Quiz No: 02

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Computer Organization and Assembly Language

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Problem # 1

Write a code in assembly to print first 10 numbers of Fibonacci Series.

Source Code:

```
.686
.MODEL flat, stdcall
.STACK
INCLUDE Irvine32.inc
.data
fiboSeries DWORD 10 DUP(?)
first DWORD 1 DUP(1)
second DWORD 1 DUP(1)
next   DWORD 1 DUP(?)
.code
main PROC
mov edx, 0     ; index counter
mov ecx, 10
L1:
   mov eax, first
   mov fiboSeries[edx], eax
   add edx, 4

   add eax, second        ; eax = first + second
   mov next, eax          ; next = eax

   mov eax, second        ; eax = second
   mov first, eax         ; first = second

   mov eax, next          ; eax = next
```

```
    mov second, eax          ; second = next

    loop L1

mov ecx, 10          ; loop counter

mov edx, 0           ; index counter

L2:

    mov eax, fiboSeries[edx]

    call WriteInt

    add edx, 4

    loop L2

exit

main ENDP

end main
```

OUTPUT:

```
D:\Code Playground\Assembly>make32 quiz2
Microsoft (R) Macro Assembler Version 6.15.8803
Copyright (C) Microsoft Corp 1981-2000.  All rights reserved.

 Assembling: quiz2.asm
Microsoft (R) Incremental Linker Version 6.00.8447
Copyright (C) Microsoft Corp 1992-1998. All rights reserved.

D:\Code Playground\Assembly>quiz2.exe
+1+1+2+3+5+8+13+21+34+55
D:\Code Playground\Assembly>
```

The End