Ambition College

New Baneshwor, Kathmandu

Department: BSc. CSIT

Semester: 2nd Semester

SUBJECT: MICROPROCESSOR

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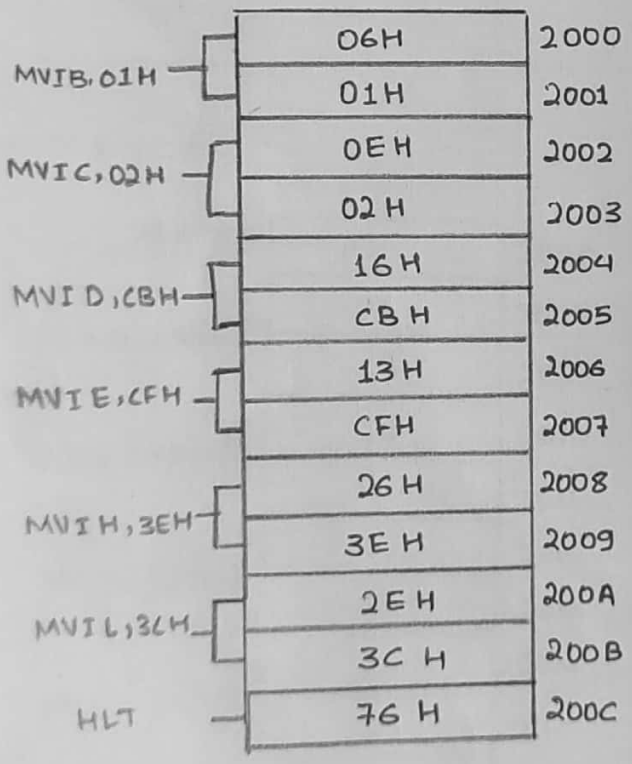
TO WRITE A PROGRAM TO LOAD REGISTER B,C,D,E,H,L WITH VALUES 01, 02, CB, CF, 3E, 3C

PROGRAM:

Mnemonics	Hex Value
MVI B, 01H	06H
MVI C, 02H	0EH
MVI D, CBH	16H
MVI E, CFH	13H
MVI H, 3EH	26H
MVI L, 3CH	2EH
HLT	76H

MEMORY REPRESENTATION



OUTPUT:

Register B = 01H

Register C = 02H

Register D = CBH

Register E = CFH

Register H = 3EH

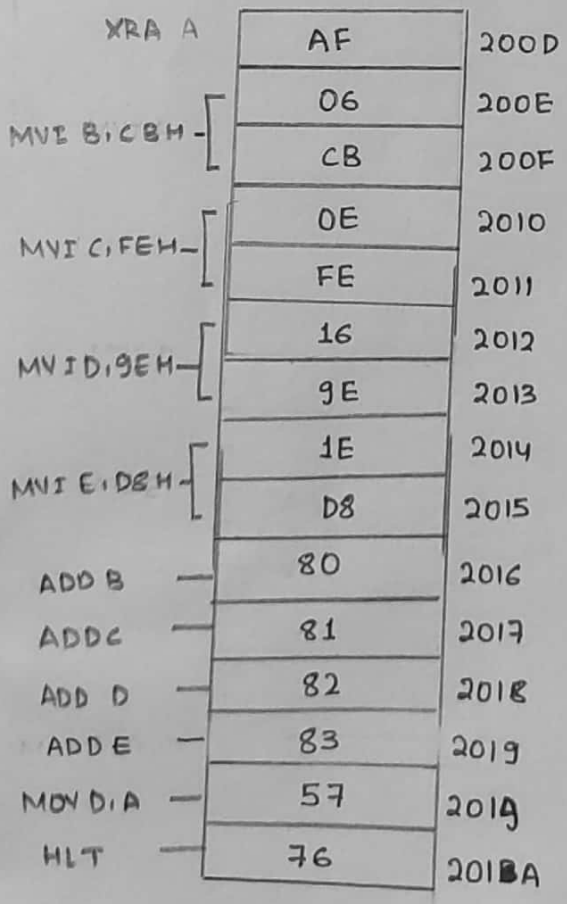
Register L = 3CH

o add four numbers of 8-bit i.e CB, FE, 9E, D8 and show the 8-bit result
nrough D

