Data Structures

**A] Contiguously-allocated structures:** are composed of single slabs of memory. For example:

1. Arrays
2. Matrices
3. Heaps
4. Hash tables

**B] Linked data structures:**  are composed of distinct chunks of memory bound together by pointers

1. Lists
2. Trees
3. Graph adjacency lists

**A1] Arrays:** Structures of fixed-sized data records such that each element can be efficiently located by its index or address.

**PRO’s**

* Constant-time accessing elements provided the index
* Space effiency, no space is wasted with links or other formatting information
* Memory Locality

**CON’s**

* Cannot adjust an arrays size in the middle of a program’s execution

**B1] Lists:**