

CS314 Operating System Spring 2024

Exercise Questions on April 9th, 2024

EXERCISE #1:

If your PC is stuck when you see the following screen, where did the problem happen (select one from the following options)?

When your PC is using:

- (a) BIOS ROM
- (b) The boot-strap loader in MBR
- (c) The partition table in MBR
- (d) IPL (the OS loader)
- (e) Somewhere not in the above

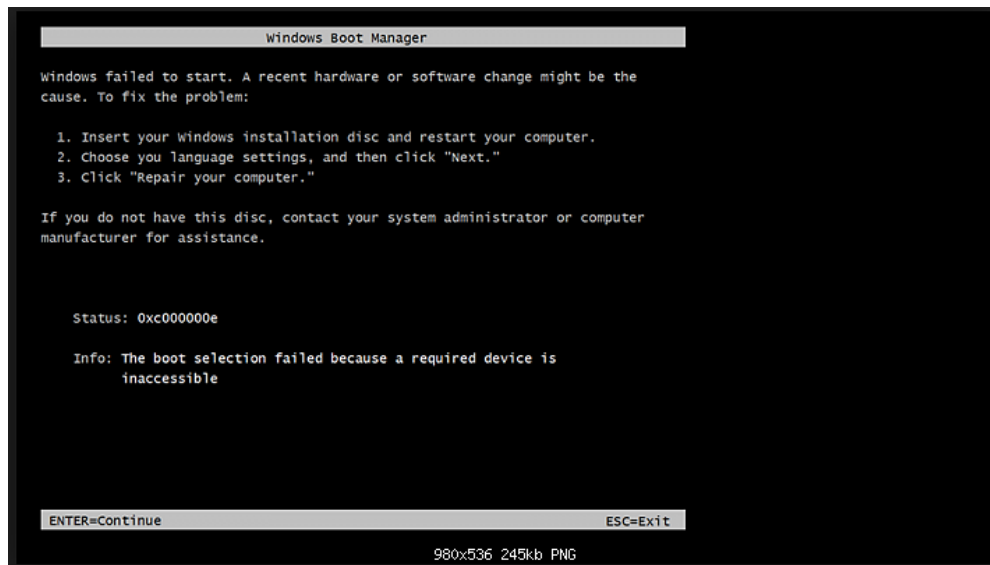


EXERCISE #2:

If your PC is stuck when you see the following screen, where did the problem happen (select one from the following options)?

When your PC is using:

- (a) BIOS ROM
- (b) The boot-strap loader in MBR
- (c) The partition table in MBR
- (d) IPL (the OS loader)
- (e) The target OS
- (f) Somewhere not in the above



EXERCISE #3:

If your PC is stuck when you see the following screen, where did the problem happen (select one from the following options)?

When your PC is using:

- (a) BIOS ROM
- (b) The boot-strap loader in MBR
- (c) The partition table in MBR
- (d) IPL (the OS loader)
- (e) The target OS
- (f) Somewhere not in the above

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Award Modular BIOS v6.00PG, An Energy Star Ally
Copyright (C) 1984-2007, Award Software, Inc.

Intel X38 BIOS for X38-DQ6 F4

Main Processor : Intel(R) Core(TM)2 Extreme CPU X9650 @ 4.00GHz (333x12)
<CPUID:0676 Patch ID:0000>
Memory Testing : 2096064K OK

Memory Runs at Dual Channel Interleaved
IDE Channel 0 Slave : WDC WD3200AAJS-00RYA0 12.01B01
IDE Channel 1 Slave : WDC WD3200AAJS-00RYA0 12.01B01

Detecting IDE drives ...
IDE Channel 4 Master : None
IDE Channel 4 Slave : None
IDE Channel 5 Master : None
IDE Channel 5 Slave : None

<DEL>:BIOS Setup <F9>:XpressRecovery2 <F12>:Boot Menu <End>:QFlash
09/19/2007-X38-ICH9-6A79060QC-00
```

EXERCISE #4:

If the IPL (only the contents of the IPL, but nothing else) of an operating system you installed to your computer system is damaged (the contents in the IPL are screwed up), what information you most probably lose?

Assume that location of the IPL in a partition (it's always at the beginning of a partition) and size of the IPL is constant (will never change) no matter when and how you install the OS).

- (a) Users' accounts in the OS
- (b) Users' files
- (c) OS configurations (desktop images, and other settings each user in a computer system have set up before the problem happens).
- (d) None of the above

EXERCISE #5:

What should you do if:

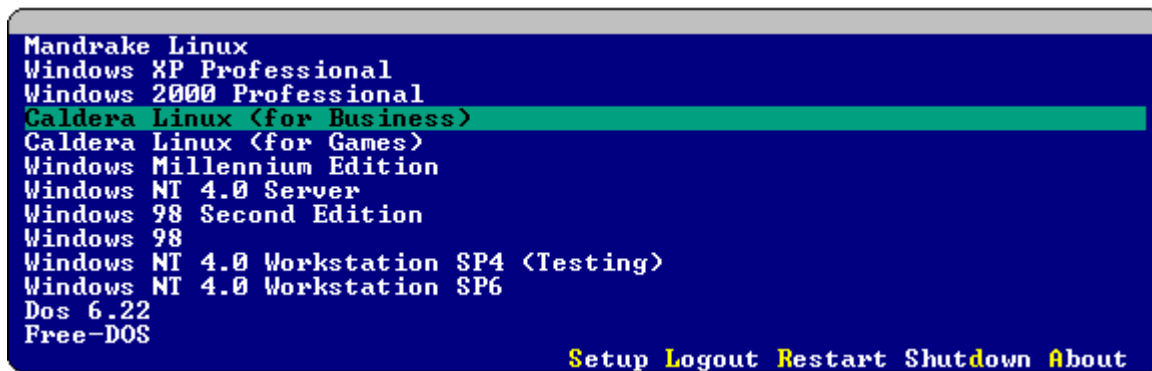
- (a) BIOS (boot) ROM is damaged?
- (b) MBR is damaged?
- (c) IPL is damaged?

Use the same assumptions you used for EXERCISE #4 above.

EXERCISE #6:

The following is a snapshot of “multi-boot” disk utility tool. Where should such a “multi-boot tool” be installed?

- (a) BIOS ROM
- (b) The boot-strap loader in MBR
- (c) The partition table in MBR
- (d) IPL (the OS loader)
- (e) The target OS
- (f) Somewhere not in the above



A screenshot of a multi-boot disk utility tool. The interface is a dark blue window with white text. A list of operating systems is displayed, with 'Caldera Linux (for Business)' highlighted in green. At the bottom right, there are menu options: 'Setup', 'Logout', 'Restart', 'Shutdown', and 'About'.

```
Mandrake Linux
Windows XP Professional
Windows 2000 Professional
Caldera Linux (for Business)
Caldera Linux (for Games)
Windows Millennium Edition
Windows NT 4.0 Server
Windows 98 Second Edition
Windows 98
Windows NT 4.0 Workstation SP4 (Testing)
Windows NT 4.0 Workstation SP6
Dos 6.22
Free-DOS
Setup Logout Restart Shutdown About
```