

LAPORAN PRAKTIKUM
DASAR SISTEM KOMPUTER

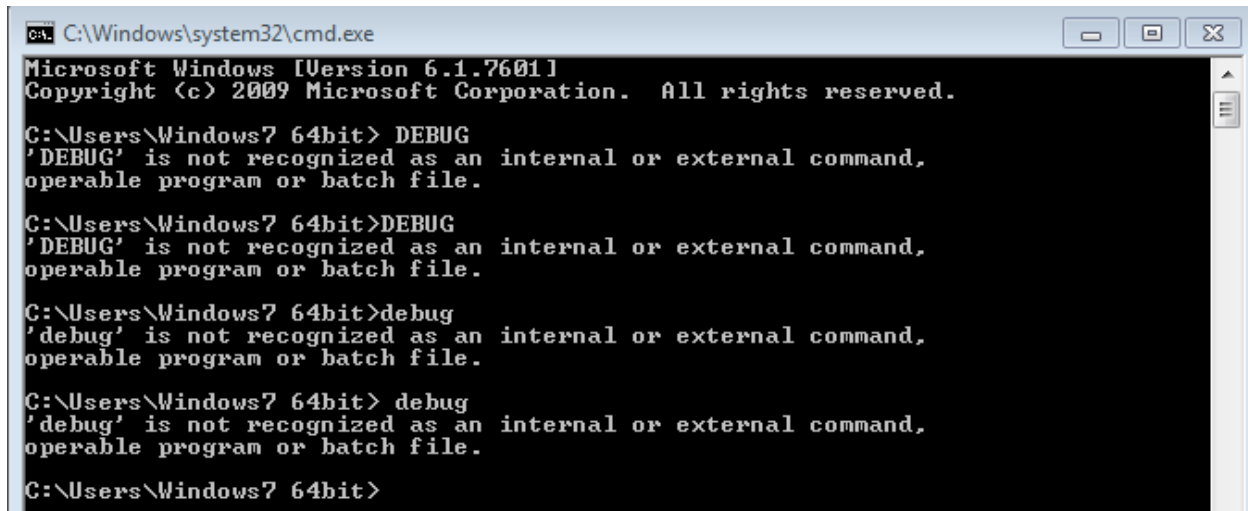


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PROGRAM STUDI TEKNIK INFORMATIKA
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PRAKTIK I

Saya menggunakan DOS BOX karena cmd tidak bisa menjalankan debug.



```
C:\Windows\system32\cmd.exe
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Windows7 64bit> DEBUG
