

Source File: lab10.asm
Input: none
Output: Standard Output
Value: 1

Modify the example assembly language program used in class to compute

$$1000_{16} + 1000_8 + 1000_2 + 1000_{10}$$

Use only the eax register and use immediate operands for the addends. Show the contents of the registers after each step in the calculation. Your program should adhere to ordinary rules of algebraic precedence and associativity. Add an identification section as shown below to the top of your source file.

```
; Your name
; CS 3304
; Lab 10
```

A sample execution sequence is shown in Figure 1. To use the `Makefile` as distributed in class, add a target of `lab10` to `targetsAsmLanguage`.

```

1 newuser@csunix ~/3304/10> cp /usr/local/3304/src/Makefile .
2 newuser@csunix ~/3304/10> touch lab10.asm
3 newuser@csunix ~/3304/10> make
4 nasm -f elf32 -l lab10.lst -o lab10.o lab10.asm -I/usr/local/3304/include/ -I.
5 ld -m elf_i386 --dynamic-linker /lib/ld-linux.so.2 -o lab10 lab10.o \
6 /usr/local/3304/src/Along32.o -lc
7 newuser@csunix ~/3304/10> ./lab10
8
9     EAX=00000000  EBX=F7733FBC  ECX=F772DBBF  EDX=F7721480
10    ESI=FFB2050C  EDI=080481B0  EBP=00000000  ESP=FFB20500
11    EIP=080481B5  EFL=00000282  CF=0  SF=1  ZF=0  OF=0  AF=0  PF=0
12
13
14    EAX=00001000  EBX=F7733FBC  ECX=F772DBBF  EDX=F7721480
15    ESI=FFB2050C  EDI=080481B0  EBP=00000000  ESP=FFB20500
16    EIP=080481BF  EFL=00000282  CF=0  SF=1  ZF=0  OF=0  AF=0  PF=0
17
18
19    EAX=00001200  EBX=F7733FBC  ECX=F772DBBF  EDX=F7721480
20    ESI=FFB2050C  EDI=080481B0  EBP=00000000  ESP=FFB20500
21    EIP=080481C9  EFL=00000206  CF=0  SF=0  ZF=0  OF=0  AF=0  PF=1
22
23
24    EAX=00001208  EBX=F7733FBC  ECX=F772DBBF  EDX=F7721480
25    ESI=FFB2050C  EDI=080481B0  EBP=00000000  ESP=FFB20500
26    EIP=080481D1  EFL=00000202  CF=0  SF=0  ZF=0  OF=0  AF=0  PF=0
27
28
29    EAX=000015F0  EBX=F7733FBC  ECX=F772DBBF  EDX=F7721480
30    ESI=FFB2050C  EDI=080481B0  EBP=00000000  ESP=FFB20500
31    EIP=080481DB  EFL=00000216  CF=0  SF=0  ZF=0  OF=0  AF=1  PF=1
32
33 newuser@csunix ~/3304/10>
```

Figure 1. Commands to Assemble, Link, & Run Lab 10