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Section:

3B

Batch:

Fall-2020

COAL (Lab) Report:

04

Submitted to:

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FAST NUCES Peshawar Camp.

1st asm:

[org 0x100]

jmp start

num1: dw 1, 2, 3, 4, 5

sum: dw 0

start:

mov ax,0

mov bx,num1

mov cx,5

outerloop:

add ax,[bx]

add bx,2

sub cx,1

jnz outerloop

mov [sum],ax

mov ax,0x4c00

int 0x21

1st list:

1

org 0x100

2

3 00000000 E90C00

jmp start

4		
5	00000003 010002000300040005-	<i>num1: dw 1, 2, 3, 4, 5</i>
6	0000000C 00	
7	0000000D 0000	<i>sum: dw 0</i>
8		
9		<i>start:</i>
10		
11	0000000F B80000	<i>mov ax,0</i>
12	00000012 BB[0300]	<i>mov bx,num1</i>
13	00000015 B90500	<i>mov cx,5</i>
14		
15		<i>outerloop:</i>
16		
17	00000018 0307	<i>add ax,[bx]</i>
18	0000001A 81C30200	<i>add bx,2</i>
19	0000001E 81E90100	<i>sub cx,1</i>
20	00000022 75F4	<i>jnz outerloop</i>
21		
22	00000024 A3[0D00]	<i>mov [sum],ax</i>
23	00000027 B8004C	<i>mov ax,0x4c00</i>
24	0000002A CD21	<i>int 0x21</i>
25		

2nd asm:

org 0x100

mov ax, [num1]

mov bx, [num2]

add ax, bx

mov [sum], ax

num1: dw 5

num2: dw 15

sum: dw 0

mov ax, 0x4c00

int 0x21

2nd lst:

1

org 0x100

2

3 00000000 A1[0C00]

mov ax, [num1]

4 00000003 8B1E[0E00]

mov bx, [num2]

5 00000007 01D8	<i>add ax, bx</i>
6 00000009 A3[1000]	<i>mov [sum], ax</i>
7	
8 0000000C 0500	<i>num1: dw 5</i>
9 0000000E 0F00	<i>num2: dw 15</i>
10 00000010 0000	<i>sum: dw 0</i>
11	
12 00000012 B8004C	<i>mov ax, 0x4c00</i>
13 00000015 CD21	<i>int 0x21</i>

3rd asm:

org 0x100

mov ax,[num1]

mov bx,[num1+2]

add ax,bx

mov [num1+4],ax

num1: dw 15,20,0

mov ax,0x4c00

int 0x21

3rd list:

1	<i>org 0x100</i>
2	
3 00000000 A1[0C00]	<i>mov ax,[num1]</i>
4 00000003 8B1E[0E00]	<i>mov bx,[num1+2]</i>
5 00000007 01D8	<i>add ax,bx</i>
6 00000009 A3[1000]	<i>mov [num1+4],ax</i>
7	
8 0000000C 0F0014000000	<i>num1: dw 15,20,0</i>
9	
10 00000012 B8004C	<i>mov ax,0x4c00</i>
11 00000015 CD21	<i>int 0x21</i>

C: > NASM > ASM lab4-1.asm

```
1  |prg 0x100
2
3  jmp start
4
5  num1: dw 1, 2, 3, 4, 5
6  sum:  dw 0
7
8  start:
9
10 mov ax,0
11 mov bx,num1
12 mov cx,5
13
14 outerloop:
15 add ax,[bx]
16 add bx,2
17 sub cx,1
18 jnz outerloop
19
20 mov [sum],ax
21 mov ax,0x4c00
22 int 0x21
23
24
```

C: > NASM > LAB4-1.LST

```
1      1      org 0x100
2      2
3      3 00000000 E90C00      jmp start
4      4
5      5 00000003 010002000300040005-      num1: dw 1, 2, 3, 4, 5
6      6 0000000C 00
7      7 0000000D 0000      sum: dw 0
8      8
9      9      start:
10     10
11     11 0000000F B80000      mov ax,0
12     12 00000012 BB[0300]    mov bx,num1
13     13 00000015 B90500      mov cx,5
14     14
15     15      outerloop:
16     16
17     17 00000018 0307      add ax,[bx]
18     18 0000001A 81C30200    add bx,2
19     19 0000001E 81E90100    sub cx,1
20     20 00000022 75F4      jnz outerloop
21     21
22     22 00000024 A3[0D00]    mov [sum],ax
23     23 00000027 B8004C      mov ax,0x4c00
24     24 0000002A CD21      int 0x21
25     25
26
```


C: > NASM > ASM lab4-2.asm

```
1  |org 0x100
2
3  mov ax, [num1]
4  mov bx, [num2]
5  add ax, bx
6  mov [sum], ax
7
8  num1: dw 5
9  num2: dw 15
10 sum: dw 0
11
12 mov ax, 0x4c00
13 int 0x21
```

C: > NASM > LAB4-2.LST

1	1	org 0x100
2	2	
3	3 00000000 A1[0C00]	mov ax, [num1]
4	4 00000003 8B1E[0E00]	mov bx, [num2]
5	5 00000007 01D8	add ax, bx
6	6 00000009 A3[1000]	mov [sum], ax
7	7	
8	8 0000000C 0500	num1: dw 5
9	9 0000000E 0F00	num2: dw 15
10	10 00000010 0000	sum: dw 0
11	11	
12	12 00000012 B8004C	mov ax, 0x4c00
13	13 00000015 CD21	int 0x21
14		

C: > NASM > ASM lab4-3.asm

```
1  |org 0x100
2
3  mov ax,[num1]
4  mov bx,[num1+2]
5  add ax,bx
6  mov [num1+4],ax
7
8  num1: dw 15,20,0
9
10 mov ax,0x4c00
11 int 0x21
12
```

C: > NASM > LAB4-3.LST

1	1	org 0x100
2	2	
3	3 00000000 A1[0C00]	mov ax,[num1]
4	4 00000003 8B1E[0E00]	mov bx,[num1+2]
5	5 00000007 01D8	add ax,bx
6	6 00000009 A3[1000]	mov [num1+4],ax
7	7	
8	8 0000000C 0F0014000000	num1: dw 15,20,0
9	9	
10	10 00000012 B8004C	mov ax,0x4c00
11	11 00000015 CD21	int 0x21
12		