'DEBUG' is not recognized as an internal or external command,
operable program or batch file.

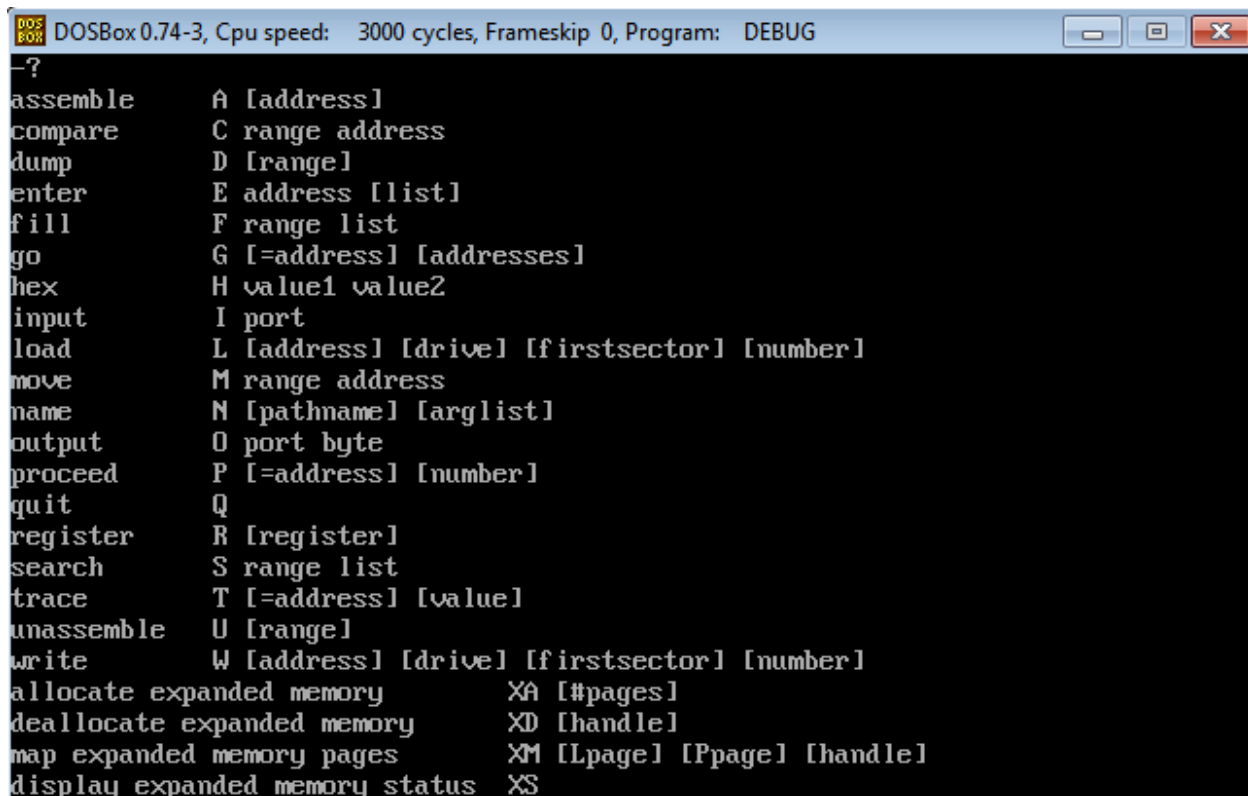
C:\Users\Windows7 64bit>DEBUG
'DEBUG' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\Windows7 64bit>debug
'debug' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\Windows7 64bit> debug
'debug' is not recognized as an internal or external command,
operable program or batch file.

C:\Users\Windows7 64bit>
```

