

**PRAKTIKUM SISTEM OPERASI
MENGENAL PROSES PEMBUATAN “DISK BOOT”**



Penyusun:

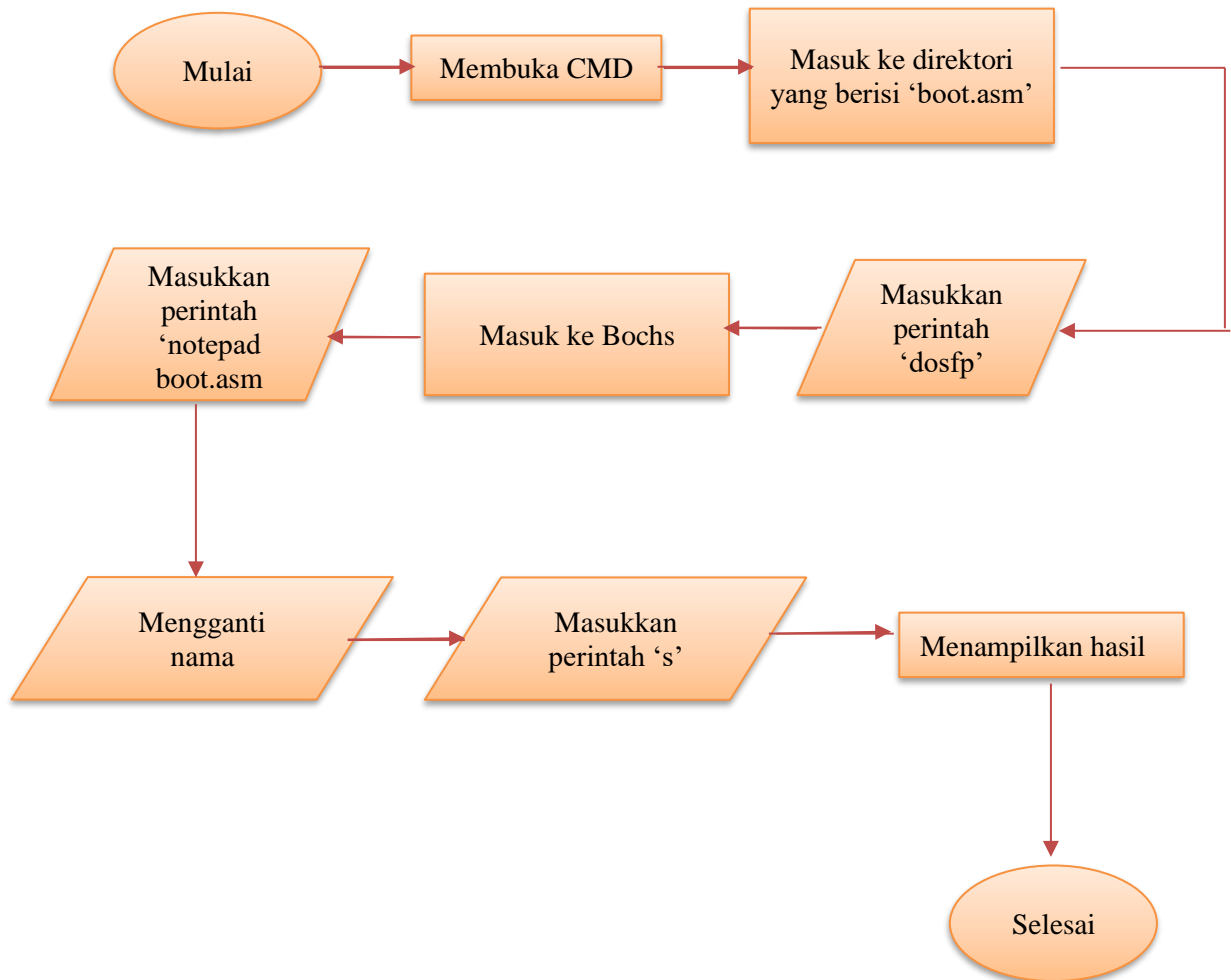
Nama	:	Della Fitria Lestari
NIM	:	L200219268
Kelas	:	E
Mata Kuliah	:	Praktikum Sistem Operasi
Program Studi	:	Informatika

