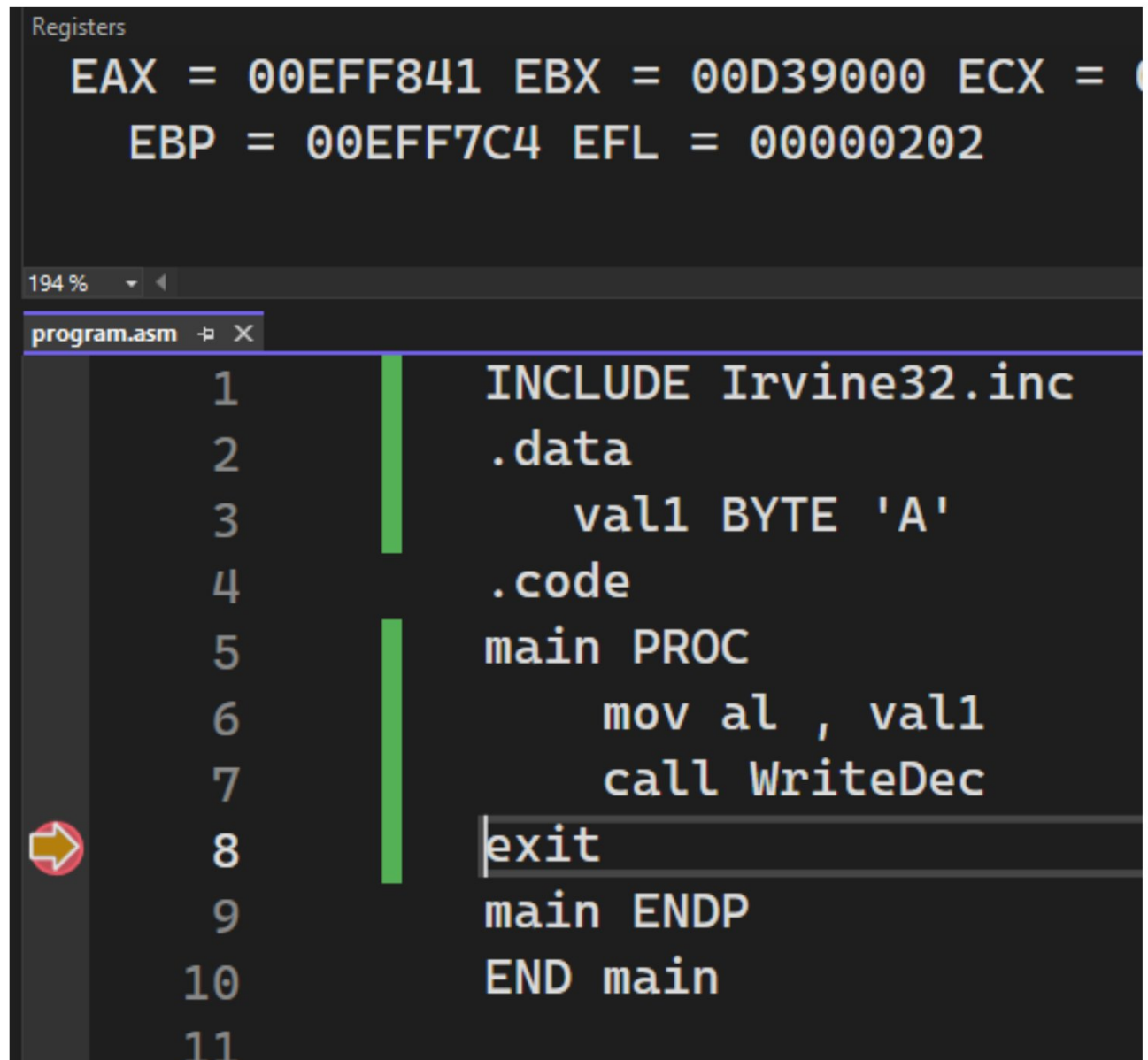


LAB 03

Q1



The screenshot shows a debugger interface. At the top, a 'Registers' window displays the following values: EAX = 00EFF841, EBX = 00D39000, ECX = 00000000, EBP = 00EFF7C4, and EFL = 00000202. Below this, a window titled 'program.asm' shows assembly code at 194% zoom. The code is as follows:

```
1  INCLUDE Irvine32.inc
2  .data
3      val1 BYTE 'A'
4  .code
5  main PROC
6      mov al, val1
7      call WriteDec
8  exit
9  main ENDP
10 END main
11
```

A yellow arrow icon is visible on the left side of the code window, pointing to line 8.

Q2

```
INCLUDE Irvine32.inc
.data
    num1 SBYTE -128
    num2 BYTE 255
    temp BYTE ?
.code
main PROC
exit
main ENDP
END main
```

Q3

```
INCLUDE Irvine32.inc
.data
    greeting BYTE "Good Night" , 0
.code
main PROC
exit
main ENDP
END main
```

Q4

```
INCLUDE Irvine32.inc
.data
    zeros BYTE 10 DUP(0)
    words BYTE 5 DUP(?)
.code
main PROC
exit
main ENDP
END main
```

Q5

Registers

EAX = 012FFA30 EBX = 00000041 ECX = 0
EBP = 012FF9E8 EFL = 00000246

194 %

program.asm

```
1  INCLUDE Irvine32.inc
2  .data
3  .code
4  main PROC
5      mov ebx, 0
6      mov bx, 65
7  exit
8  main ENDP
9  END main
10
```

Registers

EAX = 006AFB90 EBX = 00000041 ECX = 00
EBP = 006AFB48 EFL = 00000246

194 %

program.asm

```
1  INCLUDE Irvine32.inc
2  .data
3  .code
4  main PROC
5      mov ebx, 0
6      mov bx, 41h
7  exit
8  main ENDP
9  END main
10
```

