

**CS510 Languages and Low Level Programming:
Portfolio submission #3, Topic 5**

Due on April 30, 2016 at 11:59pm

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Attempted Topic:

Describe the key steps in a typical boot process, including the role of a bootloader.

1. The CPU is initialized
 1. Initialize itself when power is first applied or when the system is reset
 2. Basic self test
 3. Initialize registers to known states
 4. including the instruction pointer/program counter (On IA32, for example, eip is set to `0xFFFFFFFF0`, so the computer can begin executing programs. And those programs can initialize the devices. But only if those programs are in memory.
2. The memory contains the apps and data that we need
3. The devices are initialized and operational

CPU → SCAN DEVICES → FIND MBR → LOAD MBR → MBR CODE → GRUB → KERNEL + MODULES;