**PROGRAM STUDI TEKNIK INFORMATIKA
FAKULTAS KOMUNIKASI DAN INFORMATIKA
UNIVERSITAS MUHAMMADIYAH SURAKARTA**

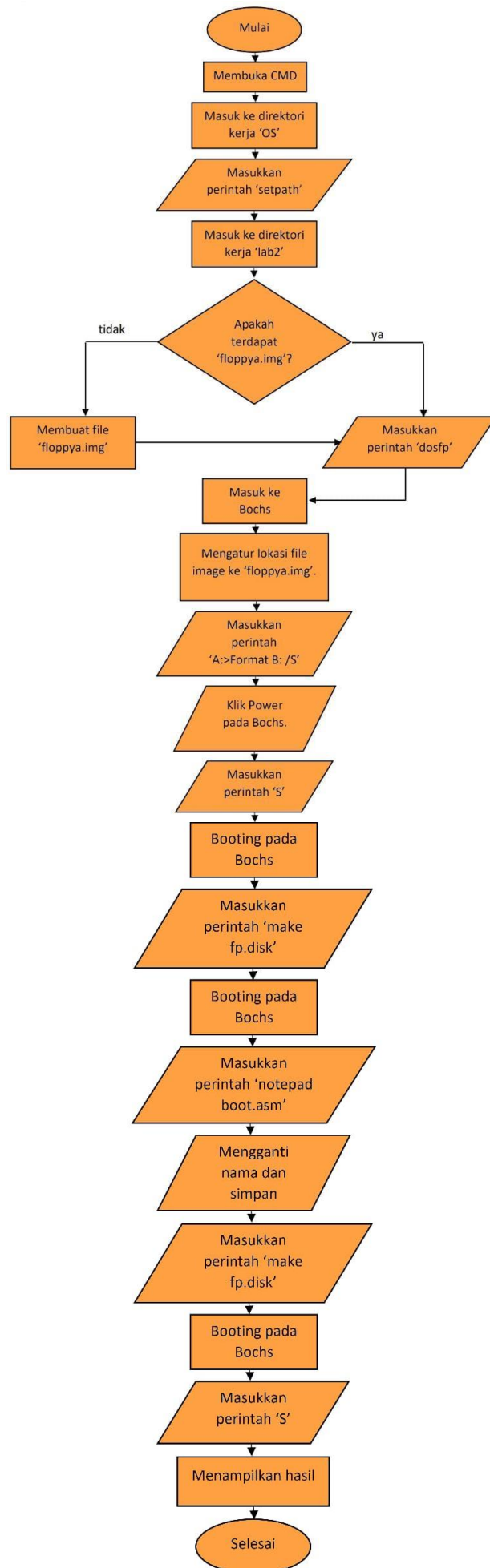
2021

TUGAS

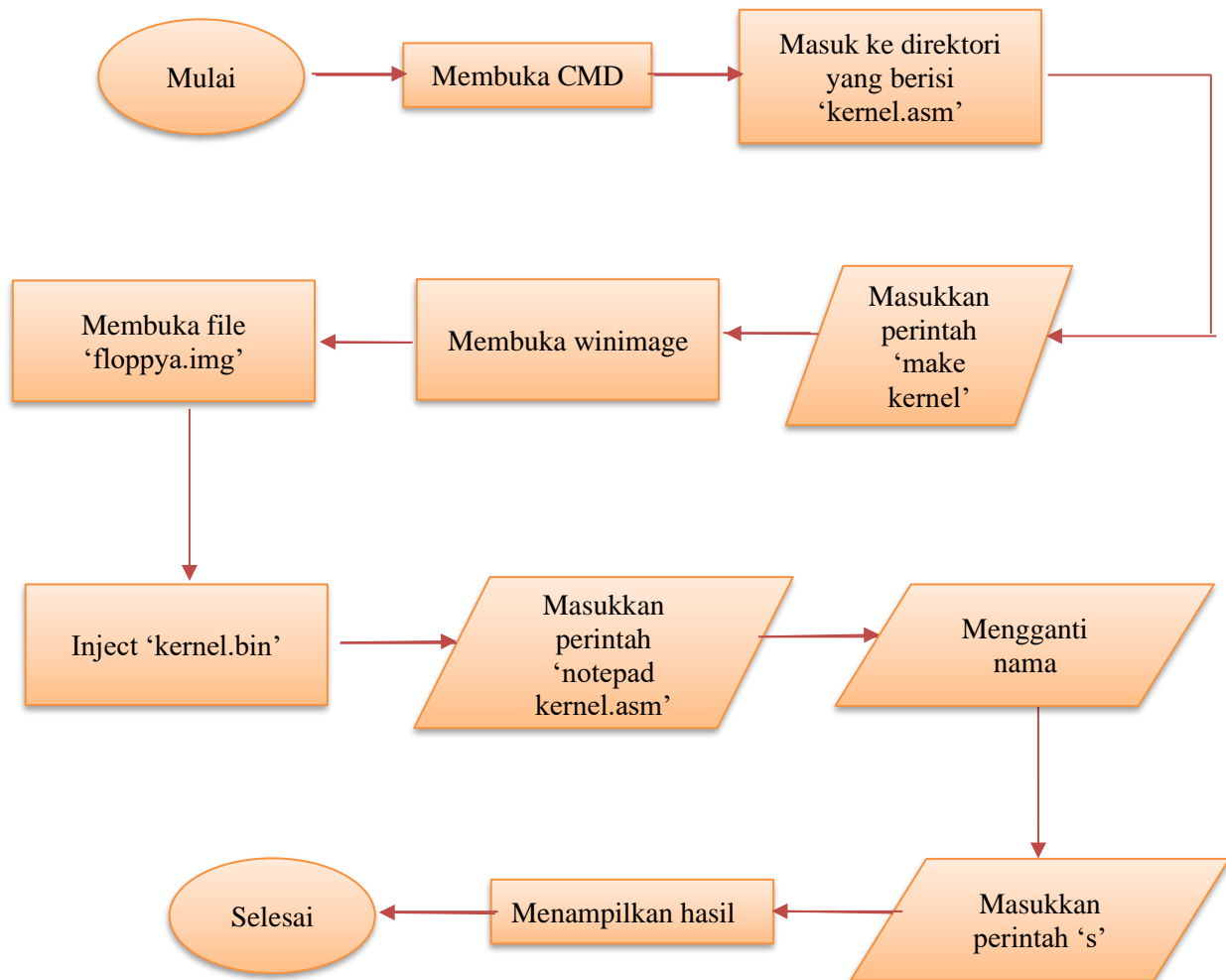
- a. Algoritma program boot.asm dalam bentuk flowchart yang bersifat global :



