# Project 1 Report

This project asked for displaying the first seven values of Fibonacci which are 1, 1, 2, 3, 5, 8 and 13. I use EAX, EBX, and EDX to store the numbers, and for the first element in Fibonacci is a special one, I use call DumpRegs to print it at the beginning because the first element is given and we can't get it from the summation of other two elements. I initiated EBX with 0, and EDX with 1, for the purpose that every element after 0 and 1 is the summation of the previous two. Because the result is for the first seven elements, I initiate the ECX with 6 in order to calculate the rest of the elements and display them in the console. In each loop, I add EAX and EDX to get the next element and use EBX as a transition register to swap the number after display the number in the console. The EAX’s value in output is the result which are 1 1 2 3 5 8 and 0D (13 in hexadecimal), it’s correct.

Source Code:

TITLE Project 1 (p1.asm)

; Program Description: First seven values in Fibonacci

; Author: Chen Zhang

; Creation Date: 10/16/2019

; Revisions:

; Date: Modified by:

INCLUDE Irvine32.inc

.data

.code

main PROC

mov eax, 1

call DumpRegs

mov ebx, 0

mov edx, 1

mov ecx, 6

L1:

mov eax, ebx

add eax, edx

call DumpRegs

mov ebx, edx

mov edx, eax

Loop L1

exit

main ENDP

END main

Output:

