

**LAPORAN PRAKTIKUM SISTEM OPERASI**  
**MODUL 1**  
**PENGENALAN SISTEM PENGEMBANGAN OS DENGAN PC**  
**SIMULATOR 'BOCHS'**



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## HASIL KEGIATAN MODUL 1:

```
Bochs for Windows - Console
Microsoft Windows [Version 10.0.18362.1082]
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C:\Users\USER>C:
C:\Users\USER>cd..
C:\Users>cd..
C:\>cd OS
C:\OS>dir
Volume in drive C has no label.
Volume Serial Number is B666-27C5

Directory of C:\OS

12/09/2019  16:11    <DIR>        .
12/09/2019  16:11    <DIR>        ..
12/09/2019  16:11    <DIR>        Bochs-2.3.5
12/09/2019  16:11    <DIR>        Dev-Cpp
17/12/2008  00:08             1.096.291  i386.pdf
12/09/2019  16:11    <DIR>        LAB
17/12/2008  00:07             846.920  pcasm-book.pdf
17/12/2008  01:44              86  Setpath.bat
13/12/2008  14:12             716.512  winima81.exe
               4 File(s)          2.659.809 bytes
               5 Dir(s)    103.423.598.592 bytes free

C:\OS>setpath
C:\OS>Path=C:\OS\Dev-Cpp\bin;c:\OS\Bochs-2.3.5;c:\OS\Perl;c:\Windows;c:\Windows\System32
C:\OS>cd LAB
C:\OS\LAB>dir
Volume in drive C has no label.
Volume Serial Number is B666-27C5

Directory of C:\OS\LAB

12/09/2019  16:11    <DIR>        .
12/09/2019  16:11    <DIR>        ..
```

```
Bochs for Windows - Console
C:\OS\LAB>dir
Volume in drive C has no label.
Volume Serial Number is B666-27C5

Directory of C:\OS\LAB

12/09/2019  16:11    <DIR>        .
12/09/2019  16:11    <DIR>        ..
12/09/2019  16:11    <DIR>        LAB1
12/09/2019  16:11    <DIR>        lab1_O
12/09/2019  16:11    <DIR>        LAB2
12/09/2019  16:11    <DIR>        lab2_org
12/09/2019  16:11    <DIR>        LAB3
12/09/2019  16:11    <DIR>        lab3_ORG
12/09/2019  16:11    <DIR>        lab4
12/09/2019  16:11    <DIR>        lab5
12/09/2019  16:11    <DIR>        lab6
12/09/2019  16:11    <DIR>        lab6b
               0 File(s)              0 bytes
               12 Dir(s)    103.423.782.912 bytes free

C:\OS\LAB>cd LAB1
C:\OS\LAB\LAB1>dir
Volume in drive C has no label.
Volume Serial Number is B666-27C5

Directory of C:\OS\LAB\LAB1

12/09/2019  16:11    <DIR>        .
12/09/2019  16:11    <DIR>        ..
27/09/2020  19:36             10.218  bochsout.txt
15/12/2008  16:17             1.628  bochsrc.bxrc
14/12/2008  12:02             14.365  boot.asm
07/09/2016  11:20              512  boot.bin
27/09/2020  19:30              512  boots.bin
15/12/2008  00:47              78  dosfp.bat
27/09/2020  20:06          1.474.560  floppy.a.img
14/12/2008  11:45              7.966  kernel.asm
15/12/2008  16:21              227  Makefile
```

```
Bochs for Windows - Console
10 File(s)      1.510.110 bytes
2 Dir(s) 103.423.782.912 bytes free

C:\OS\LAB\LAB1>bximage
=====
bximage
Disk Image Creation Tool for Bochs
$Id: bximage.c,v 1.32 2006/06/16 07:29:33 vruppert Exp $
=====

Do you want to create a floppy disk image or a hard disk image?
Please type hd or fd. [hd] fd

Choose the size of floppy disk image to create, in megabytes.
Please type 0.16, 0.18, 0.32, 0.36, 0.72, 1.2, 1.44, 1.68, 1.72, or 2.88.
[1.44] 1.44
I will create a floppy image with
cyl=80
heads=2
sectors per track=18
total sectors=2880
total bytes=1474560

What should I name the image?
[a.img] floppy.img

The disk image 'floppya.img' already exists. Are you sure you want to replace it?
Please type yes or no. [no] yes

Writing: [] Done.

I wrote 1474560 bytes to floppya.img.

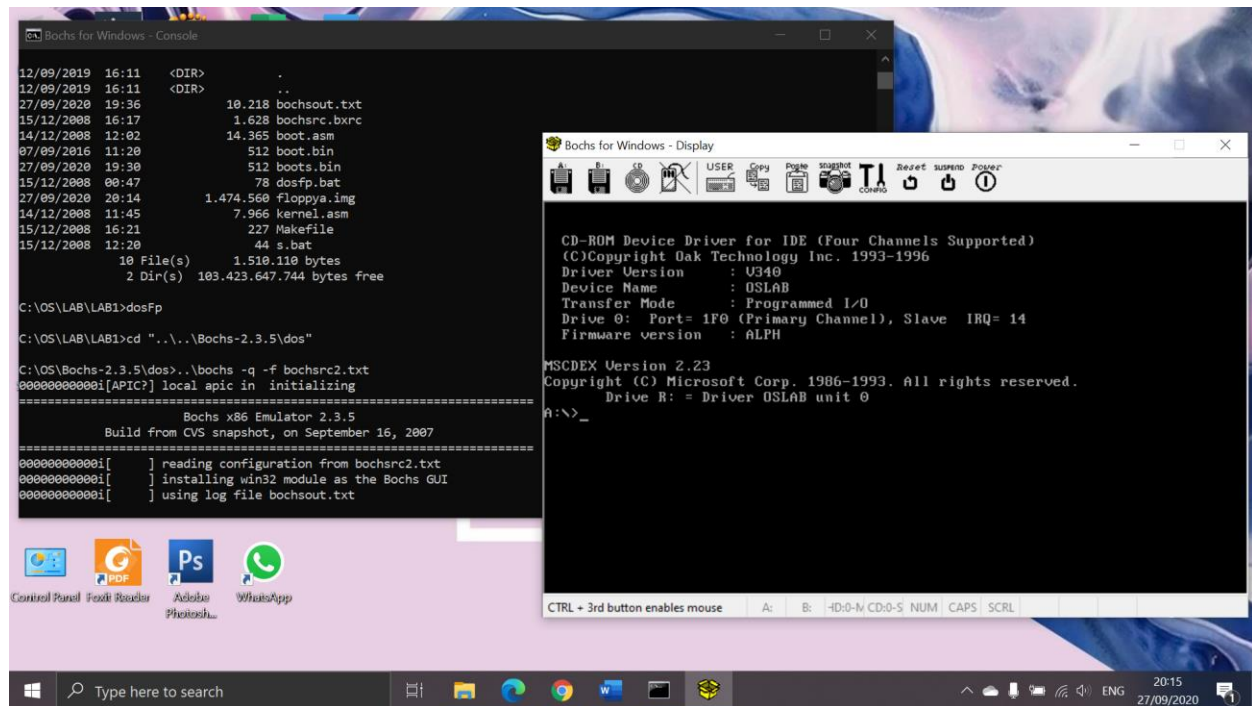
The following line should appear in your bochsrc:
floppya: image="floppya.img", status=inserted
(The line is stored in your windows clipboard, use CTRL-V to paste)

Press any key to continue

C:\OS\LAB\LAB1>dir
Volume in drive C has no label.

Type here to search
```

## MEMBUKA BOCHS:



```
Bochs for Windows - Console
C:\OS\LAB\LAB1>dir
Volume in drive C has no label.
