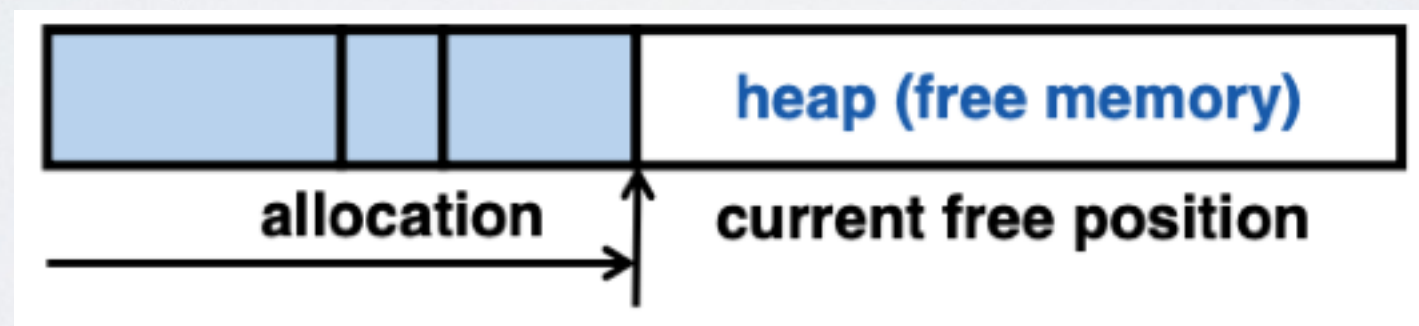


Heap allocation more concretely

- ➔ Manage contiguous range of logical addresses
 - `malloc(size)` returns a pointer to a block of memory of at least `size` bytes, or `NULL`
 - `free(ptr)` releases the previously- allocated block pointed to by `ptr`

Why is heap allocation hard?

- ➔ Satisfy arbitrary set of allocation and frees.
- ✓ Easy without free : set a pointer to the beginning of some big chunk of memory (heap) and increment on each allocation



- ⦿ Problem : free creates holes (fragmentation)
Lots of free space but cannot satisfy request!

