

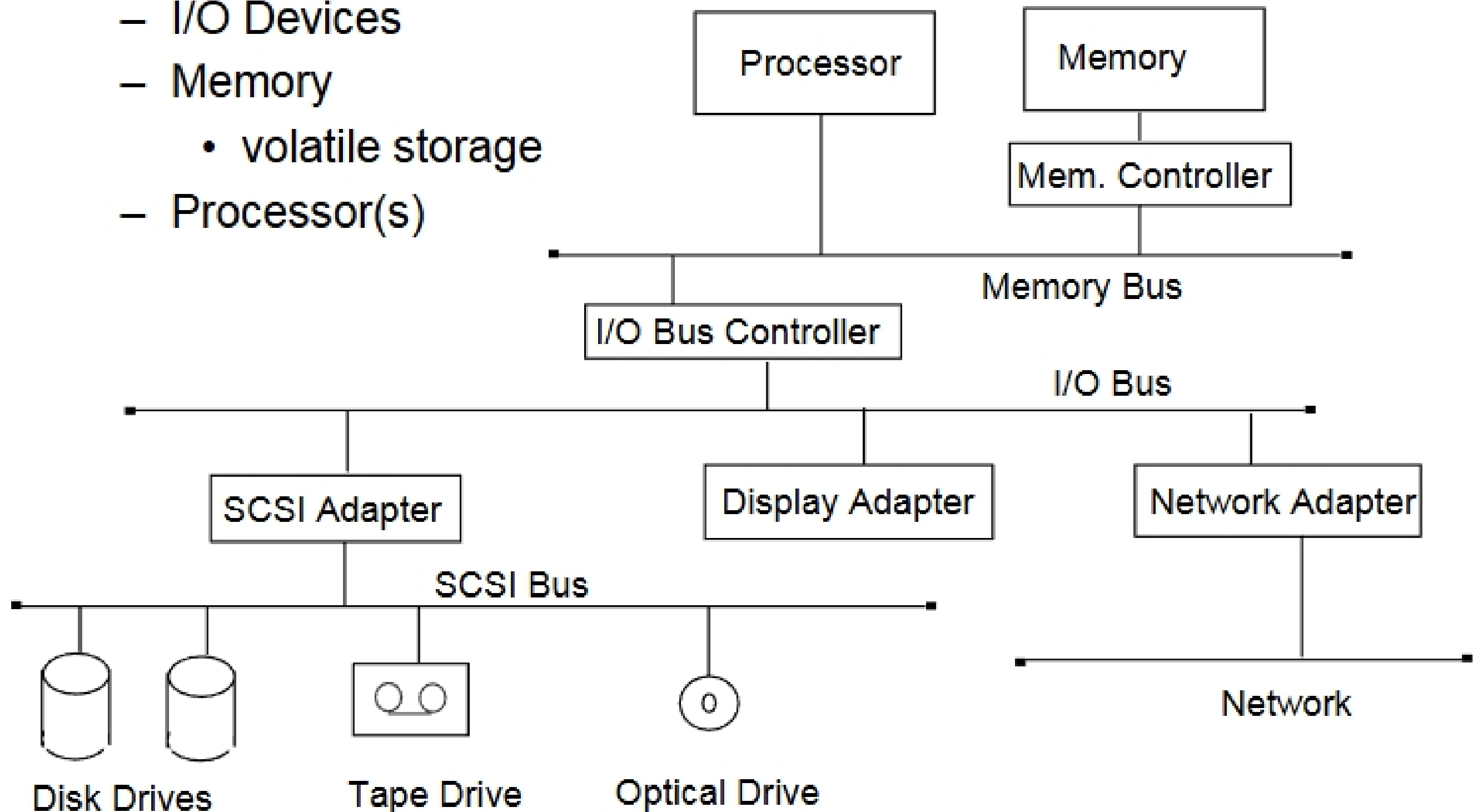
# Announcements

- Program #0
  - its due Tuesday
  - See note on web page about update to .bochsrc
- Cell Phones and Pagers
  - Must be to “off” or “vibrate” during class
  - Failure to comply will lower your grade in the class
- Reading
  - Chapter 2
  - Chapter 3 (for Tuesday)

# Computer Systems

- Computers have many different devices

- I/O Devices
- Memory
  - volatile storage
- Processor(s)



# I/O Systems

- Many different types of devices
  - disks
  - networks
  - displays
  - mouse
  - keyboard
  - tapes
- Each have a different expectation for performance
  - bandwidth
    - rate at which data can be moved
  - latency
    - time from request to first data back