Volume Serial Number is B666-27C5

Directory of C:\OS\LAB\LAB1

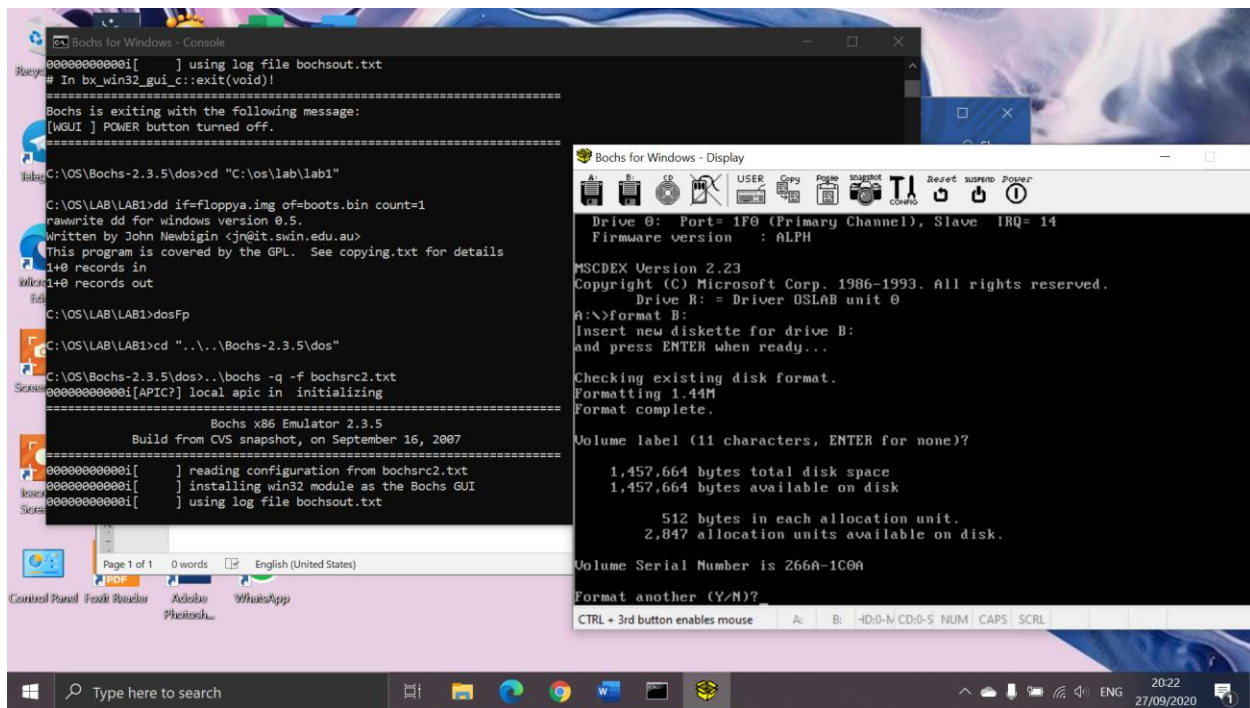
12/09/2019  16:11    <DIR>          .
12/09/2019  16:11    <DIR>          ..
27/09/2020  19:36                10,218 bochsout.txt
15/12/2008  16:17                1,628 bochsrc.bxrc
14/12/2008  12:02                14,365 boot.asm
07/09/2016  11:20                 512 boot.bin
27/09/2020  19:30                 512 boots.bin
15/12/2008  00:47                 78 dosfp.bat
27/09/2020  20:14            1,474,560 floppy.img
14/12/2008  11:45                7,966 kernel.asm
15/12/2008  16:21                 227 Makefile
15/12/2008  12:20                 44 s.bat
               10 File(s)          1,510,110 bytes
               2 Dir(s)  103,423,647,744 bytes free

C:\OS\LAB\LAB1>dosFp

C:\OS\LAB\LAB1>cd "..\..\Bochs-2.3.5\dos"

C:\OS\Bochs-2.3.5>..\bochs -q -f bochsrc2.txt
00000000000i[APIC?] local apic in  initializing
=====
                Bochs x86 Emulator 2.3.5
                Build from CVS snapshot, on September 16, 2007
=====
00000000000i[      ] reading configuration from bochsrc2.txt
00000000000i[      ] installing win32 module as the Bochs GUI
00000000000i[      ] using log file bochsout.txt
# In bx_win32_gui.c:exit(void)
=====
Bochs is exiting with the following message:
[WGUI ] POWER button turned off.
=====

C:\OS\Bochs-2.3.5>doscd "C:\os\lab\lab1"
```



```
Bochs for Windows - Console
00000000000i[      ] installing win32 module as the Bochs GUI
00000000000i[      ] using log file bochsout.txt
# In bx_win32_gui_c::exit(void)
=====
Bochs is exiting with the following message:
[VGUI ] POWER button turned off.
=====

C:\OS\Bochs-2.3.5>cd "C:\os\lab\lab1"

C:\OS\LAB\LAB1>
C:\OS\LAB\LAB1>dd if=floppya.img of=boots.bin count=1
rawwrite dd for windows version 0.5.
