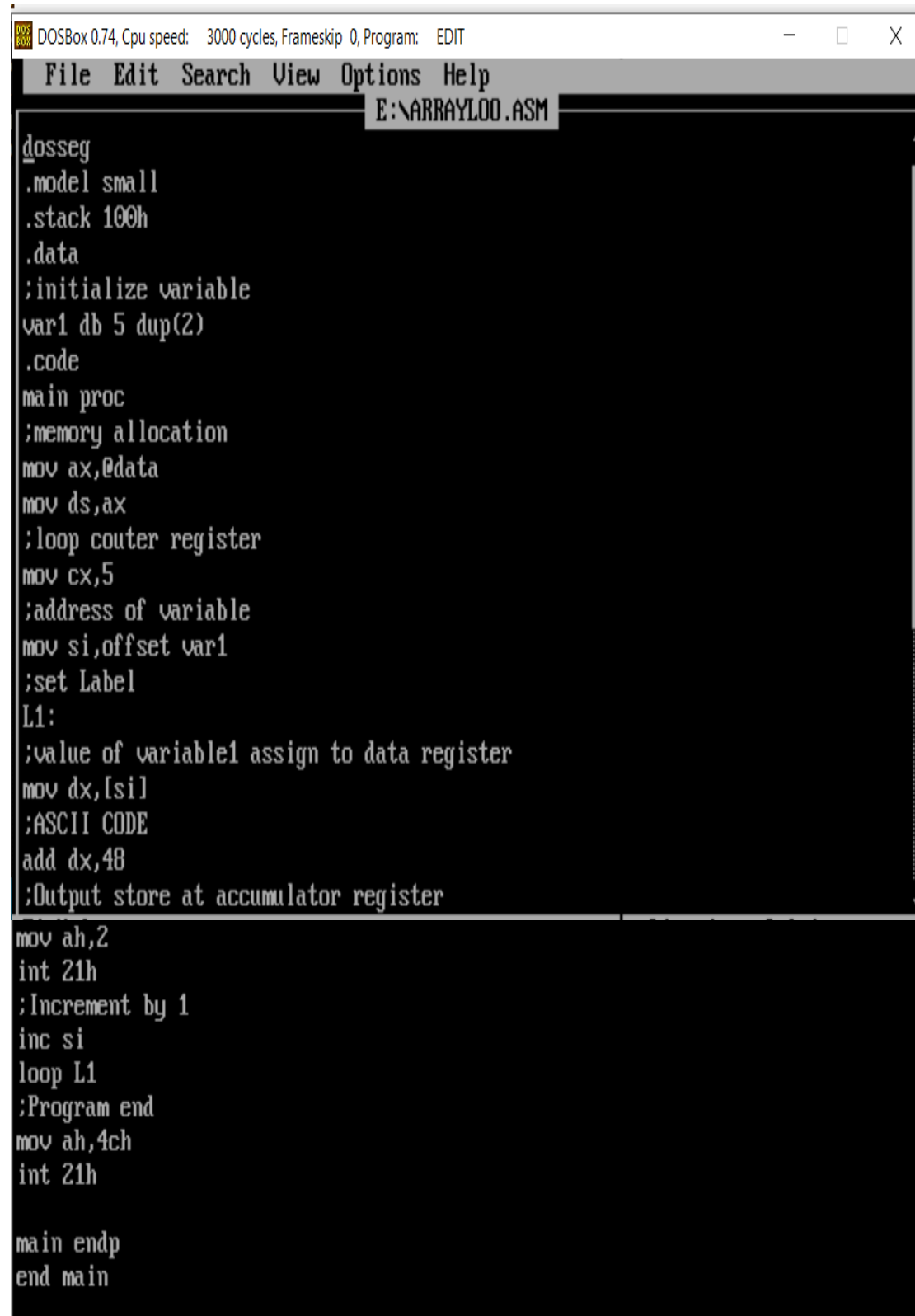


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COURSE CODE: 402
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Task 1: Program to print an Array using loop.