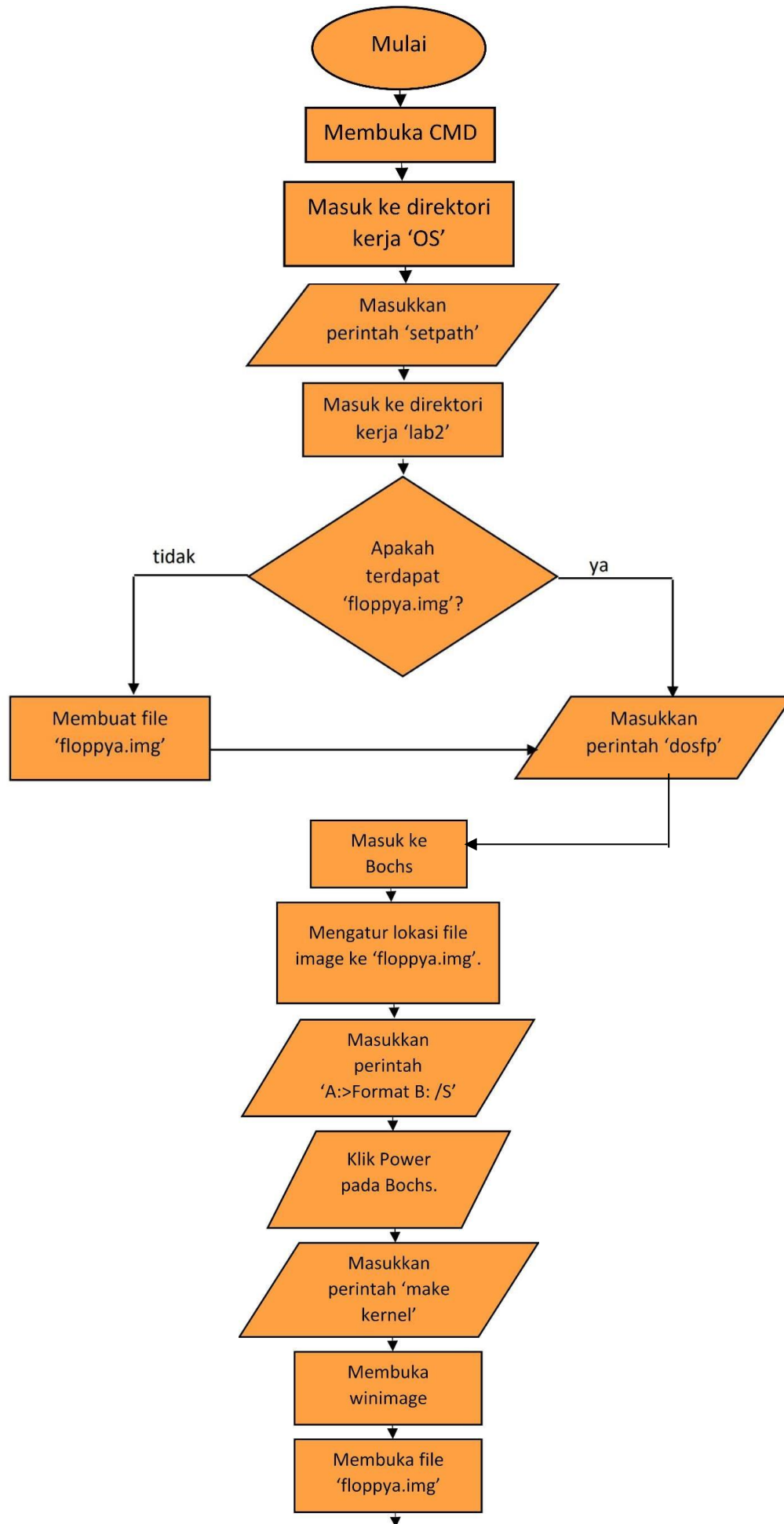
b. Algoritma program boot.asm dalam bentuk flowchart yang bersifat lebih detail :

