03 – Database Storage 1

1. Disk Oriented Architecture
    A. DBMS manages movement of data between non-volatile and volatile storage. (volatile storage is fast but small, non-volatile is slow but large.)
    B. DBMS give users illusions like :
        i. Memory is very large as we need.
        ii. Disk access is not very slow

2. Why Not Use the OS?
    A. DBMS can do better than OS
    B. Control things with DBMS itself make problems more simple.

3. File Storage
    A. Custom filesystems
        i. Some enterprise DBMSs still support
        ii. But, this is not good idea (maybe because of compatibility)
4. Page Storage Architecture
    A. Page : fixed size block of data (unit of I/O)
    B. Database Heap
        i. Unordered collection of pages(Random order)
            1. Linked list
            2. Page directory
    C. Page structure
        i. Tuple Storage
        ii. Slotted pages
    D. Tuple attributes can be reordered
5. What is it?
    A. Denormalized tuple data