

Inheritance

- Classes that use inheritance are said to have an *is-a* relationship
- Examples:
 - Person *has-a* Date
 - Student *is-a* Person
 - Faculty *is-a* Person

Protected Data Members and Functions

- Until now, we've been working with two access specifications:
 - private
 - public
- Another access specification is:
 - protected

Protected

- Recall from the example last time, that Person class contained one private data member
 - `string name;`
- This meant that functions in the class Student (that is derived from Person) could not directly access Person's private data members
 - `Student(string aName) { name = aName; }`

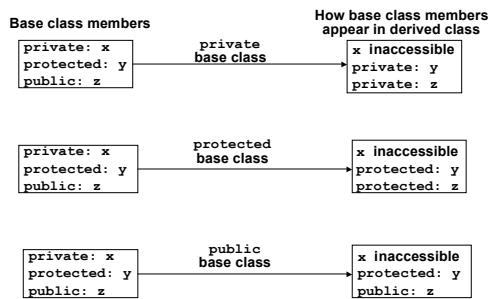
Protected

- Protected members of a class are just like private members, except that derived classes may access them directly

Base Access Specifications

- Recall that Student was publicly derived from Person
 - `class Student : public Person`
- This is called the base access specification
- We could also use private or protected
 - `class Student : public Person`
 - `class Student : protected Person`
 - `class Student : private Person`

Base Access Specifiers



Constructors

- When creating an object of a derived class, which constructor is called first?
 - The base class first
 - Then the derived class
- When destroying an object of a derived class, which destructor is called first?
 - The derived class first
 - Then the base class
