

Here's how this works:

1. A static character array is used for the memory `memory_heap`. It has a fixed size, given by the `'HEAP_SIZE'` constant.
2. Blocks, or chunks of memory, are created during `malloc` calls. They are stored in a linked list.
3. When `free()` is called, the list is iterated through and if the given pointer points at a block that was allocated by `malloc()`, we `free()` it.
4. Upon exit, the list is iterated through to check for memory leaks.