OGRAM

Instruction	Hex value
XRA A	AF H
MVI B, CB H	06 H
MVI C, FE H	0E H
MVI D, 9E H	16 H
MVI E, D8 H	1E H
ADD B	80H
ADD C	81 H
ADD D	82 H
ADD E	83 H
MOV D, A	57 H
HLT	76H

mory Representation



OTPUT:

Register D =

CONCLUSION:

Hence, we were able to add 4 number of 8-bits data and move final result in register D

Received 19/11

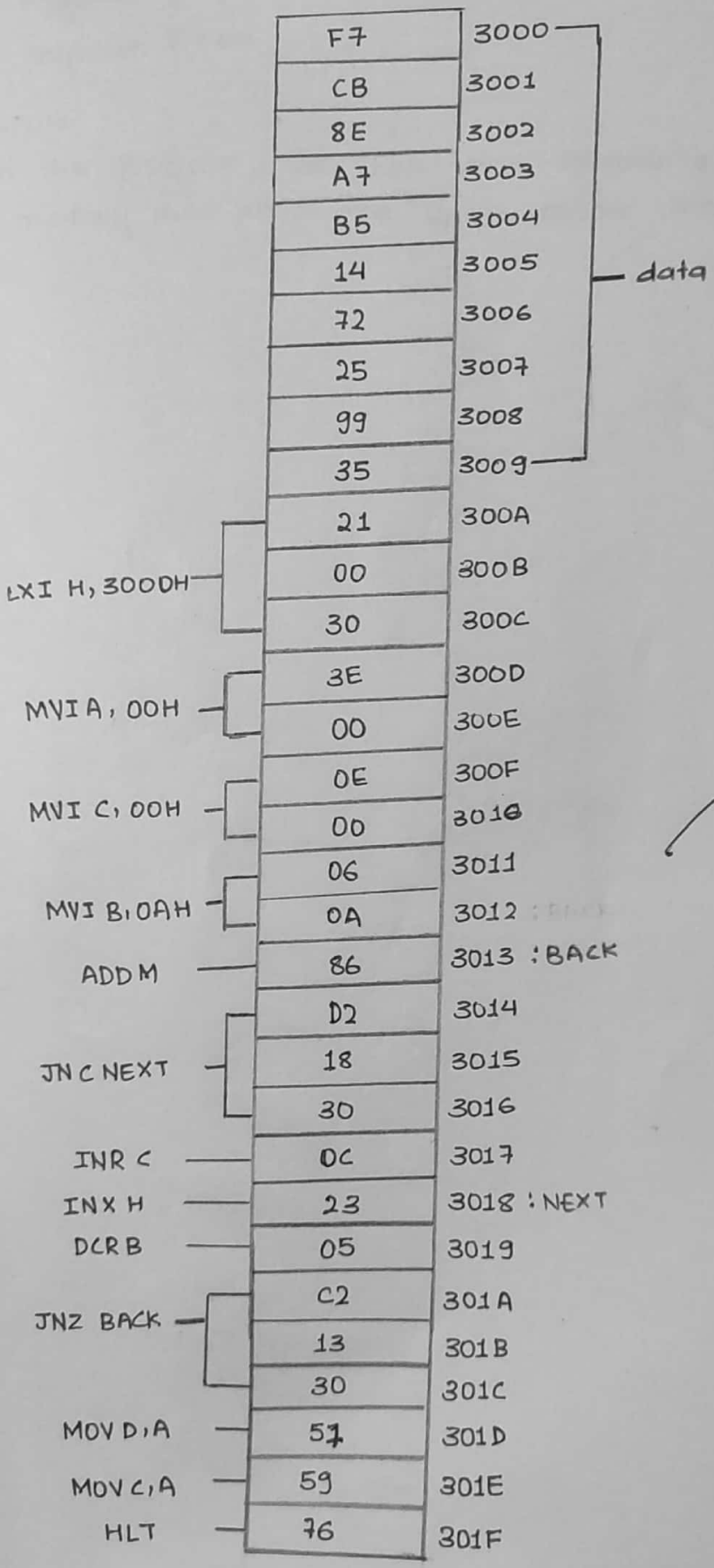
LAB 2

TO ADD 10 BYTES OF DATA STORED IN MEMORY AND SHOW 16 BIT RESULT THROUGH REGISTER D AND E

PROGRAM:

Mnemonics (Instruction)	Hex-Value
LXI H, 3000H	21
MVI A, 00H	3E
MVI C, 00H : carry	0E
MVI B, 0AH : counter	06
BACK: ADD M	86
JNC NEXT	D2
INR C	0C
NEXT: INX H	23
DCR B	05
JNZ BACK	C2
MOV D, A : sum	57
MOV E, C : carry	59
HLT	76

MEMORY REPRESENTATION:



OUTPUT:

Register D = 25

Register E = 05

CONCLUSION:

In this program, we were able to add 10 bytes of data stored in the memory and show the 16-bit result through the register D and E

Reviewed
2011

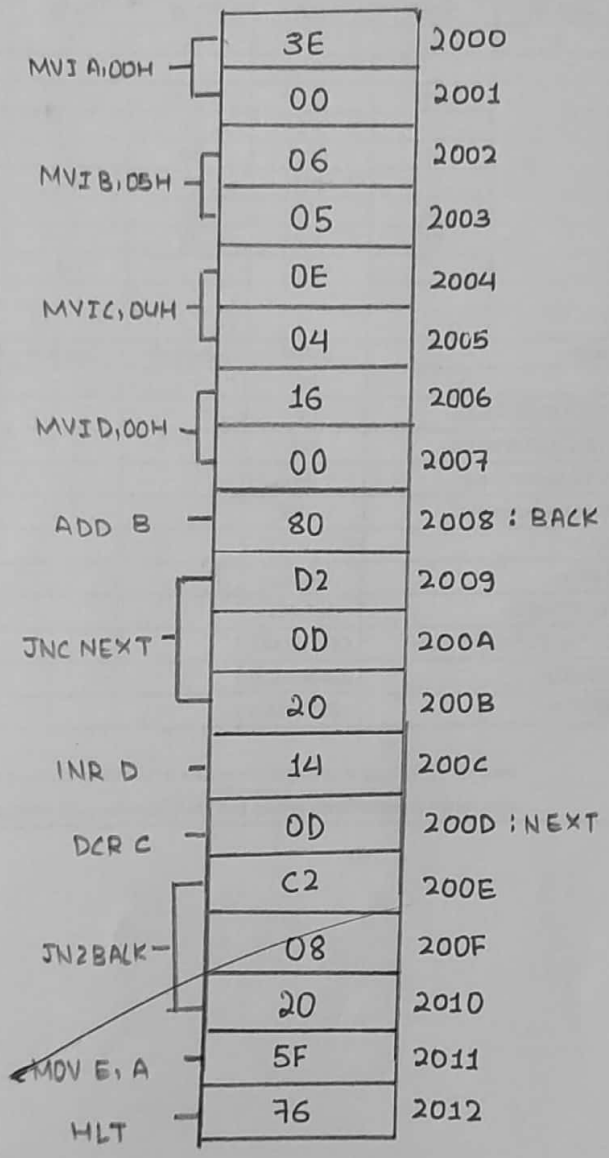
LAB 3

TO MULTIPLY TWO NUMBERS 05 AND 04

ROGRAM

	Mnemonics	Hex Value
	MVI A,00H	3E
	MVI B,05H	06
	MVI C,04H	0E
	MVI D,00H	16
BACK	ADD B	80
	JNC NEXT	D2
	INR D	14
NEXT	DCR C	0D
	JNZ BACK	C2
	MOV E,A	5F
	HLT	76

MEMORY REPRESENTATION



TPUT

Register E = 14H

ULT:

Hence, we were able to multiply two numbers 05H and 04H

Received
04/12

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	A	B	C	D	E	F	G	H	I
1	Q.4)Compute first four moments about an arbitrary point 75 from the following data. Also find first four central								
2	moments,skewness and kurtosis and interpret								
3	Class Interval	50-60	60-70	70-80	80-90	90-100			
4	Frequency	5	12	20	7	6			
5									
6	x	f	mid(m)	fm	m-A				
7	50-60	5	55	275	-20				
8	60-70	12	65	780	-10				
9	70-80	20	75	1500	0				
10	80-90	7	85	595	10				
11	90-100	6	95	570	20				
12		50		3720					
13									
14									
15	**Measure**	**Position**	**Formula**	**Value**	**Formula**				
16	A			75					
17	μ_1'			-0.6	=SUMPRODUCT(B7:B11,E7:E11)/B12				
18	μ_2'			126	=SUMPRODUCT(B7:B11,E7:E11^2)/B12				
19	μ_3'			60	=sumproduct(B7:B11,E7:E11^3)/B12				
20	μ_4'			39000	=sumproduct(B7:B11,E7:E11^4)/B12				
21	μ_1			0	=D17-D17				
22	μ_2			125.64	=D18-D17^2				
23	μ_3			286.368	=D19-3*D17+2*(D17)^3				
24	μ_4			39415.7712	=D20-4*D19*D17+6*D18*(D17)^2-3*(D17)^4				
25	γ_1			0.20334458	=D23/(D22)^1.5				
26	β_2			2.49697488	=D24/(D22)^2				
27									
28	Since (skewness)γ_1=0.203344577>0 so the distribution is positively skewed								
29	and since the kurtosis (β_2) =2.496974877<3 so the distrbution is platykurtic								