Written by John Newbigin <jn@it.swin.edu.au>
This program is covered by the GPL. See copying.txt for details
1+0 records in
1+0 records out

C:\OS\LAB\LAB1>tdump boots.bin
Turbo Dump Version 5.0.16.12 Copyright (c) 1988, 2000 Inprise Corporation
Display of File BOOTS.BIN

000000: EB 3C 90 4D 53 57 49 4E 34 2E 31 00 02 01 01 00 .<.MSWIN4.1....
000010: 02 E0 00 40 0B F0 09 00 12 00 02 00 00 00 00 00 ...@.....
000020: 00 00 00 00 00 00 29 0A 1C 6A 26 4E 4F 20 4E 41 .....j&NO NA
000030: 4D 45 20 20 20 20 46 41 54 31 32 20 20 20 33 C9 ME FAT12 3.
000040: 8E D1 BC FC 7B 16 07 BD 78 00 C5 76 00 1E 56 16 ....{...X..V..V.
000050: 55 BF 22 05 89 7E 00 89 4E 02 B1 08 FC F3 A4 06 U..."..N.....
000060: 1F BD 00 7C C6 45 FE 0F 38 4E 24 7D 20 8B C1 99 ...|.E..8NS} ...
000070: E8 7E 01 83 EB 3A 66 A1 1C 7C 66 38 07 8A 57 FC ~...f...|f;..W.
000080: 75 06 80 CA 02 88 56 02 80 C3 10 73 ED 33 C9 FE u...V...s..3..
000090: 06 D0 7D 8A 46 10 98 F7 66 16 03 46 1C 13 56 1E ..}.F...f..F..V.
0000A0: 03 46 05 13 D1 80 76 11 60 89 46 FC 09 56 FE B8 .F...v..F..V..
0000B0: 20 00 F7 F6 8B 5E 00 03 C3 48 F7 F3 01 46 FC 11 ....^..H..F..
0000C0: 4E FE 61 BF 00 07 E8 28 01 72 3E 38 2D 74 17 60 N.a....(r&S-t..
0000D0: 81 08 BE D8 7D F3 A6 61 74 3D 4E 74 00 83 C7 20 .....at&Nt....
0000E0: 3B F8 72 E7 E8 D0 FE 0E D8 7D 7B A7 BE 7F 7D AC ;r.....}{....
0000F0: 98 03 F0 AC 98 40 74 0C 48 74 13 B4 0E B8 07 00 .....@t.Ht.....
000100: CD 10 EB EF BE 82 7D EB E6 BE 80 7D EB E1 C0 16 .....key....IO
000110: 5E 1F 66 8F 04 CD 19 BE 81 7D 8B 7D 1A 8D 45 FE ^f.....}.E.
000120: 8A 4E 0D F7 E1 03 46 FC 13 56 FE B1 04 E8 C2 00 .N....F..V.....
```

```
Bochs for Windows - Console
000110: 5E 1F 66 8F 04 CD 19 BE 81 7D 8B 7D 1A 8D 45 FE ^f.....}.E.
000120: 8A 4E 0D F7 E1 03 46 FC 13 56 FE B1 04 E8 C2 00 .N....F..V.....
000130: 72 D7 EA 00 02 70 00 52 50 06 53 6A 01 6A 10 91 n....p.RP.Sj.j..
000140: 8B 46 18 A2 26 05 96 92 33 D2 F7 F6 91 F7 F6 42 .F..&...3.....B
000150: 87 CA F7 76 1A 8A F2 8A E8 C0 CC 02 0A CC B8 01 ...V.....
000160: 02 80 7E 02 0E 75 04 B4 42 8B F4 8A 56 24 CD 13 ..~..U..B...V$..
000170: 61 61 72 0A 40 75 01 42 03 5E 0B 49 75 77 C3 03 aar.@u.B.^Iuw..
000180: 18 01 27 00 0A 49 6E 76 61 6C 69 64 20 73 79 73 ...'.Invalid sys
000190: 74 65 6D 20 64 69 73 68 FF 0D 0A 44 69 73 68 20 tem disk...Disk
0001A0: 49 2F 4F 20 65 72 72 6F 72 FF 0D 0A 52 65 70 6C I/O error...Repl
0001B0: 61 63 65 20 74 68 65 20 64 69 73 68 2C 20 61 6E ace the disk, an
0001C0: 64 20 74 68 65 6E 20 70 72 65 73 73 20 61 6E 79 d then press any
0001D0: 20 68 65 79 00 0A 00 00 49 4F 20 20 20 20 20 20 key....IO
0001E0: 53 59 53 4D 53 44 4F 53 20 20 20 53 59 53 7F 01 SYMSDOS SYS..