Menjalankan DEBUG pada DOSBox dan list perintah.



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
-?
assemble      A [address]
compare       C range address
dump          D [range]
enter         E address [list]
fill          F range list
go            G [=address] [addresses]
hex           H value1 value2
input         I port
load          L [address] [drive] [firstsector] [number]
move          M range address
name          N [pathname] [arglist]
output        O port byte
proceed       P [=address] [number]
quit          Q
register       R [register]
search        S range list
trace         T [=address] [value]
unassemble    U [range]
write         W [address] [drive] [firstsector] [number]
allocate expanded memory  XA [#pages]
deallocate expanded memory XD [handle]
map expanded memory pages XM [Lpage] [Ppage] [handle]
display expanded memory status XS
```

Mengetik

A 100

Mov ax,05

Mov ds,ax

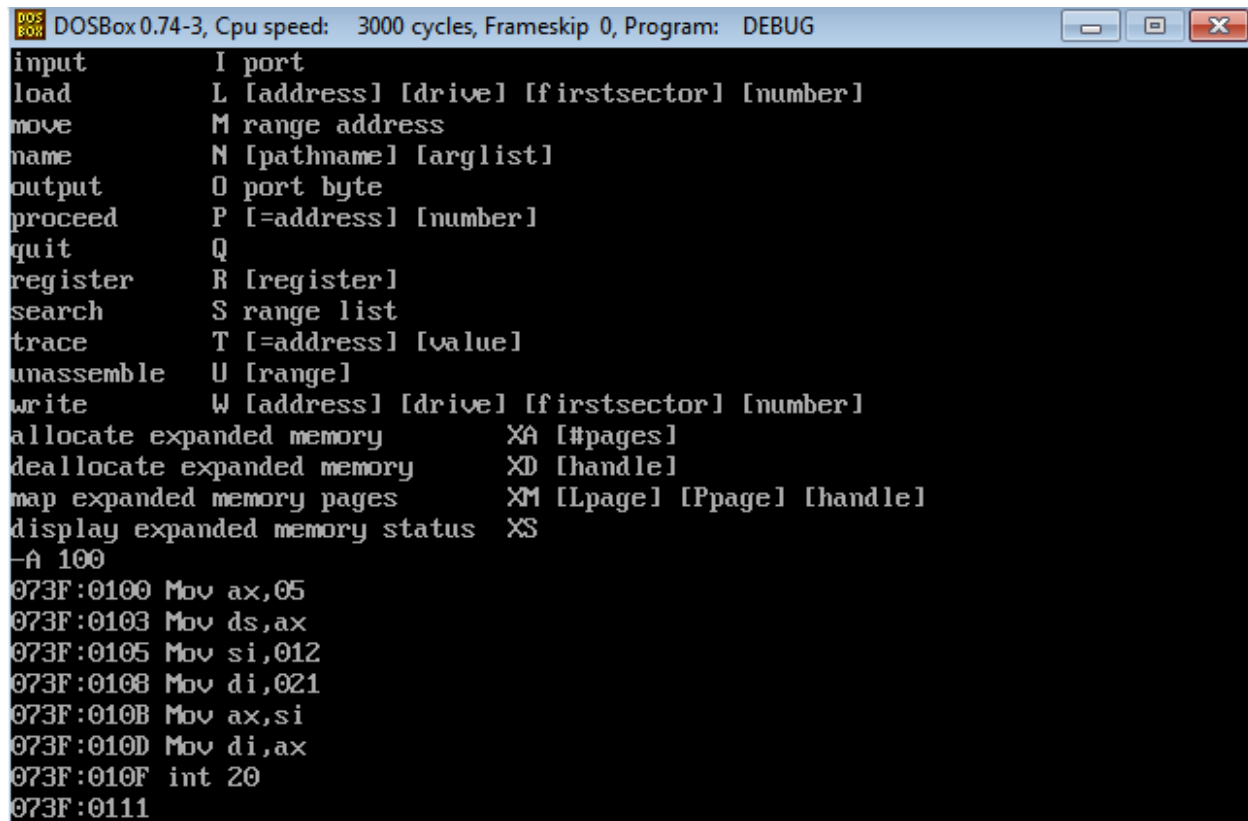
Mov si,012

Mov di,021

Mov ax,si

Mov di,ax

Int 20



DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG

input	I port
load	L [address] [drive] [firstsector] [number]
move	M range address
name	N [pathname] [arglist]
output	O port byte
proceed	P [=address] [number]
quit	Q
register	R [register]
search	S range list
trace	T [=address] [value]
unassemble	U [range]
write	W [address] [drive] [firstsector] [number]
allocate expanded memory	XA [#pages]
deallocate expanded memory	XD [handle]
map expanded memory pages	XM [Lpage] [Ppage] [handle]
display expanded memory status	XS

-A 100

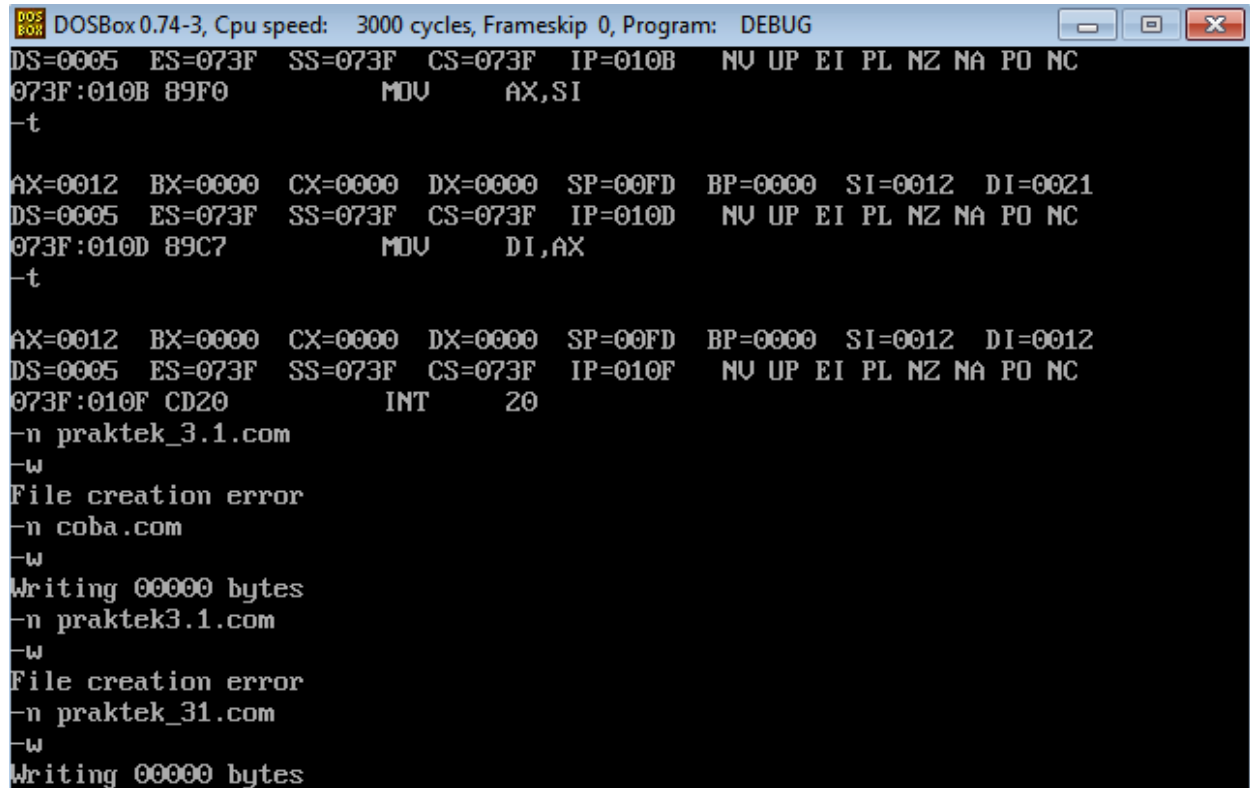
073F:0100 Mov ax,05
073F:0103 Mov ds,ax
073F:0105 Mov si,012
073F:0108 Mov di,021
073F:010B Mov ax,si
073F:010D Mov di,ax
