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**Computer Science 2253 Lab Experience Eight**

Objectives:

1. Writing loops in Assembler.
2. Array manipulation in Assembler.
3. Utilizing predefined macros from the irvine32.inc library.

The purpose of this lab is for you to create your own assembly language instructions. I recommend you load a project solution into Visual C++ express/studio so you do not have to reset the environment variables each time you are to create an assembler program.

NOTE: If you have changed the location of the Irvine libraries, you will have to correct the project properties settings of the project so Visual Studio can locate these files. The authors website contains detail instructions on this is accomplished. The website is <http://kipirvine.com/asm/gettingStarted/index.htm>

**What you are to do:**

1. Do problems 10 and 11 on page 187.

For these problems write a procedure using the Irvine 32 library functions to display the contents of the two arrays.

Copy each program into a word document and paste the output window of the program below the source code in a word document.

**What to hand in:**

1. Compress the .asm files and the word document into a single file called {yourName}Lab8.zip. For example TimWrennLab8.zip.
2. Place the compressed file into the D2L Assignment folder labeled Lab Eight.
3. Hand-in hard copies of the programs created in this lab.
4. Hand-in a hard copy of the word document.

Due Date: As specified by the drop box date.

Problem 10:

INCLUDE Irvine32.inc

.data

prev DWORD ?

next DWORD ?

value DWORD ?

count DWORD ?

total DWORD ?

.code

main PROC

mov ecx, 47

mov value, 1

mov prev, -1

mov eax, 1

call fibonacci

main ENDP

fibonacci PROC

L1:

mov count, ecx

mov ebx, value

add ebx, prev

mov total, ebx

mov ebx, value

mov prev, ebx

mov eax, total

mov value, eax

call WriteInt

loop L1

fibonacci ENDP

END main

