

CS 112 - Fall 2012, Lab 06

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Comparator

- Interface Comparator
 - <http://docs.oracle.com/javase/7/docs/api/java/util/Comparator.html>
- Interface Comparable
 - <http://docs.oracle.com/javase/7/docs/api/java/lang/Comparable.html>

Comparator

- Comparator
 - Two methods: `compare(T o1, T o2)` and `equals(Object obj)`
- Comparable
 - One methods: `compareTo(T o)`

Iterator

- Interface Iterator
 - <http://docs.oracle.com/javase/7/docs/api/java/util/Iterator.html>
- Interface Iterable
 - <http://docs.oracle.com/javase/7/docs/api/java/lang/Iterable.html>

Iterator

- Iterator
 - Three methods: `hasNext()`, `next()` and `remove()`
<optional>
- Iterable
 - One methods: `iterator()`: return an iterator

Iterator

- Three ways to use iterators
 - **while** loop
 - `while(iter.hasNext)`
 - **for** loop
 - `for(Iterator iter = list.iterator(); iter.hasNext;)`
 - **for each**
 - `for(Item x : list)`

Practice

- **An ordered linked list with iterator**
 - Extends superclass exsisting ordered linked list
 - Implements interface iterable
 - Write your own iterator