073F:010F int 20
073F:0111

Hasil dari perubahan register.

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
073F:010B Mov ax,si
073F:010D Mov di,ax
073F:010F Int 20
073F:0111
-t
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0000 DI=0000
DS=073F ES=073F SS=073F CS=073F IP=0103  NU UP EI PL NZ NA PO NC
073F:0103 8ED8          MOV     DS,AX
-t
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0000 DI=0000
DS=0005 ES=073F SS=073F CS=073F IP=0105  NU UP EI PL NZ NA PO NC
073F:0105 BE1200       MOV     SI,0012
-t
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0000
DS=0005 ES=073F SS=073F CS=073F IP=0108  NU UP EI PL NZ NA PO NC
073F:0108 BF2100       MOV     DI,0021
-t
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0021
DS=0005 ES=073F SS=073F CS=073F IP=010B  NU UP EI PL NZ NA PO NC
073F:010B 89F0          MOV     AX,SI
-
```

```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0000 DI=0000
DS=0005 ES=073F SS=073F CS=073F IP=0105  NU UP EI PL NZ NA PO NC
073F:0105 BE1200       MOV     SI,0012
-t
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0000
DS=0005 ES=073F SS=073F CS=073F IP=0108  NU UP EI PL NZ NA PO NC
073F:0108 BF2100       MOV     DI,0021
-t
AX=0005 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0021
DS=0005 ES=073F SS=073F CS=073F IP=010B  NU UP EI PL NZ NA PO NC
073F:010B 89F0          MOV     AX,SI
-t
AX=0012 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0021
DS=0005 ES=073F SS=073F CS=073F IP=010D  NU UP EI PL NZ NA PO NC
073F:010D 89C7          MOV     DI,AX
-t
AX=0012 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0012
DS=0005 ES=073F SS=073F CS=073F IP=010F  NU UP EI PL NZ NA PO NC
073F:010F CD20          INT     20
-
```

