- Copy Control and Resource Management

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Ordinarily, classes that manage resources that do not reside in the class must define the copy-control members (copy constructor,move constructor,copy-assignment,destructor).For example, the data member allocated by `new` .

In order to define these members, we first have to decide what copying an object of our type wil mean. In general, we have two choices: We can define the copy operations to make the class behave like a value or like a pointer.

- Behave like values: when we copy a valuelike object, the copy and the original are independent of each ohter. Changes made to the copy have no effect on the original, and vice verse.(e.g. `string`)
- Behave like pointers:when we copy such objects, the copy and the original use the same underlying data. Changes made to the copy also change the original, and vice verse.(e.g., `shared_ptr`)