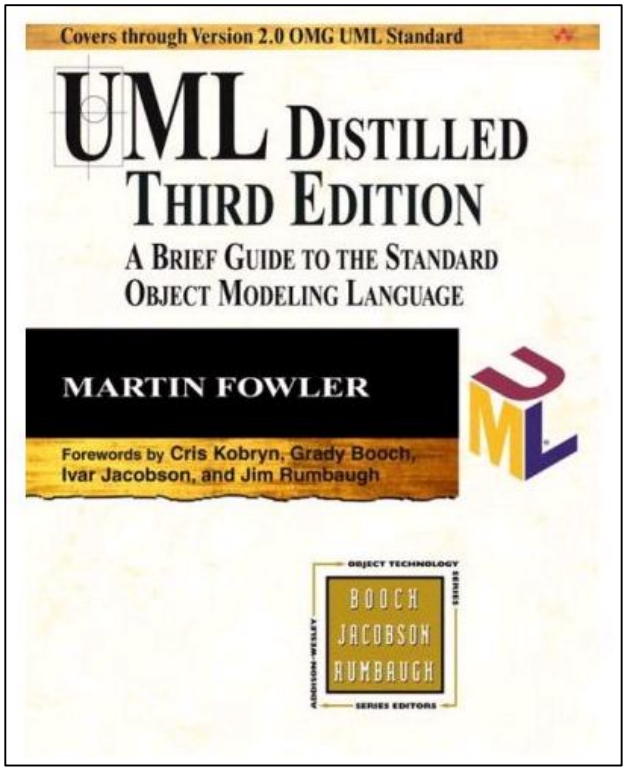
Unified Modeling Language (UML)



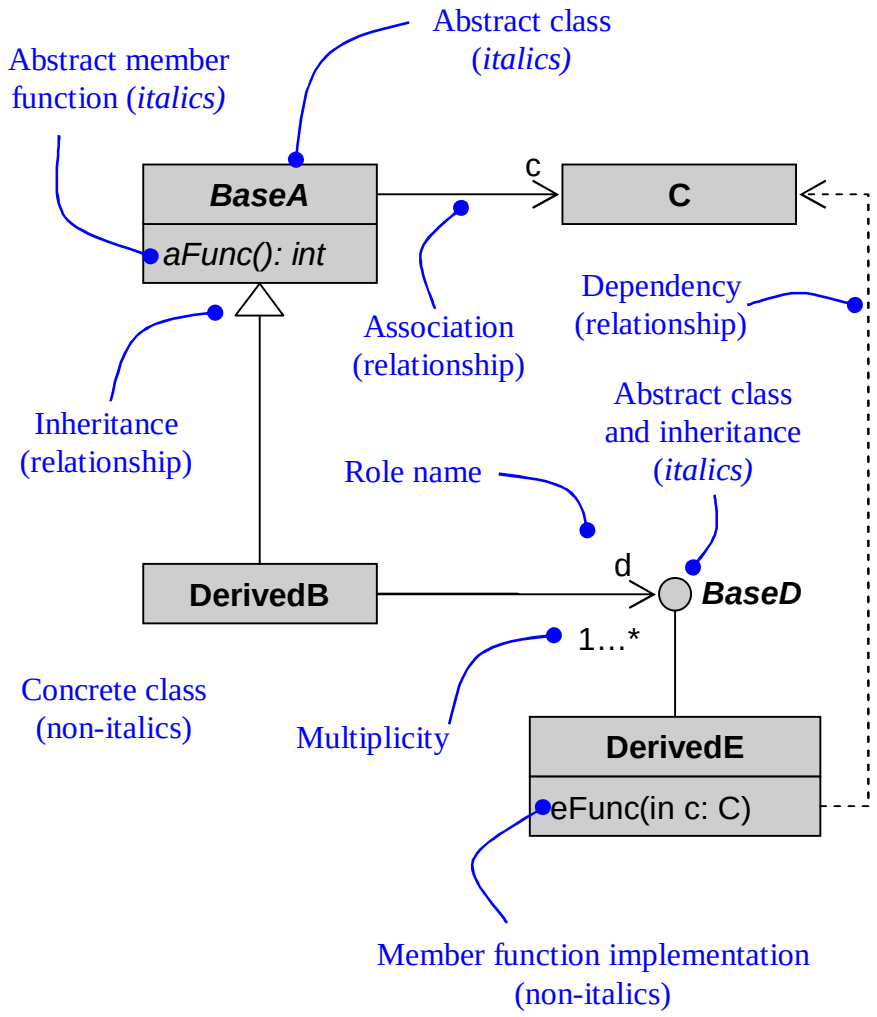
Good tutorial on object-orientation development process and short (about 200 pages) introduction to the UML.

Unified Modeling Language

- Graphical language for designing, documenting and communicating designs object-oriented software
- Standardized by the Object Management Group (OMG) and backed by a large group of software companies
- Allows the specification and description of object-oriented software at various levels of detail
- Supported by many different CASE tools for
  - Designing OO software
  - Documenting OO software
  - Reverse engineering OO software
  - Creating skeleton code for OO software
  - Refactoring OO software

Overview of Basic UML Notation for Object Orientation (OO)

Simple UML Class Diagram



Compatible C++ declarations

```
class BaseA {
public:
  virtual ~BaseA() {}
  virtual int aFunc() const = 0;
  virtual C& c() = 0;
  …
};

class DerivedB : public BaseA {
public:
  …
private:
  std::vector<BaseD*> d_;
};

class C { … };

class BaseD { … };

class DerivedE : public BaseD {
public:
  void eFunc( const C& c );
  …
};
```

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