Menyimpan program



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
DS=0005 ES=073F SS=073F CS=073F IP=010B  NU UP EI PL NZ NA PO NC
073F:010B 89F0          MOV     AX,SI
-t
AX=0012 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0021
DS=0005 ES=073F SS=073F CS=073F IP=010D  NU UP EI PL NZ NA PO NC
073F:010D 89C7          MOV     DI,AX
-t
AX=0012 BX=0000 CX=0000 DX=0000 SP=00FD BP=0000 SI=0012 DI=0012
DS=0005 ES=073F SS=073F CS=073F IP=010F  NU UP EI PL NZ NA PO NC
073F:010F CD20          INT     20
-n praktek_3.1.com
-w
File creation error
-n coba.com
-w
Writing 00000 bytes
-n praktek3.1.com
-w
File creation error
-n praktek_31.com
-w
Writing 00000 bytes
```

PRAKTIK II

Mengetikkan

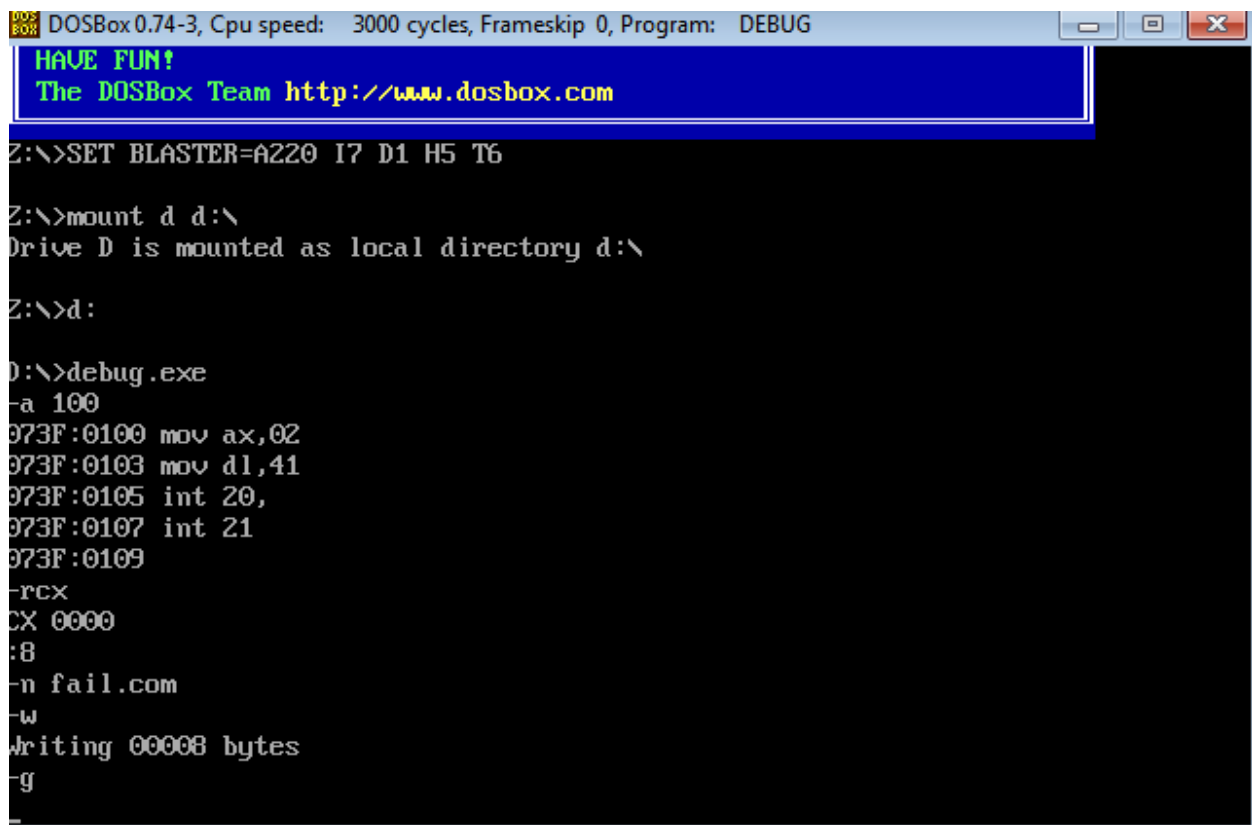
A 100

Mov ax,02

Mov dl,41

Int 20

Int 21



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
HAVE FUN!
The DOSBox Team http://www.dosbox.com
Z:\>SET BLASTER=A220 I7 D1 H5 T6
Z:\>mount d d:\
Drive D is mounted as local directory d:\
Z:\>d:
D:\>debug.exe
-a 100
073F:0100 mov ax,02
073F:0103 mov dl,41
073F:0105 int 20,
073F:0107 int 21
073F:0109
-r cx
CX 0000
:8
-n fail.com
-w
Writing 00008 bytes
-g
-
```

Setelah dijalankan, ternyata lag dan error (force close). Dan tidak muncul huruf A. Dan hasil akhirnya adalah 109, bukan 108.

Mengetikkan (versi saya)