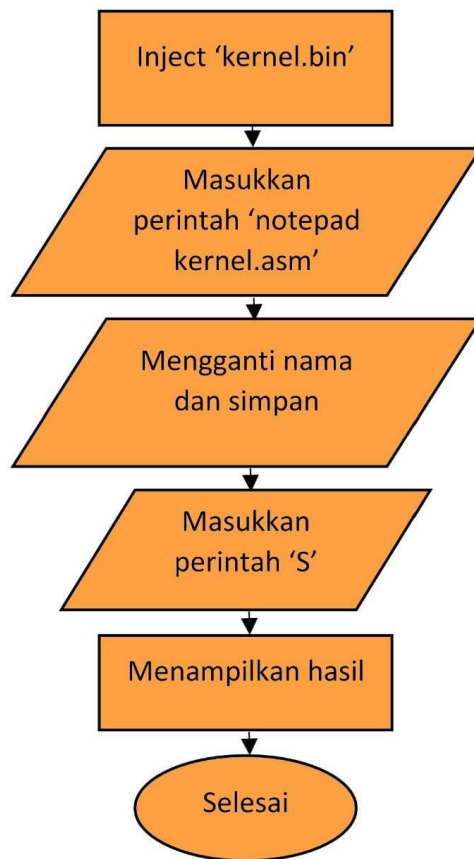


2. a. Algoritma program kernel.asm dalam bentuk flowchart yang bersifat global :

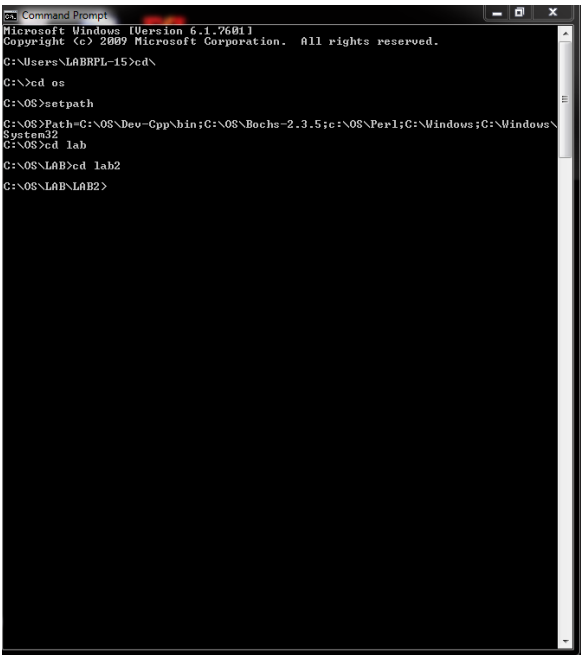


b. Algoritma program kernel.asm dalam bentuk flowchart yang bersifat lebih detail :






Langkah Kerja

- 

```
Microsoft Windows [Version 6.1.7601]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\LABRPL-15>cd\
C:\>cd os
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>cd lab2
C:\OS\LAB\LAB2>
```
- 