0001F0: 00 41 B8 00 07 60 66 6A 00 E9 38 FF 00 00 55 AA .A...fj...U.

C:\OS\LAB\LAB1>..\bochs-2.3.5\bochs -q -f bochssrc.bxrc
00000000000i[APIC?] local apic in initializing
=====
Bochs x86 Emulator 2.3.5
Build from CVS snapshot, on September 16, 2007
=====
00000000000i[      ] reading configuration from bochssrc.bxrc
00000000000i[      ] installing win32 module as the Bochs GUI
00000000000i[      ] using log file bochsout.txt
# In bx_win32_gui_c::exit(void)
=====
Bochs is exiting with the following message:
[VGUI ] POWER button turned off.
=====

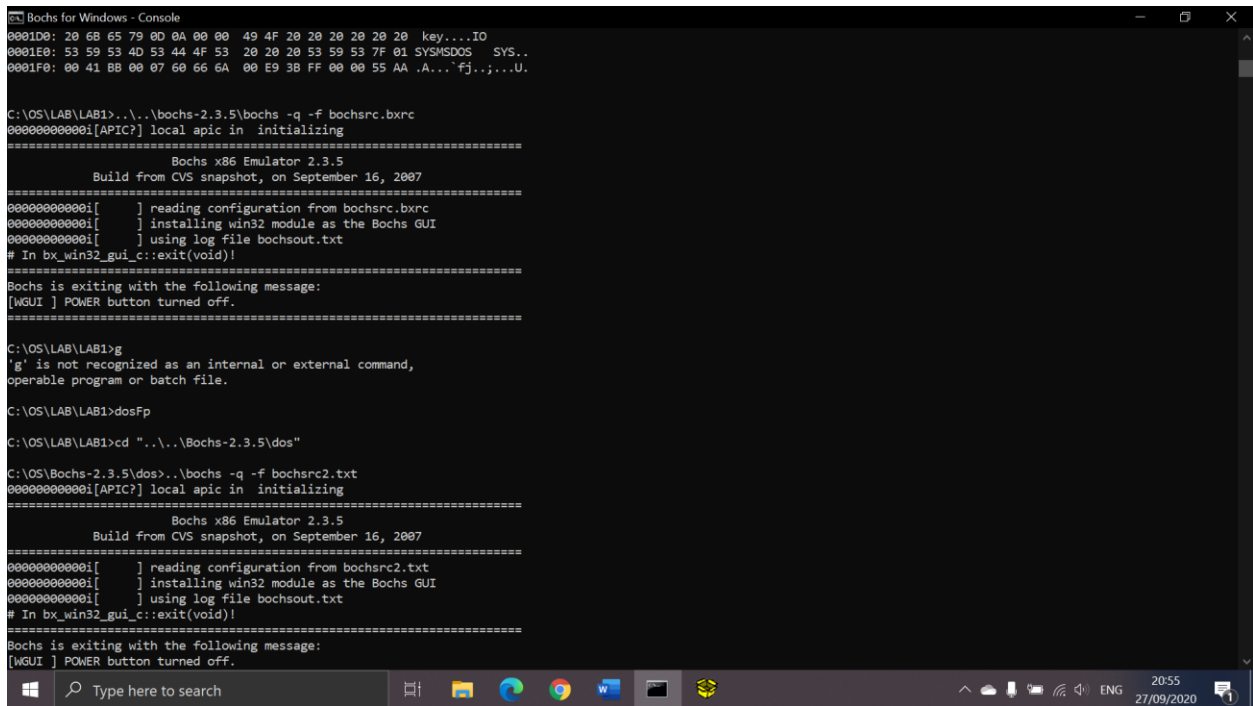
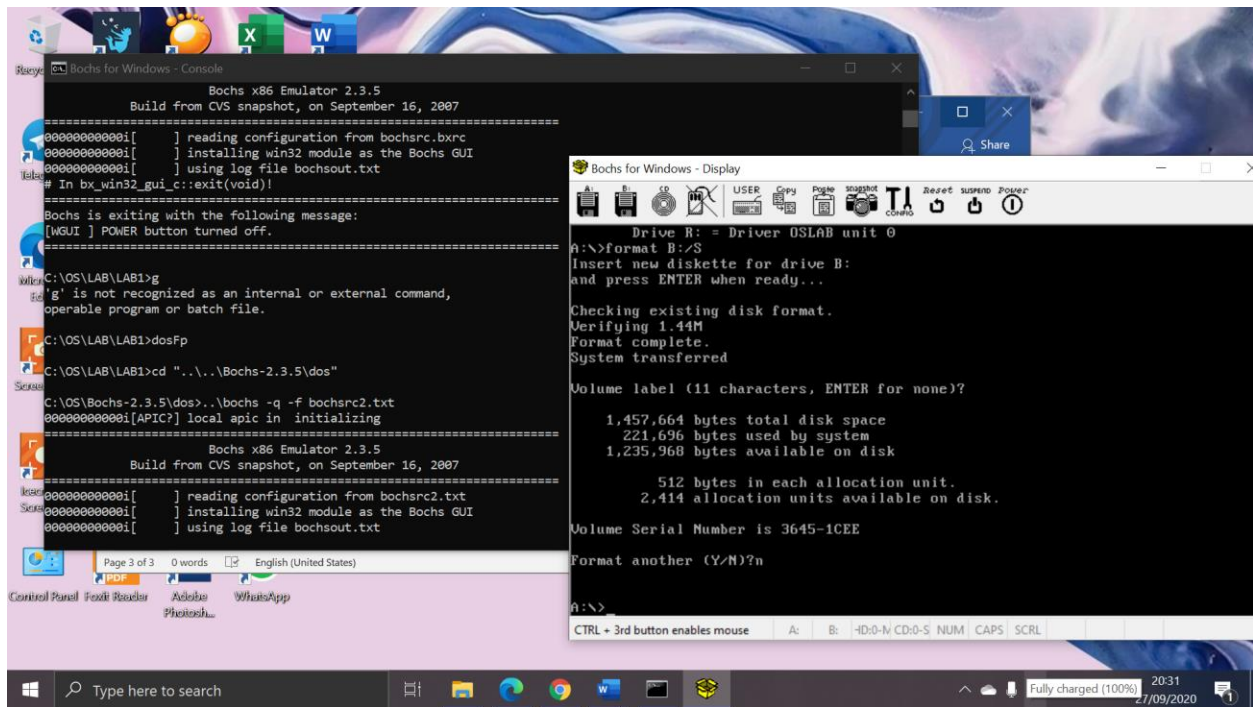
C:\OS\LAB\LAB1>g
'g' is not recognized as an internal or external command,
