Handout B, p. 1: Useful Reference Items

Here are a few reminders of things we discussed in class, but that you might reasonably need a "reference" for if you were using them in the real world.

The interface `java.util.Comparator<T>` includes the following method signature:

int	compare(T o1, T o2)	Compares this object with the specified object for order. Returns a negative integer, zero, or a positive integer as this object is less than, equal to, or greater than the specified object.

The interface `java.lang.Comparable<T>` includes the following method signature:

int	compareTo(T o)	Compares its two arguments for order. Returns a negative integer, zero, or a positive integer as the first argument is less than, equal to, or greater than the second.

The class `java.util.ArrayList<E>` includes this method:

void	sort(Comparator<? super E> c)	Sorts this list according to the order induced by the specified `Comparator`.

The class `java.util.Collections` contains the following static method:

static <T extends Comparable<? super T>> void	sort(List<T> list)	Sorts the specified list into ascending order, according to the natural ordering of its elements.

And finally, `java.lang.String` implements `Comparable<String>` in the way that you would expect.

```
$ java StudentMain
Student(6234567,"Bob",3.25,CMPSC)
Student(7152353,"Charlie",3.96,CMPSC)
Student(2352353,"Alice",3.97,CMPEN)
Student(2888888,"Danielle",4.00,CMPSC)
Student(1152353,"Ed",2.90,CMPEN)
$ java StudentMain name
Student(2352353,"Alice",3.97,CMPEN)
Student(6234567,"Bob",3.25,CMPSC)
Student(7152353,"Charlie",3.96,CMPSC)
Student(2888888,"Danielle",4.00,CMPSC)
Student(1152353,"Ed",2.90,CMPEN)
$ java StudentMain perm
Student(1152353,"Ed",2.90,CMPEN)
Student(2352353,"Alice",3.97,CMPEN)
Student(2888888,"Danielle",4.00,CMPSC)
Student(6234567,"Bob",3.25,CMPSC)
Student(7152353,"Charlie",3.96,CMPSC)
$
```

End of Handout