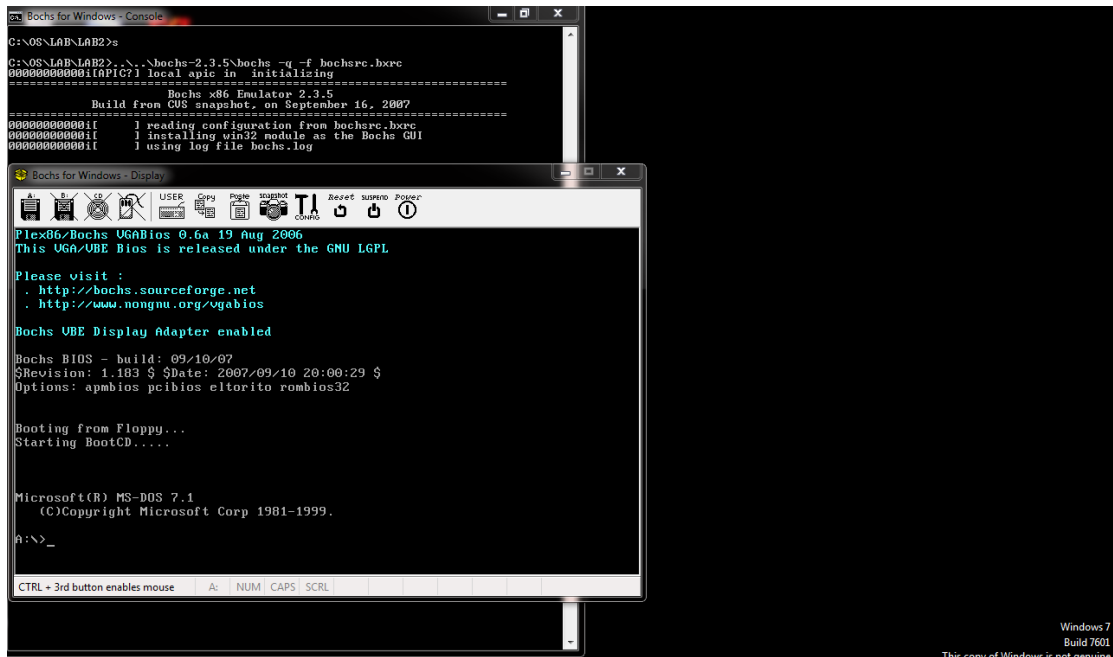
```
C:\OS\LAB\LAB2>hxiimage
-----
Disk Image Creation Tool for Bochs
$Id: hxiimage.c,v 1.32 2006/06/16 07:29:33 wruppert Exp $
-----
Do you want to create a floppy disk image or a hard disk image?
Please type hd or fd. [hd] fd
Choose the size of floppy disk image to create, in megabytes.
Please type 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] floppya.img
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\LAB2>dir
Volume in drive C: has no label.
Volume Serial Number is 7EB8-280B

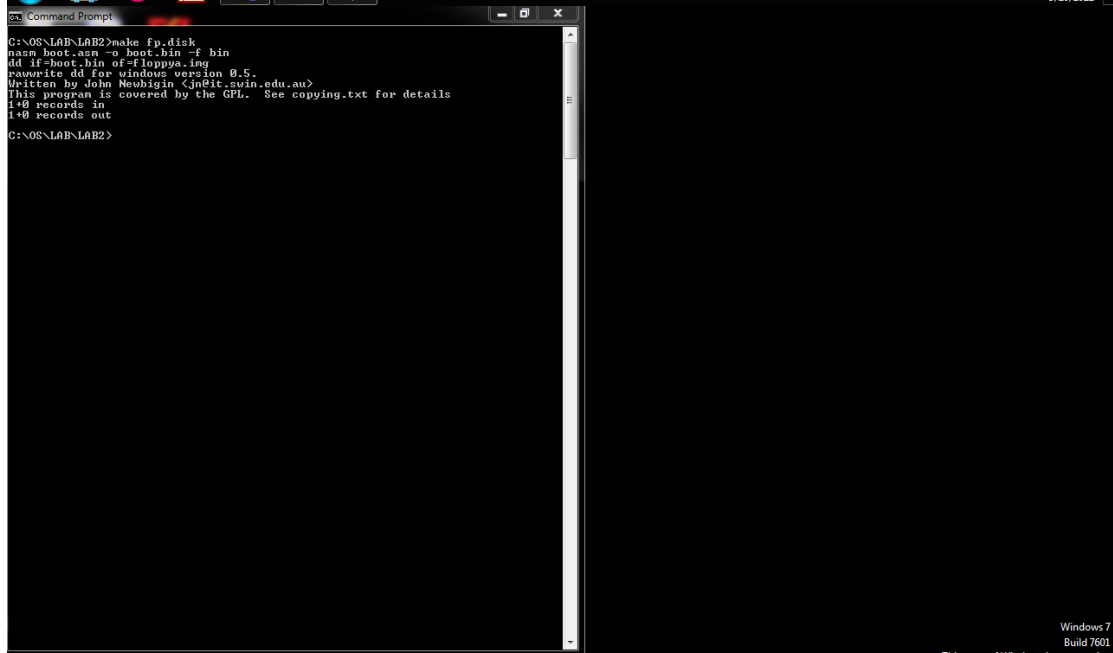
Directory of C:\OS\LAB\LAB2

09/20/2022  01:36 AM    <DIR>          .
09/20/2022  01:36 AM    <DIR>          ..
09/20/2022  01:35 AM             1,474,560 a.img
09/20/2022  01:29 AM             19,153 bochs.log
12/15/2008  04:18 PM             1,625 bochssrc.bsrc
09/20/2022  01:32 AM             15,927 boot.asm
09/20/2022  01:28 AM              512 boot.bin
12/15/2008  01:52 PM              78 dosfp.bat
09/20/2022  01:36 AM             1,474,560 floppya.img
09/20/2022  12:15 AM             7,959 kernel.asm
12/15/2008  04:21 PM              228 Makefile
12/15/2008  12:20 PM              44 s.bat
                10 File(s)      2,985,646 bytes
                2 Dir(s)      136,196,759,552 bytes free

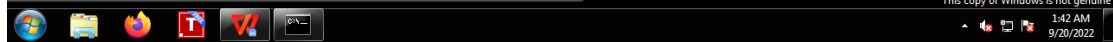
C:\OS\LAB\LAB2>
```

6.



