Announcements

• Project #5 due on Thursday
• Exam #2 in two weeks (11/19)
Java Interfaces

What is a Java Interface?

Continue Example: Tours.Java, TourGuide.java, Tourist.java, etc.
Polymorphism (via Interfaces)

Observations:

• What does it mean for a class to “implement” an interface?

• Tourguide guide;
  What kind of objects can be assigned to this variable?

• What methods can be run via the guide variable?

• What happens when we call a method via the guide variable:
  guide.sayGreeting();
Wrappers

What is a wrapper class?
What does this accomplish?
Have we seen examples of wrappers?
  • FancyWord
  • MyDouble

Java’s built-in wrappers around primitives:
Byte, Short, Integer, Long, Float, Double, Character, Boolean
  • Why do these exist?
  • Note that they are all immutable
  • Let’s look at the API for one of them (Integer)
Auto-Boxing and Auto-Unboxing

• What is auto-boxing/auto-unboxing?
• Why is this useful?
FindMin Example

Let’s write a method like this (and a JUnit test):

```java
public static Integer findMin(Integer[] a)
```

Now let’s write one that works with Strings (and a JUnit test):

```java
public static String findMin(String[] a)
```

How can we use an interface to write ONE universal findMin method?