SOME INTRODUCTION:

General registers

For the second tutorial we will be exploring more on the usage of the registers. General register are the one we use most of the time. Most of the instructions are performed on these registers. They all can be broken down into 16 and 8 bit registers.

32 bits : EAX EBX ECX EDX
16 bits : AX BX CX DX
8 bits : AH AL BH BL CH CL DH DL

The "H" and "L" suffix on the 8 bit registers stand for high byte and low byte. As you may have noticed, our codes are making use of the 8 bits registers.

Let's see their individual main use

EAX,AX,AH,AL :

Called the Accumulator register.

It is used for I/O port access, arithmetic, interrupt calls, etc...

EBX,BX,BH,BL :

Called the Base register

It is used as a base pointer for memory access

Gets some interrupt return values

ECX,CX,CH,CL :

Called the Counter register

It is used as a loop counter and for shifts

Gets some interrupt values

EDX,DX,DH,DL :

Called the Data register

It is used for I/O port access, arithmetic, some interrupt calls.

Revisiting the INT command

The INTERRUPT command has an extension to perform additional task. For now, have a look at these extensions:

```
INT 21,0  Program terminate
INT 21,1  Keyboard input with echo
INT 21,2  Display output
INT 21,3  Wait for auxiliary device input
INT 21,4  Auxiliary output
INT 21,5  Printer output
INT 21,6  Direct console I/O
INT 21,7  Wait for direct console input without echo
INT 21,8  Wait for console input without echo
INT 21,9  Print string
INT 21,A  Buffered keyboard input
INT 21,B  Check standard input status
INT 21,C  Clear keyboard buffer, invoke keyboard function
INT 21,D  Disk reset
INT 21,E  Select disk
```

You may have noticed that you have used INT 21, 0 from the previous tutorial and also quite a few of it again in this tutorial. In additional to that notice that we also invoke the use of

INT 21,2
INT 21,7
INT 21,8
INT 21,9

In the tutorial