7.




```
bootasm - Notepad
File Edit Format View Help

xor     dx, dx                ; prepare dx:ax for operation
div     WORD [NumHeads]       ; calculate
mov     BYTE [absoluteHead], dl
mov     BYTE [absoluteTrack], al
ret

=====
; Definisi VARIABEL umum
=====
absoluteSector db 0x00
absoluteHead   db 0x00
absoluteTrack  db 0x00

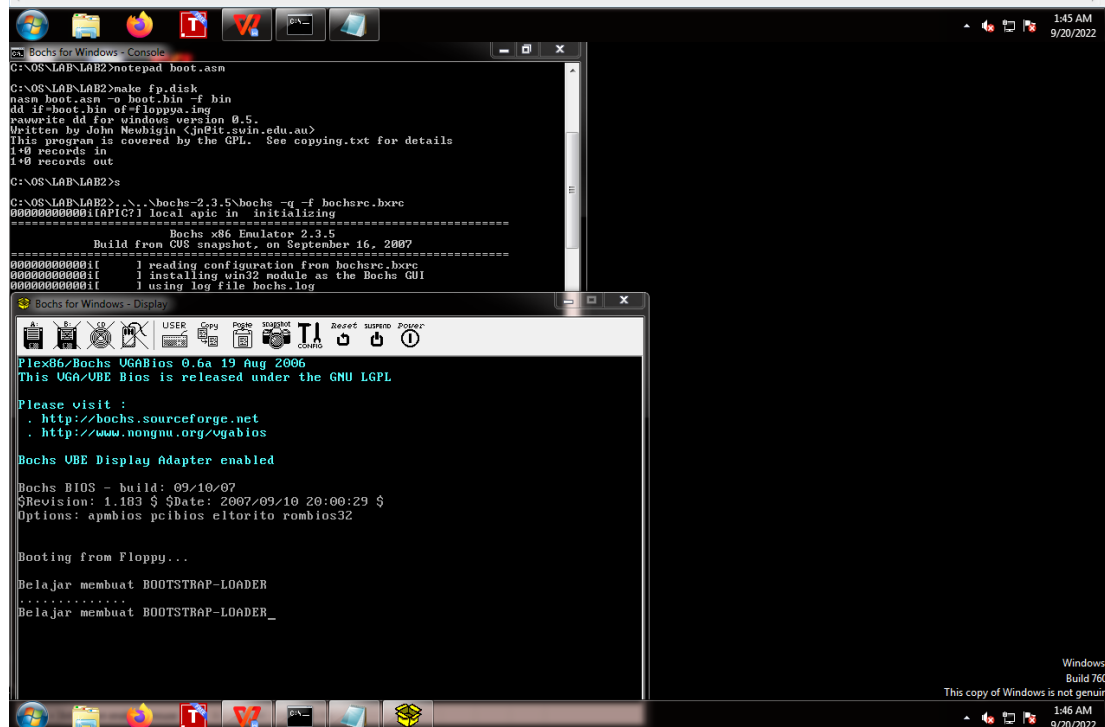
dataSector     dw 0x0000
cluster        dw 0x0000

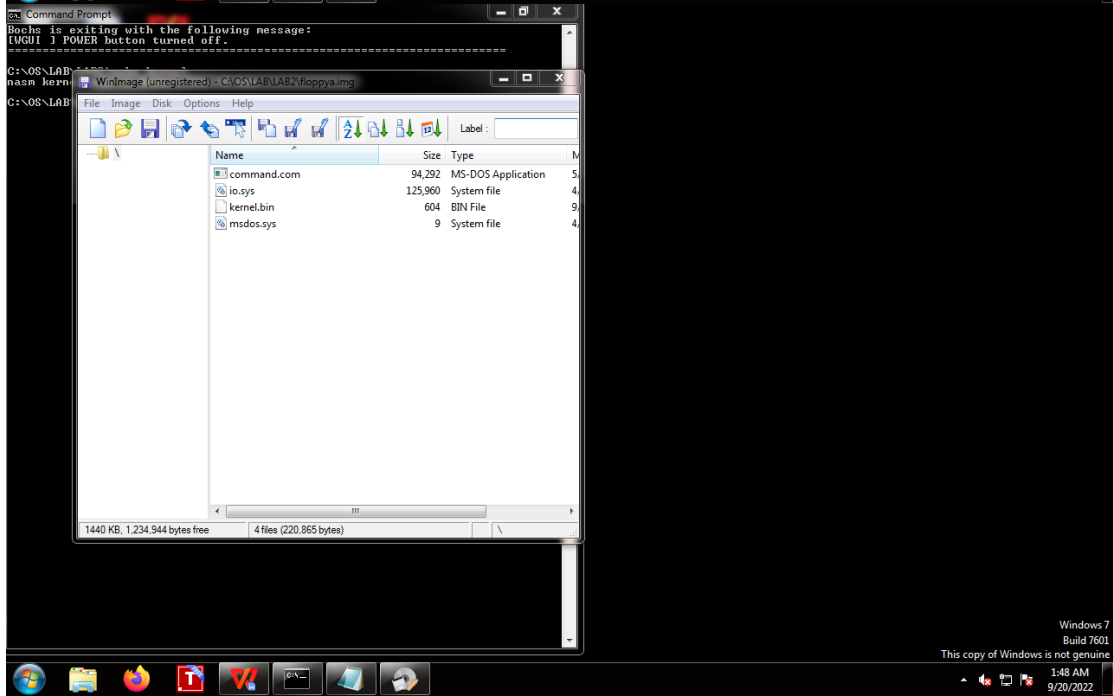
