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Batch - A

Assignment 6

1.) Write a program to implement ASCII addition

SOURCE CODE:

```
.model small

.data
num1 db '1'
len db ($-num1)
num2 db '4'
ans db 4dup(0)

.code
main proc near
mov ax,@data
mov ds,ax
lea si,num1
lea di,num2
lea bx,ans
mov ax,0000h
mov cl,len
dec cl

again:
inc si
inc di
inc bx
loop again

inc bx
mov cl,len

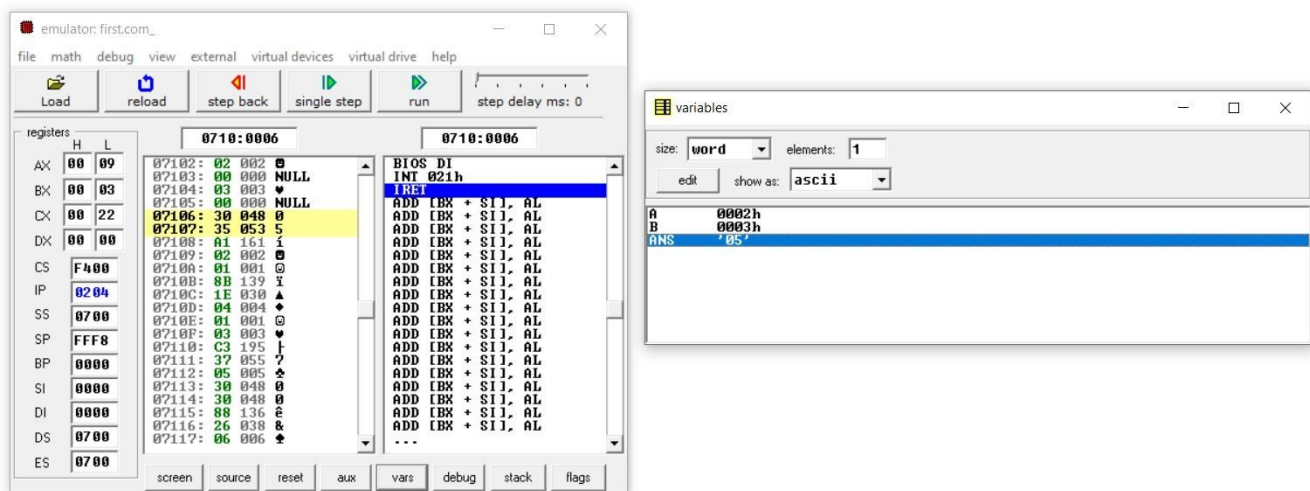
x:
mov al,[si]
adc al,[di]
aaa
mov [bx],al
dec si
dec di
dec bx
loop x
adc [bx],00h
```

```

mov cl,len
inc cl
y:
add [bx],30h
inc bx
loop y
mov ax,4c00h
int 21h
endp
end

```

OUTPUT:



2.) Write a program to implement ASCII subtraction string

SOURCE CODE:

```

.model small

.data
num1 db '5'
len db ($-num1)
num2 db '3'
ans db 3dup(0)

.code
main proc near
mov ax,@data
mov ds,ax
lea si,num1
lea di,num2
lea bx,ans

```

```
mov ax,0000h
```

```
mov cl,len
```

```
dec cl
```

```
again:
```

```
inc si
```

```
inc di
```

```
inc bx
```

```
loop again
```

```
inc bx
```

```
mov cl,len
```

```
x:
```

```
mov al,[si]
```

```
sbb al,[di]
```

```
aas
```

```
mov [bx],al
```

```
dec si
```

```
dec di
```

```
dec bx
```

```
loop x
```

```
sbb [bx],00h
```

```
mov cl,len
```

```
inc cl
```

```
y:
```

```
add [bx],30h
```

```
inc bx
```

```
loop y
```