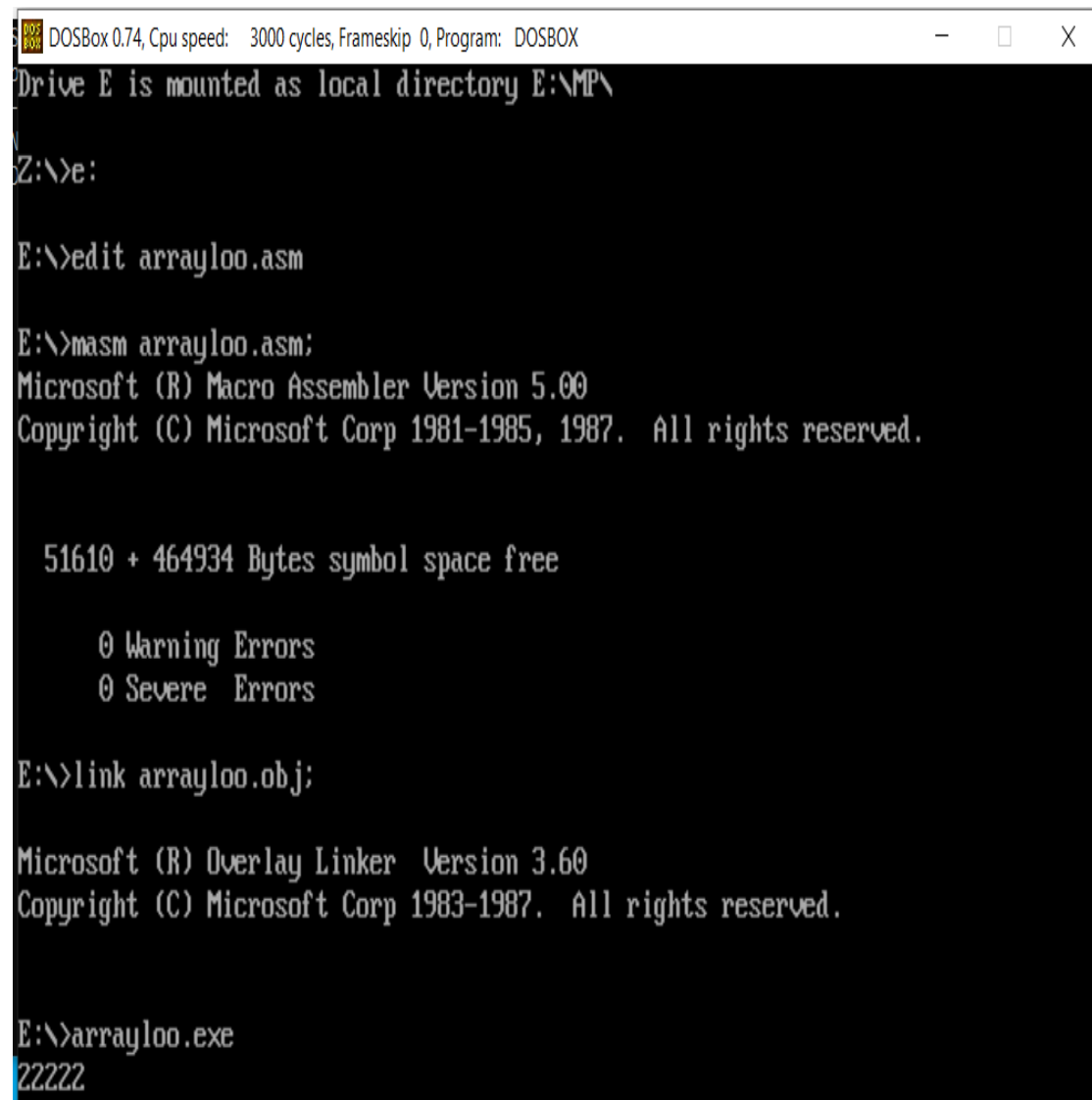
Program:

A screenshot of a DOSBox 0.74 window. The title bar shows 'DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT'. The menu bar includes 'File', 'Edit', 'Search', 'View', 'Options', and 'Help'. The title bar of the editor window shows 'E:\ARRAYLOO.ASM'. The editor contains the following assembly code:

```
dosseg
.model small
.stack 100h
.data
;initialize variable
var1 db 5 dup(2)
.code
main proc
;memory allocation
mov ax,@data
mov ds,ax
;loop counter register
mov cx,5
;address of variable
mov si,offset var1
;set Label
L1:
;value of variable1 assign to data register
mov dx,[si]
;ASCII CODE
add dx,48
;Output store at accumulator register
mov ah,2
int 21h
;Increment by 1
inc si
loop L1
;Program end
mov ah,4ch
int 21h

main endp
end main
```

Output:



```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOSBOX
Drive E is mounted as local directory E:\MP\
Z:\>e:

E:\>edit arrayloo.asm

E:\>masm arrayloo.asm;
Microsoft (R) Macro Assembler Version 5.00
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.

51610 + 464934 Bytes symbol space free

0 Warning Errors
0 Severe Errors

E:\>link arrayloo.obj;

Microsoft (R) Overlay Linker Version 3.60
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.

E:\>arrayloo.exe
22222
```

Task 2: Program to input string and print it.

Program:

DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: EDIT

File Edit Search View Options Help

E:\STRING.ASM

```
dosseg
.model small
.stack 100h

.data
;initialize Array in var1
var1 db 500 dup("$")
; initialize String in var2
var2 db "Enter String:$"

.code
main proc
;Allocate Heap Memory
mov ax,@data
mov ds,ax
;print var2
mov dx,offset var2
mov ah,9
int 21h
;assign address of var1 in source index register
mov si,offset var1

L2:
;input user
mov ah,1
int 21h
; execute when user press enter key
cmp al,13
je L3
mov [si],al
;increment source index
inc si
jmp L2

L3:
;print var1
mov dx,offset var1
mov ah,9
int 21h

;program end
mov ah,4ch
int 21h
```

```
main endp  
end main
```

Output:

```
E:\>masm string.asm;  
Microsoft (R) Macro Assembler Version 5.00  
Copyright (C) Microsoft Corp 1981-1985, 1987. All rights reserved.
```

```
51658 + 464886 Bytes symbol space free
```

```
0 Warning Errors  
0 Severe Errors
```

```
E:\>link string.obj;
```

```
Microsoft (R) Overlay Linker Version 3.60  
Copyright (C) Microsoft Corp 1983-1987. All rights reserved.
```

```
E:\>string.exe  
Enter String:Software Engineering  
Software Engineering
```