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//student id: 201543995

#include <stdlib.h>
int main (void) {
char msg1[] = "How Many Numbers: ";
char msg2[] = "Enter Number: ";
char fmt1[] = "Number of positive Numbers : %d ";
char fmt2[] = "Number of Negative Numbers : %d";
char fmt3[] = "Number of zeros: %d";
int count=0;
int num=0;
_asm {

lea eax, count
push eax
call scanf
lea eax, msg1    // It Stores address of msg in accumulator
push eax        // Push address onto stack

call printf       // Call library routine
add esp ,8        // Clean up stack



MOV BL,00H    //register which counts negative numbers
MOV CL,00H   //register which counts postive numbers
lea eax,count

        loop: mov ecx, eax   //stores "how many numbers" to coounter ecx


lea eax, num    //it stores address of num in accumulator
push ecx        //save ecx on stack
push eax        //Push address onto stack
call scanf      // Call library routine

lea eax, msg2    // It Stores address of msg in accumulator
push eax        // Push address onto stack
call printf       // Call library routine

pop ecx         //restore ecx value
add esp, 8      //clean stack

SHL AL,01        //performs a logical shift to on the destination operand,


JNC L1          //jump when carry is zero to L1
JC L2           //jump when carry is one to L2

L1: INC CL                //increment in positive number
L2: INC BL                //increment in positive number

DEC DL

JNZ LOOP

//for positive numbers
lea eax,cl         //load address of cl to eax
```

```
push eax             //push address
lea eax ,fmt1        //load fmt1
push fmt1            //push fmt1
call printf       //print dara from stack. last in first out
add esp,8          //clear stack

//for negative numbers
lea eax,bl         //load address of cl to eax
push eax             //push address
lea eax ,fmt2        //load fmt2
push fmt3            //push fmt2
call printf       //print dara from stack. last in first out
add esp,8          //clear stack


}
return 0;
}
```