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3a) Because the addresses coded in the instructions would have to be updated whenever new variables were inserted before new ones.

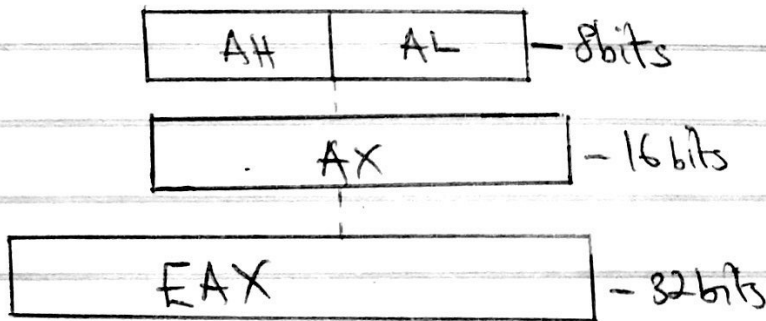
(b) ".ELF" files produced by the assembler are relocatable files that hold code or data. They are input files for the linker.

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(2a) Portability is the characteristic of a code to be used on more than one operating system without retouch of the code.

2b) No because there are different processors

2c)



~~Self~~

3a) Segmentation in assembly language is achieved when the main memory of the computer is divided logically into different segments & each segment will possess its own base address.

(3b) Main POC - This identifies the beginning of a procedure in your program.

mov ax, 47104 - This moves the variable "47104" and stores it in the ax register.

add eax, 1279 - This adds the value "1279" to the EAX 32-bit register.

mov ds, ax - This imports the value that was previously stored in the AX register into the DS i.e. DS currently contains "47104".

main ENDP - This marks the end of a procedure in your program.

3c) (i) value 1 BYTE 6Dh : This is an initialized 8-bit unsigned declaration.

(ii) value 2 DWORD ? : This is an uninitialized 32-bit unsigned declaration.

(iii) value 3 SBYTE -10, -20, -30, -40, -50 : This is a multiple initialized 8-bit signed declaration.

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4. INCLUDE Irvine32.mci

• data

val1 WORD 10000

val2 WORD 40000

val3 WORD 20000

• code

main PROC

mov ax, val2

sub ax, val1

sub ax, val3

call DumpRegs

exit

main ENDP

END main