0.0 Keypad Row 0
P1.7 LED 7|Seg. dp|DAC DB7|LCD DB7
P1.6 LED 6|Seg. g|DAC DB6|LCD DB6
P1.5 LED 5|Seg. f|DAC DB5|LCD DB5
P1.4 LED 4|Seg. e|DAC DB4|LCD DB4
P1.3 LED 3|Seg. d|DAC DB3|LCD DB3
P1.2 LED 2|Seg. c|DAC DB2|LCD DB2
P1.1 LED 1|... b|..DB1|..DB1|..t 1
P1.0 LED 0|... a|..DB0|..DB0|..t 0
P2.7 SW 7|ADC DB7
P2.6 SW 6|ADC DB6
P2.5 SW 5|ADC DB5
P2.4 SW 4|ADC DB4
P2.3 SW 3|ADC DB3
P2.2 SW 2|ADC DB2
P2.1 SW 1|ADC DB1
P2.0 SW 0|ADC DB0
P3.7 ADC RD|Comparator Output
P3.6 ADC WR
P3.5 Motor Sensor
P3.4 Display-select Input 1
P3.3 AND Gate Output|Display-se..t 0
P3.2 ADC INTR
P3.1 LCD E|Ext. UART Rx
P3.0 LCD RS|Ext. UART Tx
DI LD
7 6 5 4 3 2 1 0
0.0 V output
Scope
DAC
AND Gate Disabled
Key Bounce Disabled
Standard
BF AC IR DR
No Parity
8-bit UART @ 4800 Baud
Rx
Tx
Rx Reset
Tx Send
0.0 V
input
11111111
ADC
MAX
MIN
Motor Enabled