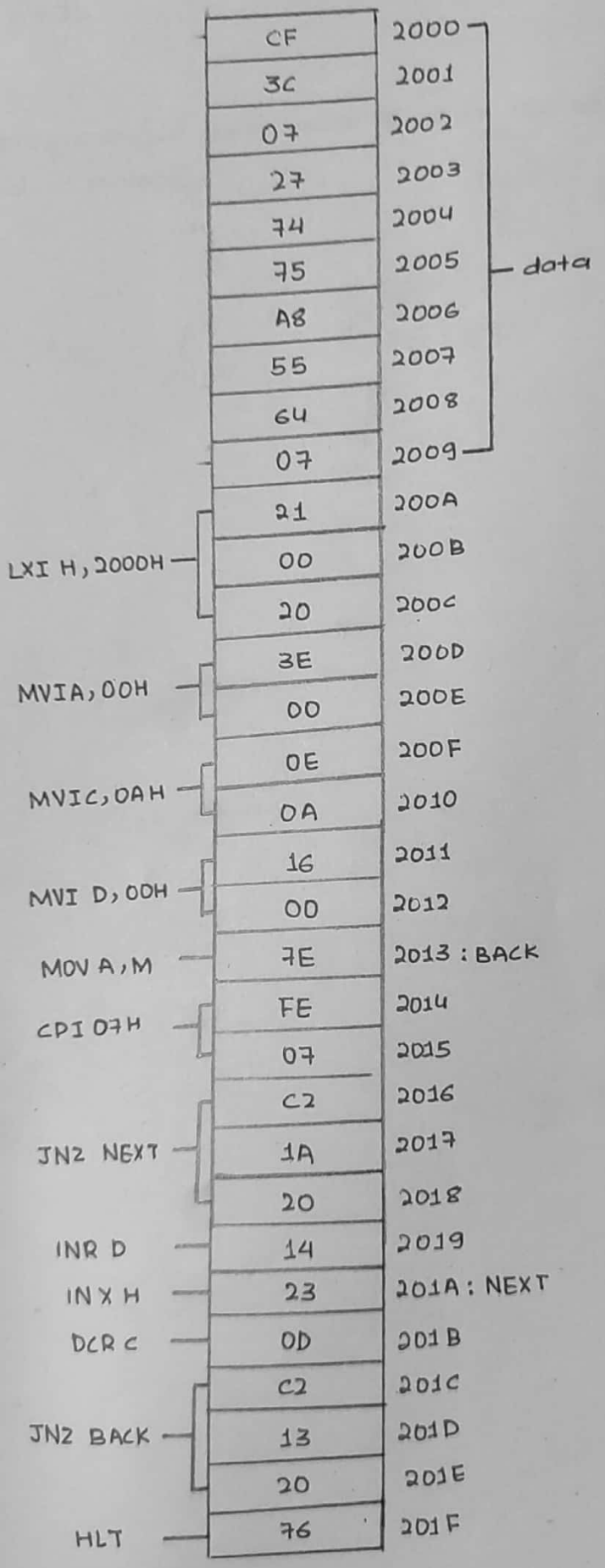
LAB 4

1) WAP to count number of 7 in 10 bytes of data stored in memory

PROGRAM

Mnemonics	Hex Value
LXI H, 2000H	21
MVI A, 00H	3E
MVI C, 0AH : counter	0E
MVI D, 00H : count	16
BACK: MOV A, M	7E
CPI 07H	FE
JNZ NEXT	C2
INR D	14
NEXT: INX H	23
DCR C	0D
JNZ BACK	C2
HLT	76

MEMORY REPRESENTATION



ITPUT

Register D = 02

NCLUSION

In this program, we were able to count number of 7 repeated in 10 bytes f data stored in memory.