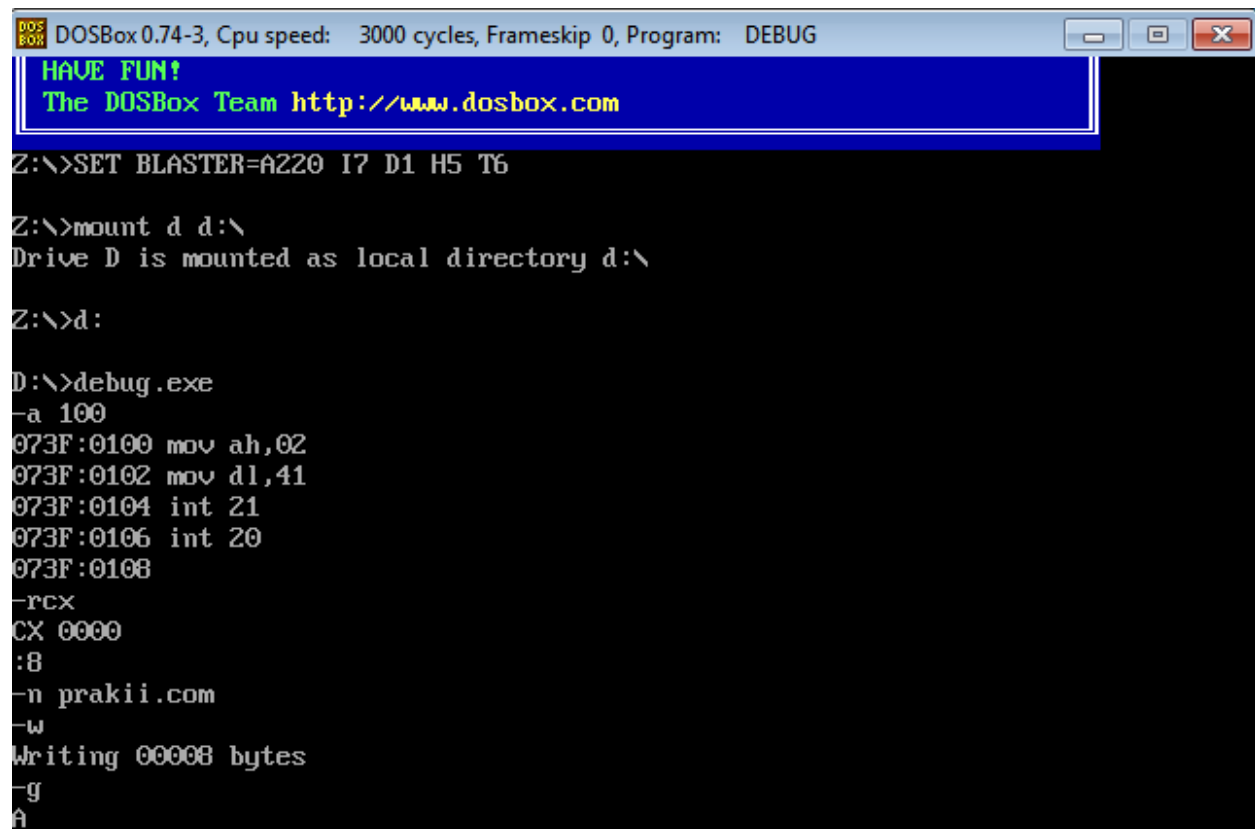
Mov ah,02

Mov dl,41

Int 21

Int 20

Dan menghasilkan huruf A.



```
DOSBox 0.74-3, Cpu speed: 3000 cycles, Frameskip 0, Program: DEBUG
HAVE FUN!
The DOSBox Team http://www.dosbox.com
Z:\>SET BLASTER=A220 I7 D1 H5 T6
Z:\>mount d d:\
Drive D is mounted as local directory d:\
Z:\>d:
D:\>debug.exe
-a 100
073F:0100 mov ah,02
073F:0102 mov dl,41
073F:0104 int 21
073F:0106 int 20
073F:0108
-rcx
CX 0000
:8
-n prakii.com
-w
Writing 00008 bytes
-g
A
```

Keluar dari program dan kemudian mengetahui panjang program.



```
D:\>dir prakii.com
Directory of D:\.
PRAKII  COM               8 13-10-2021 10:26
      1 File(s)              8 Bytes.
      0 Dir(s)          262,111,744 Bytes free.
```

PRAKTIK III

Menuliskan seperti di modul.

Mov ah,02

Mov dl,31

Int 20

Int 21

```
D:\>debug.exe
-a 100
073F:0100 mov ah,02
073F:0102 mov dl,31
073F:0104 int 20
073F:0106 int 21
073F:0108
-n prank.com
-w
Writing 00000 bytes
-g
```

Mengetikkan (versi saya)

Mov ah,02

Mov dl,31

Int 21

Int 20

```
D:\>debug.exe
-a 100
073F:0100 mov ah,02
073F:0102 mov dl,31
073F:0104 int 21
073F:0106 int 20
073F:0108
-n bener.com
-w
Writing 00000 bytes
-g
1
```