

Discussion Questions for “Interfaces”

1. In the interfaces lecture, the professor claims that interfaces are more powerful than classes. Do you agree, or do you disagree? What makes classes more powerful than interfaces? What makes interfaces more powerful than classes?
2. When we talked about inheritance, we were careful to show that if a single child class could inherit multiple parent classes, bad things could happen. For instance, if multiple inheritance were allowed, and two parent classes implemented the same method name, which of those methods should the child class inherit? However, it is perfectly legal for a class to implement many different interfaces. Why can a class implement multiple interfaces even though it is illegal and problematic to inherit multiple parents?
3. What features must be available to sort objects of some arbitrary class? Can we define an interface so that every class which implements that interface is sortable? When method or methods belong in that interface?
4. Are there any differences between an interface and an abstract class which has no fields and in which all the methods are abstract? What are they? Why have a special construct called “interface”?