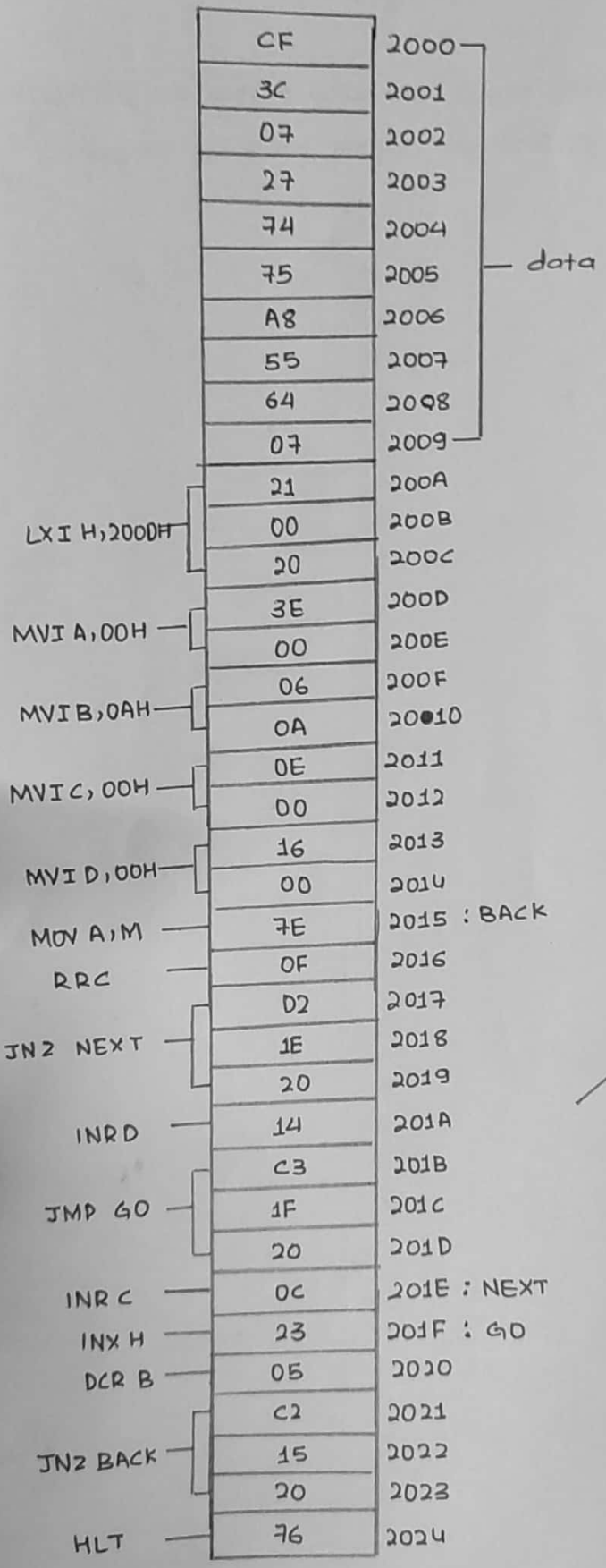
Received
12/12

2) WAP to count number of even and odd number among 10 bytes of data & calculate even number in Register C and odd number in Register D

PROGRAM

Mnemonics	Hex Value
LXI H, 2000H	21
MVI A, 00H	3E
MVI B, 0AH : counter	06
MVI C, 00H : even	0E
MVI D, 00H : odd	16
BACK: MOV A, M	7E
RRC	0F
JNZ NEXT	D2
INR D	14
JMP GO	C3
NEXT: INR C	0C
GO: INX H	23
DCR B	05
JN2 BACK	C2
HLT	76

MORY REPRESENTATION



OUTPUT

Register C = 06

Register D = 04

CONCLUSION:

In this program, we were able to count number of even and odd number among 10 bytes of data stored in memory.

Received 12/12

```
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
NOP
HLT
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
ADD [BX + SI], AL
...
```

original source co...

```
01  .model small
02  .data
03  str db 100dup("$")
04  .code
05  main proc
06  mov bx,@data
07  mov ds,bx
08  mov dx,offset str
09  mov dx,offset str
10  mov ah,0Ah
11  int 21h
12  mov dx,offset str
13  add dx,02h
14  mov ah,09h
15  int 21h
16  main endp
17  end
18
19
```