Storage class … somewhat tied to scope in C

Automatic storage (on the stack—in the stack frame of a function)

1. Local variables go here (unless you move them to static storage by writing ‘static’ before the declaration).
2. Created during stack frame setup (function starts)
3. Filled with bits unless you initialize
4. Destroyed when stack frame torn down (function finished)
5. One copy per function execution (may be >1 at once, even)

Static storage (in the global data area—also stored on disk as part of executable)

1. Initialized to 0 by default (but don’t use that fact)
2. Exists for the lifetime of the program.
3. Exactly one copy (variable has one value; if you change it, it stays changed)

Dynamic storage (in the heap)

1. Created on demand.
2. Destroyed on demand.
3. No name.