

CSC207 Lab 5 — Java Generics

To earn lab marks, you must arrive on time, actively participate for the entire session, and make good progress.

1 Overview

This week, you are going to implement a generic interface and two generic classes.

2 Log in and get things set up

s1 drives and **s2** navigates.

1. Update your subversion repository to get the newly created **lab5** directory. This directory contains directories **Week5Lab**, **src**, and **w5lab**, and file **Lab5.java** and **WaitList.java**.
2. Start Eclipse and select **lab5** as a workspace to work in today.
3. Create a new Java Project called **Week5Lab**. You should now be able to view the starter files in Eclipse, in package **w5lab**.

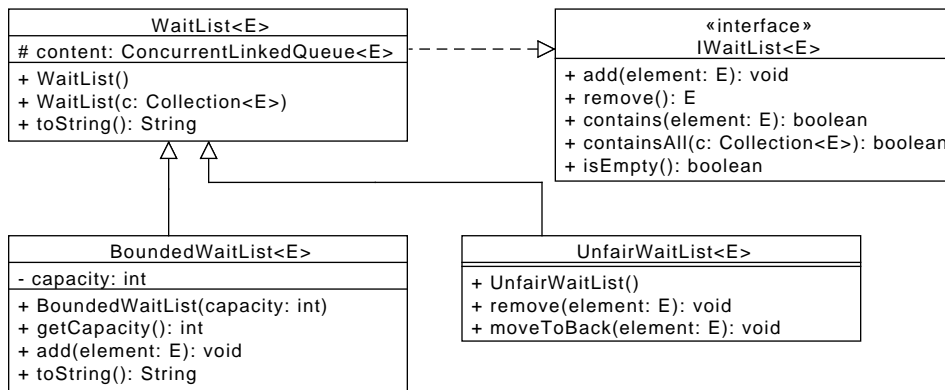
3 The Various Waiting Lists

As starter code, we have provided the generic class **WaitList** that we have seen in lecture. Look it over carefully.

We now decide that we need two more kinds of wait lists:

- **BoundedWaitList**: This wait list has a limited capacity, specified at the time of creation. It does not accept more than capacity elements.
- **UnfairWaitList**: In this wait list, it is possible to remove an element that is not the first in line. (In our implementation, we will remove the first occurrence of the given element.) It is also possible for an element to be sent back to the end of the line.

After giving the task some thought, we decide that we want an interface **IWaitList**, and three classes for the three wait lists. We also decide that **WaitList** should be a super class of the other two wait lists. Please, consult the UML class diagram as you study and implement the required classes.



Switch roles after implementing each interface/class!

Once you are done implementing the wait lists, you can study and run some code that uses them in `Lab5`'s `main` method.

Show your work (including your Javadocs!) to your TA.

Using a text editor (e.g., `nedit`, `kate`, or `pico`), in your `lab4` directory create a file named `partner.txt`. In that file there should be exactly one line and that line should contain only the CDF username of `s2` (assuming you are using `s1`'s repository during this lab). Add and commit that file to the repository.

Add all new Java files to the repository. Commit all changes. **Do not include the bin folder, the doc folder, or Eclipse's "hidden" files!**