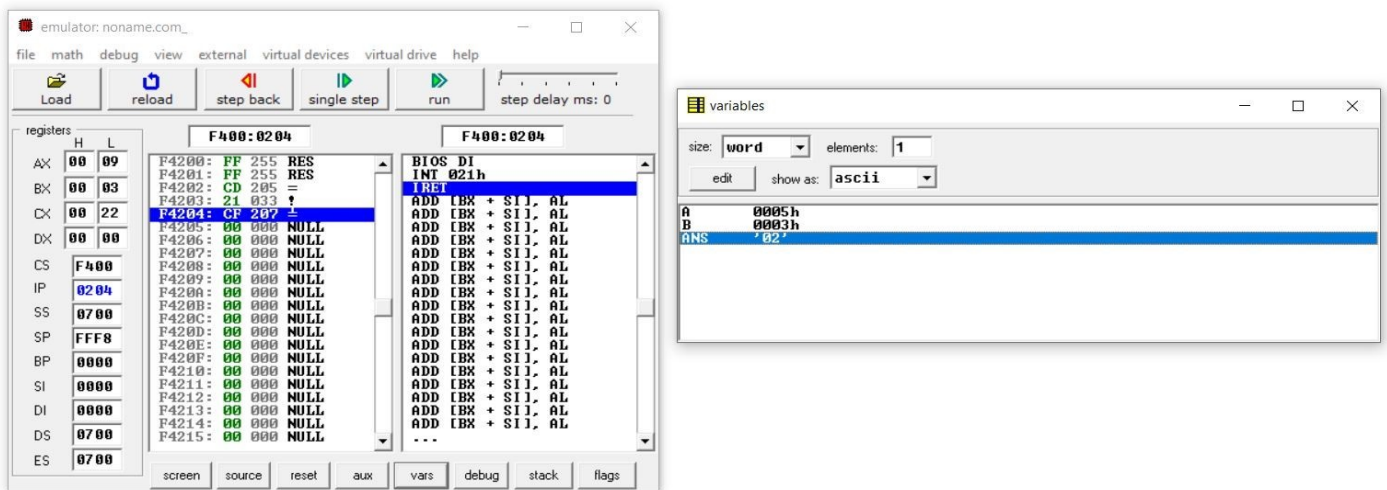
```
mov ax,4c00h
```

```
int 21h
```

```
endp
```

```
end
```

OUTPUT:



3.) Write a program to implement ASCII multiplication

SOURCE CODE:

```
.model small

.data
num1 db '1'
lendb ($-num1)
num2 db '5'
ansdb 4dup(0)

.code
main proc near
    mov ax,@data
    mov ds,ax
    lea si,num1
    lea bx,ans
    mov ax,0000h
    mov cl,len
    dec cl

    again:
    incsi
    incbx
    loop again

    incbx
    mov cl,len
    mov dx,00h

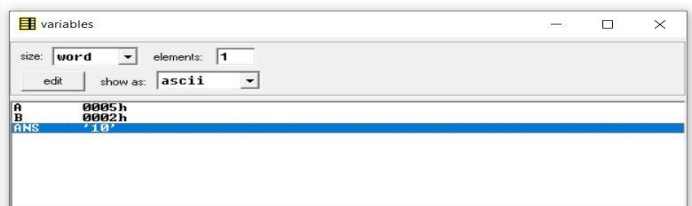
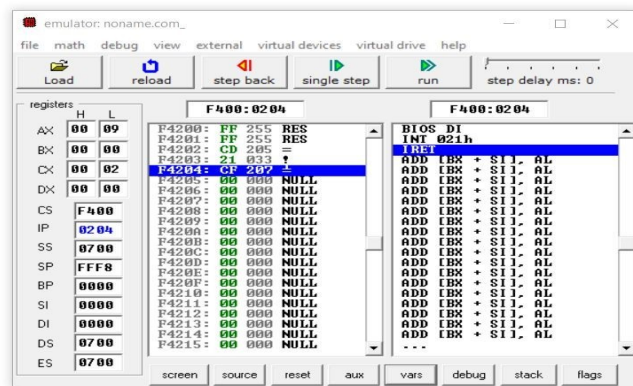
X:
```

```

mov al,[si]
and al,0fh
and num2,0fh
mul num2
aam
adcal,dl
mov dl,ah
aam
mov [bx],al
dec si
dec bx
loop x
adc [bx],dl
mov cl,len
inc cl
y:
add [bx],30h
inc bx
loop y
mov ax,4c00h
int 21h
endp
end

```

OUTPUT:



4.) Write a program to implement ASCII division

SOURCE CODE:

```

.model small

.data
num1 db '10'
lendb $-num1

```

```

num2 db '2'
ansdb 4dup(0)
.code
main proc near
    mov ax,@data
    mov ds,ax

    lea si,num1
    mov bl,num2
    lea di,ans
    and bl,0fh
    mov cl,len
    dec cl
again:
    incsi
    inc di
    loop again
    mov cl,len
l1: mov ah,00h
    mov al,[si]
    and al,0fh
    aad
    div bl
    mov [di],al
    decsi
    dec di
    loop l1

    mov cl,len
    lea di,ans

    l2:add [di],30h
    inc di
    loop l2

    mov ax,04ch
    int 21h
endp
end

```

OUTPUT:

