

# CSC369 Week 5 Notes

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## 1 Memory Management

- Physical Memory vs Virtual Memory <sup>[1]</sup>
  - Physical Memory
    - \* Is RAM :)!!
    - \* Is the first memory used when computer requires memory such as loading application or OS
  - Virtual Memory
    - \* Is stored on hard drive
    - \* Is used when RAM is filled
    - \* Is slower than RAM

### References:

- 1) Tech Walla: What Is the Difference Between Virtual Memory & Physical Memory?, [link](#)

- Memory Management
  - Is the process of controlling and coordinating computer memory, by assigning portions known as **blocks** to various programs <sup>[1]</sup>

### References:

- 1) Guru 99: Memory Management in OS: Contiguous, Swapping, Fragmentation & Physical Memory?, [link](#)

- Fixed Partitioning

- Is the oldest and simplest technique to put more than one processes in the main memory. <sup>[1]</sup>
- Divides memory into regions with fixed boundaries.
  - \* Can be of equal size
  - \* Or unequal size
- Advantages: <sup>[1]</sup>
  - \* Is easy to implement
  - \* Requires lesser indirect computational power
- Disadvantages:
  - \* Memory is wasted if process is smaller than partition
  - \* Programmer must deal with programs larger than partition

**Refernces:**

1) Chegg Study: Fixed Partitions, [link](#)

- Dynamic Partitioning
- Paging
- Address Translation
- TLBS