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CPSC240

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This program find te number of printers connected to computer,

the number of floppy drives, and the size of the RAM, based on

bx in the main function.

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#include <iostream>

using namespace std;

short printerNum, floppyNum, sizeRAM;

short test;

void printerAmount() {

\_asm {

mov cx, 1100000000000000b

and cx, bx ;uses cx because do not want to change original

shr cx, 14 ;shifts right 14 times to get the 2 significant bits to most right

mov printerNum, cx

}

}

void floppyAmount() {

\_asm {

mov cx, 0000000011000000b

and cx, bx ;uses cx because do not want to change original

shr cx, 6 ;shifts right 6 times to get the 2 significant bits to most right

mov floppyNum, cx

inc floppyNum

}

}

void getRAMsize() {

\_asm {

mov cx, 0000000000001100b

and cx, bx ;uses cx because do not want to change original

shr cx, 2 ;shifts right 2 times to get the 2 significant bits to most right

cmp cx, 0x0000 ;compares the 2 bit to see what size of RAM is

Je sixteen

cmp cx, 0x0001

Je thirtytwo

cmp cx, 0x0002

Je fourtyeight

cmp cx, 0x0003

Je sixtyfour

sixteen :

mov sizeRAM, 16

thirtytwo :

mov sizeRAM, 32

fourtyeight :

mov sizeRAM, 48

sixtyfour :

mov sizeRAM, 64

}

}

int main() {

\_asm {

mov bx, 1100111010011100b

call printerAmount

call floppyAmount

call getRAMsize

}

cout << "Number of printers connected to the computer: " << printerNum << endl;

cout << "Number of floppy drives: " << floppyNum << endl;

cout << "Size of RAM: " << sizeRAM << "GB" << endl;

system("pause");

return 0;

}

/\*-------------Output:------------------------------

Number of printers connected to the computer: 3

Number of floppy drives: 3

Size of RAM: 64GB

Press any key to continue . . .

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