operable program or batch file.

C:\OS\LAB\LAB1>dosFp

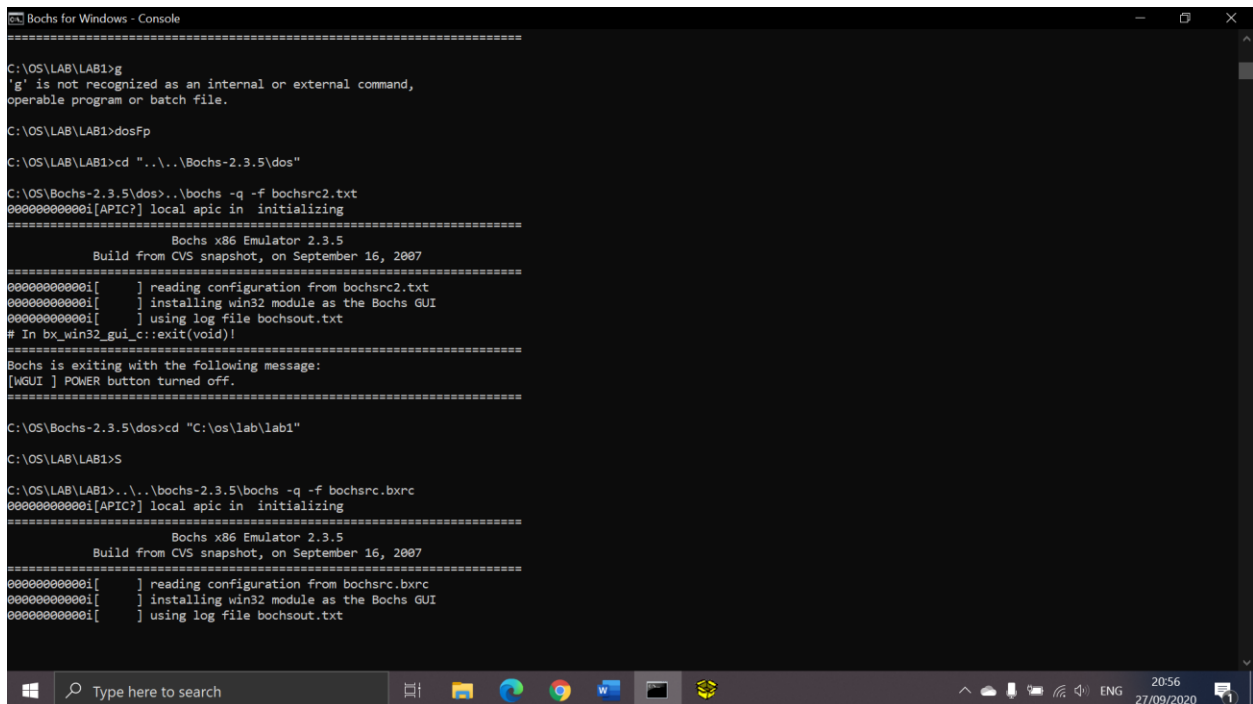
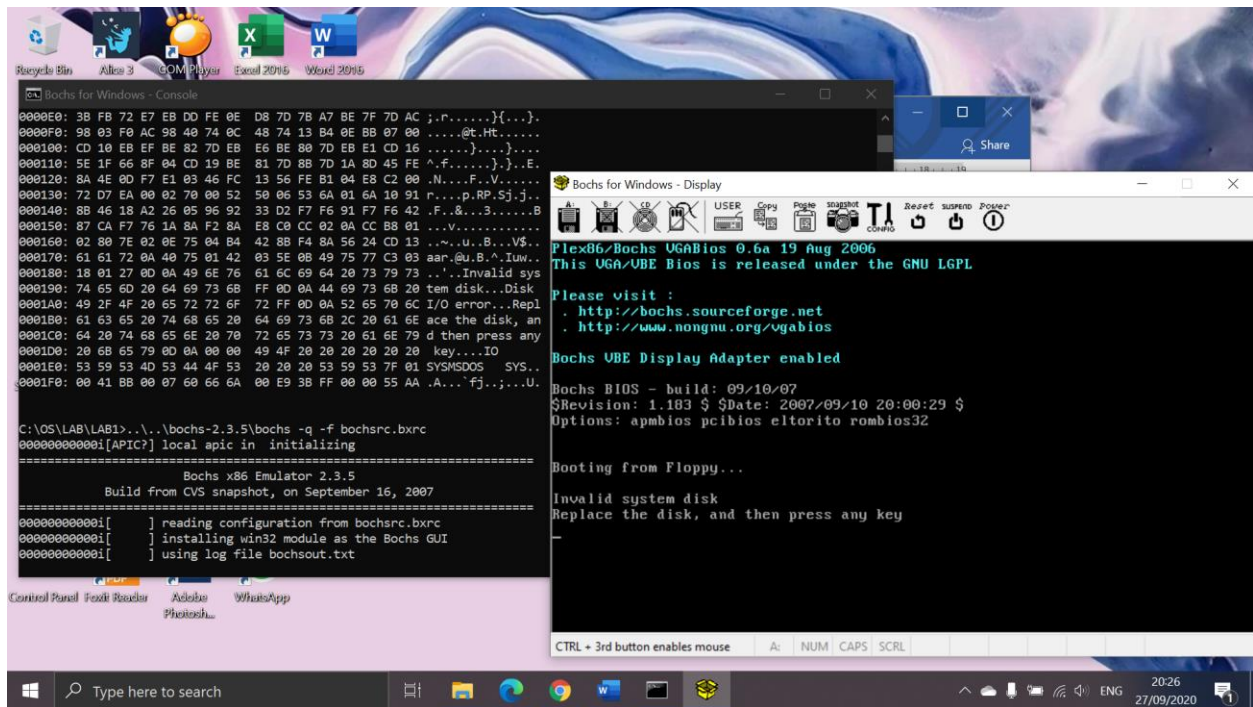
C:\OS\LAB\LAB1>cd "..\..\Bochs-2.3.5\dos"

C:\OS\Bochs-2.3.5>..\bochs -q -f bochssrc2.txt
```





## FILE FLOPPY YANG BELUM BISA BOOTING



## FILE FLOPPY SUDAH BISA BOOTING

