Managing Free Memory

Memory allocation

Static Allocation a.k.a stack allocation (fixed in size)
data structures that do not need to grow or shrink
such as global and local variables e.g. `char name[16];`

➡ done at compile time

✓ restricted, but simple and efficient

Dynamic Allocation a.k.a heap allocation (change in size)
data structure that might increase/decrease in size according to different
demands e.g `name = (char *) malloc(16);`

➡ done at run time

◉ general, but difficult to implement **(our focus today)**