Data Structure is a collection of values
Algorithms are the steps/processes to manipulate these collection of values

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what is a data structure
- collection of values
  • Values can have relationships among them & functions applied
    to them
- each is specialized for its one purpose
✳ Metaphorical to different type of storage containers
  ⸱ a drawer, refrigerator, backpack
    ⸱ each has it's own specific uses

//Blockchain is also a data structure
Programming models to real-life scenarios
  - organization is akin to data structures

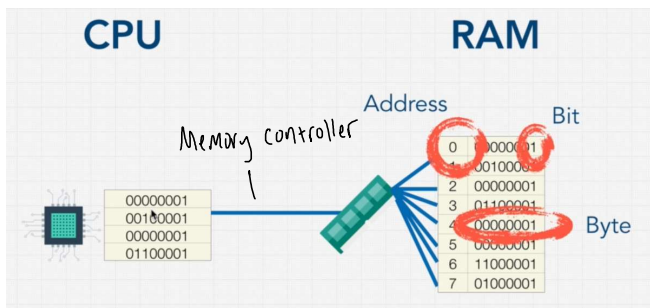To master data structures:
  1) How to build one
  2) How to use it (← more important, since D.S. is pre-built

Why D.S. is important:

CPU   RAM   Storage
 | | |
Computations   Temporary storage (fast)   Permanent storage (slow)
                [Variables, int a = 1]

optimize bits
  int vs double
    32 vs 64

age | money
using double to store an age
  is wasteful

The closer the memory, the faster the computer uses it.
  · kind of like the CPU cache

- D.S. is an arrangement of data, you define the way you interact with this data and how it is arranged in RAM
  . Some D.S. in RAM are organized next to each other or far away

* Goal is to: minimize the operation needed for the CPU to manipulate the information (insert, delete, etc)