

CSCI 315 Operating Systems Design
Fall 2016 - Prof. Felipe Perrone
Activity 1

Work with one or two partners. Make sure that you ALL contribute to the discussion.

Consider the reading you did for today's class: *How Computers Boot Up*, by Gustavo Duarte. You have 25 minutes to seek answers to the following questions:

- a) What is the status of the RAM when you boot up a computer system?
- b) Where is the OS code when the machine is powered down?
- c) What is the first program that runs when a system is powered up?
- d) What is the purpose of the Power-on Self Test POST code?
- e) How is the system able to start running the code that will boot up the OS?
- f) What is the relationship between BIOS and the OS?
- g) How does the system find in which of possibly many mass storage devices the OS is stored?
- h) Why do disk drives have a *Master Boot Record* and also a *boot sector*?
- i) Assume that a computer system has just been powered up. Enumerate all the steps in boot sequence that happen *before* the first user process can start to execute.

Supplemental reading: <http://computer.howstuffworks.com/operating-system.htm>