Registers

EAX = 007BF9AC EBX = 00000041 ECX = 00000000
EDX = 00000000 EIP = 00401000
EBP = 007BF964 EFL = 00000246

194 %

program.asm

```
1  INCLUDE Irvine32.inc
2  .data
3  .code
4  main PROC
5      mov ebx, 0
6      mov bx, 01000001b
7  exit
8  main ENDP
9  END main
10
```

Registers

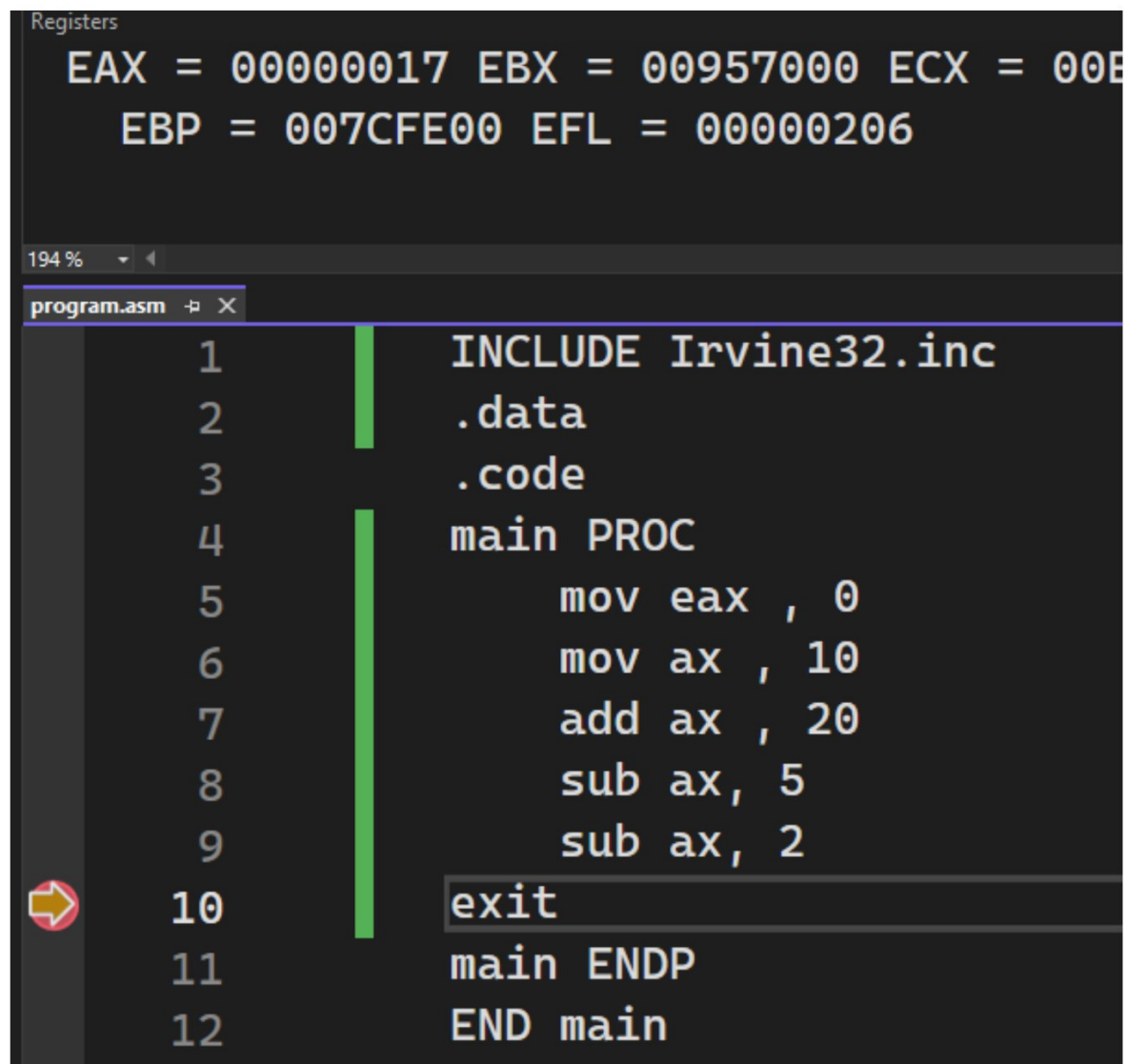
EAX = 00CFFEC4 EBX = 00000041 ECX = 00000000
EDX = 00000000 EIP = 00401000
EBP = 00CFFE7C EFL = 00000246

194 %

program.asm

```
1  INCLUDE Irvine32.inc
2  .data
3  .code
4  main PROC
5      mov ebx, 0
6      mov bx, 'A'
7  exit
8  main ENDP
9  END main
10
```

Q6



The image shows a debugger window with two panes. The top pane, titled 'Registers', displays the following values: EAX = 00000017, EBX = 00957000, ECX = 00E, EBP = 007CFE00, and EFL = 00000206. The bottom pane shows an assembly file named 'program.asm' at 194% zoom. The code is as follows:

```
1      INCLUDE Irvine32.inc
2      .data
3      .code
4      main PROC
5          mov eax , 0
6          mov ax , 10
7          add ax , 20
8          sub ax, 5
9          sub ax, 2
10     exit
11     main ENDP
12     END main
```

A green vertical bar highlights the first column of the assembly code. A red arrow icon points to line 10, which contains the 'exit' instruction.

Q7

```
INCLUDE Irvine32.inc  
.  
.data  
.  
.code  
main PROC  
    mov eax,10000h  
    add eax,40000h  
    sub eax,20000h  
    call DumpRegs  
  
exit  
main ENDP  
END main
```