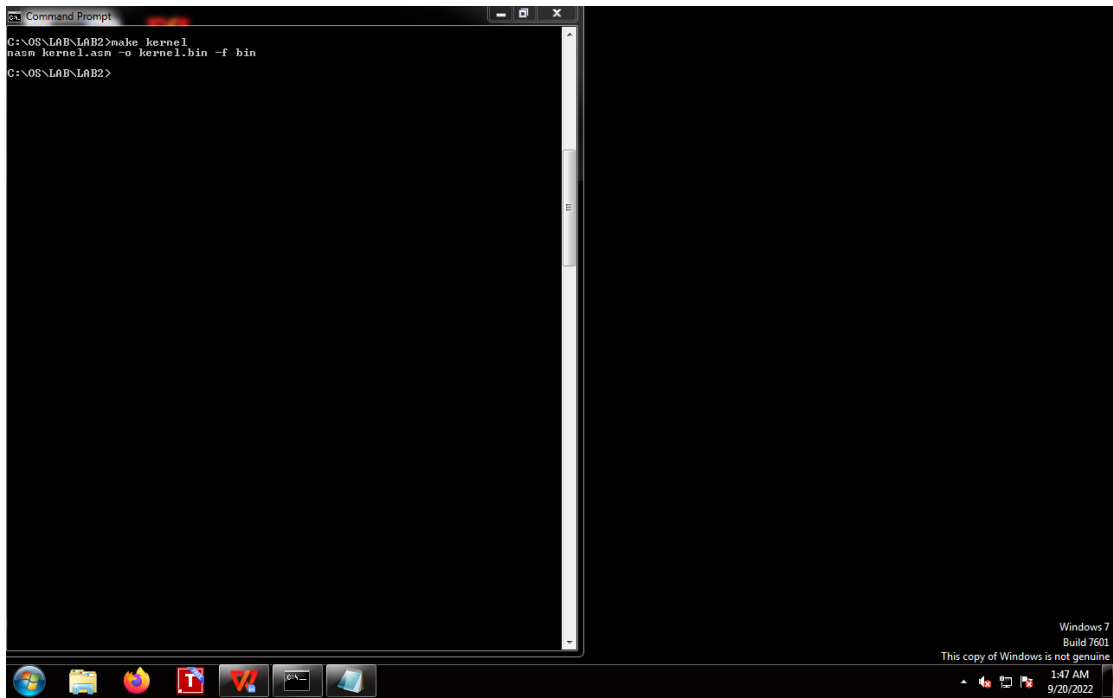
=====
; Definisi NAMA file OS/kernel
; 11 karakter: terdiri dari
; 8 karakter untuk nama file,
; 3 karakter untuk ekstensi
; Tanpa TITIK : pemisah
; perintah 'dir' akan menampilkan 'KERNEL.BIN'
=====
ImageName db "KERNEL.BIN"

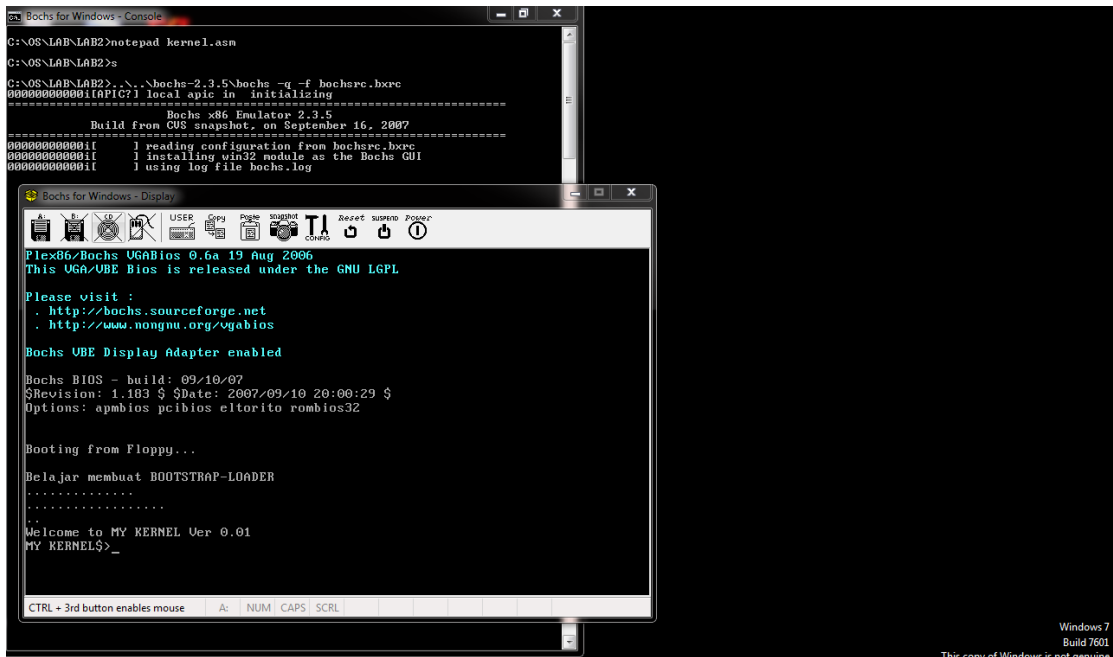
=====
; Teks yang akan ditampilkan saat mulai proses
; BOOT : Loading kernel ver 0.01
; Di awali dan diakhiri dengan tanda :
; -- 0x0D akhir baris
; -- 0x0A baris baru
