

For Friday

- Read Weiss, chapter 1
- No homework
- C++ practice 5 due Monday

Notes on Dynamic Arrays

- Need three pieces of information associated with an array
 - Where's the data?
 - What's the capacity?
 - What's the size (current number of elements)?

Dynamic Classes

- Classes that use dynamic memory to store some/all of their data members
- Constructor typically allocates/initializes the dynamic portions of the class

Destructors

- Used to free the dynamically allocated portions of an object when the object is destroyed (either by delete or by going out of scope if statically allocated).
- Called ~classname
- Like constructor, has no return type
- Also always has no parameters

Assignment and Initialization

- What's the difference?

Assignment

- Default assignment operator
 - does a byte-by-byte copy of the object
 - Why is this an issue?
- Solution:
 - Create your own assignment operator
 - Either copy the pointer or the data as appropriate for your class
 - Must be a member function
 - Always returns `*this`

Initialization

- Copy Constructor

Files in C++

- ifstream
- ofstream
- Names must be c-strings
- Same basic operators

File reading loops

- No look ahead . . .
- Think sentinel