Practice of Programming using Java
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A class can be defined inside another class
Enclosing class: outer class

class A {
    class B { }
}
classes A is the enclosing class.
class B is the inner class.
Interactions between the 2 classes

Members of enclosing class can use the inner class.

Inner class is visible only from inside the enclosing class.

The inner class can see all the members of the outer class.
They call member functions of the enclosing class. These member functions may use the inner class. An inner class's instance may be sent out for clients of outer class through polymorphism.

```
Interface X {... }
Class outer {
    Class Inner implements X {... }
    Public X f() { return new Inner() }
}
```
Types of Inner Classes

Static inner class
  Static class, inside an outer class
Inner class
  Non static, inside an outer class
Local class
  Inside a member function
Anonymous class
  Has no name
  Is defined and instantiated immediately!
Class Object: For generic programs

- Object clone()
- Boolean equals (Object another)
- Class getClass()
- Void notify()
- Void notifyAll()
- Void wait() and other 2 wait() functions
- getClass()