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CptS 460

CS460 LAB#1 QUESTIONS

1. On Intel x86 based PCs, during booting, what does BIOS do? **Loads the first sector into memory and designates cpu as the boot processor**

How many sectors does BIOS load from the boot device?

One

Where in memory does BIOS load the booter?

0x0000:0x7C00

2. BIOS loads only 512 bytes of a booter into memory, which is only the

beginning part of the booter. How does the booter load the remaining part of the booter into memory?

It finds the bootable image in root and loads it into memory

3. Assume a COMPLETE booter is loaded at the segment 0x9000. WHY do we have to

set the CPU's segment registers CS,DS,SS,ES to 0x9000?

The booter is one segment memory model so all the addresses are referencing the beginning of the segment

4. How do you find the file /boot/mtx?

Go to root, find boot dir, get into init block, look for mtx

5. How to load the (disk) blocks of /boot/mtx to the segment 0x1000? **Load block into ESI, increment 1 kilo, load more blocks**