



20F-0292_BCS 4E_LAB 1

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PROBLEM STATEMENT: Make 4 variables var1 to var4 respectively. Store 3 different values in 1st 3 variables. Use register to add 1st 2 variables. then subtract its answer from variable 03. Take input from user in var4. then exchange var4 and var 3. at each step show register values to screen.

SOLUTION:

```
INCLUDE Irvine32.inc
```

```
.data
msg byte "After Addition: ",0
msg1 byte "After Subtraction: ",0
msg2 byte "After Swapping: ",0
msg3 byte "Enter Number to Swapp: ",0
var1 dword 9
var2 dword 3
var3 dword 5
var4 dword ?
.code
main PROC
    mov eax,var1
    mov ebx,var2
    mov ecx,var3
    mov edx, offset msg
    call writeString
    add eax,ebx
    call writedec
    call crlf

    mov edx, offset msg1
    call writeString
    sub eax,ecx
    call writedec
    call crlf

    mov var3,eax
    call writedec
    call crlf

    mov ebx,var3
    mov edx, offset msg3
    call writeString
    mov eax,var4
    call readdec

    mov edx, offset msg2
    call writeString
    xchg ebx , eax
    call writedec
    call crlf
    call WaitMsg
    exit
main ENDP
END main
```

Microsoft Visual Studio Debug Console

After Addition: 12

After Subtraction: 7

7

Enter Number to Swapp: 10

After Swapping: 7

Press any key to continue...

C:\Users\saadg\source\repos\Assembly_Project3\Debug\Assembly_Project3.exe (process 1220) exited

To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close when debugging stops.

Press any key to close this window . . .