30-Day C Language Learning Plan

Day 18: Dynamic Memory Allocation

1. Malloc and free demo

2. Array using malloc

Notes:

③ Why is it a demo?
  ↳ used malloc to allocate
     space for one integer.
  ↳ stores a value (100) in that
     memory.
  ↳ prints it to show it
     worked, uses **free**
     to release
     memory back to
     the system.

① MALLOC = memory allocation.

  ↳ asks the computer for a chunk
     of memory from the heap, while
     the program is running.

  ↳ tell malloc how many bytes you
     want, and it gives you a pointer
     to that memory.

  Ex:- malloc (sizeof (int)) asks
              for enough memory to
        store one int.

② what is FREE?

  ↳ free gives back that memory to the
     heap when done using it.

  ↳ if you don't free memory, you
     cause a memory leak.