EECS 293
Software Craftsmanship
2015 Fall Semester

Programming Assignment 1

Due at the beginning of your discussion session on

September 1-4, 2015

Reading

Read Chapters 1, 2, 3, and 4 in Code Complete.

Programming

In this assignment, you will write a method that finds the longest common prefix in two lists:

```
static <T>
List<T> longestPrefix(List<T> a,
                      List<T> b,
                      Comparator<? super T> cmp)
```

A *prefix* of a list is a list containing the first entry (or entries) of the list. A common prefix is a prefix that is common to both lists. The method is supposed to return the common prefix of maximum length. Here are some examples:

a	b	Longest common prefix
1, 2, 4	1, 2, 3	1, 2
1, 2	2, 1	Empty list
1, 2	1, 2, 3, 4	1, 2
1, 2, 3, 4	1, 2, 4	1, 2

To make the assignment more exciting:

- If your CWRU id is an even number, then your code should use `Iterators`.
- If your CWRU id is an odd number, then your code can use recursion but cannot use any type of loop (`while, do, for`, for-each, `Iterator, ListIterator, Streams`, etc.)

Write a program the reads two strings and prints out their longest common prefix. Create your own input data and run your program on it.

Submission

Bring a copy to your discussion session to display on a projector. Additionally, submit an electronic copy of your program to blackboard.

Notes

If you are in a non-Java section, it is your responsibility to adapt these specifications to your programming language.

Grading Guidelines

The first assignment is required but not graded.