; -- 0x00 Karakter 'NULL' pembatas dengan data di bawahnya
=====
msgLoading db 0x0D, 0x0A, "Belajar membuat BOOTSTRAP-LOADER", 0x0D, 0x0A, 0x00
msgCRLF   db 0x0D, 0x0A, 0x00
msgProgress db "...", 0x00
msgFailure db 0x0D, 0x0A, "Belajar membuat BOOTSTRAP-LOADER", 0x00

=====
; Teks yang di tampilkan saat terjadi kesalahan BOOT
=====

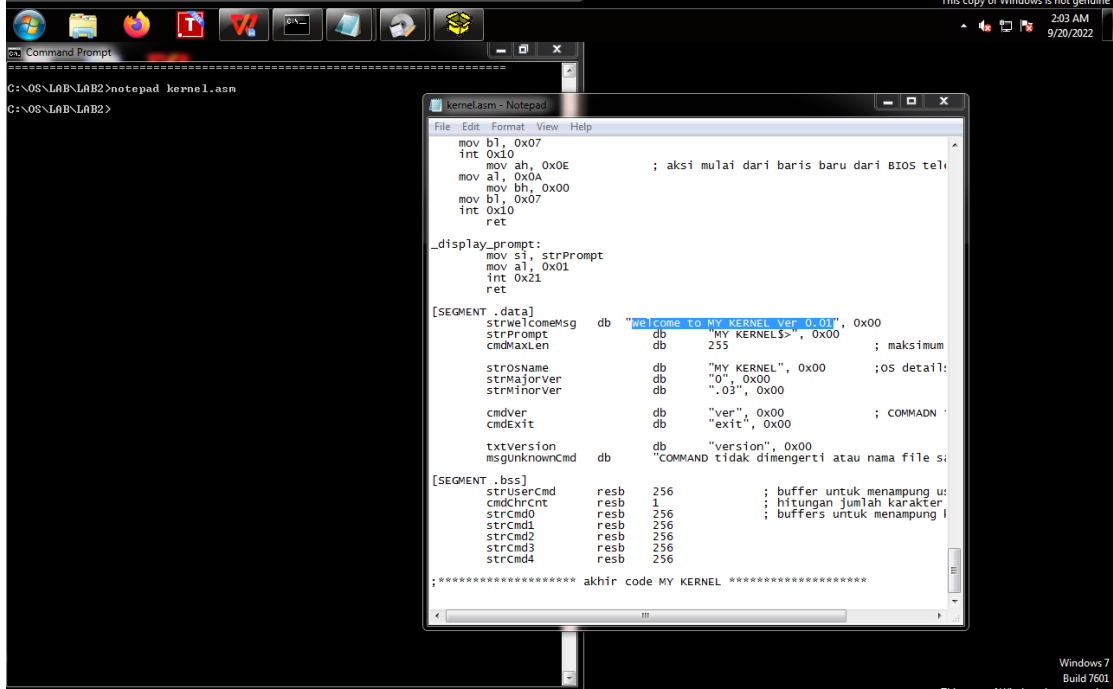
=====
; (4) BLOK BOOT SIGNATURE
=====
TIMES 510-($-$$) DB 0
DW 0xAA55
;*****
```







12.



13.

