YU CSE2011 Summer 2019

Assignment 1

Weight 5%, Due on Tuesday June 18th, 2019 at 1:00PM

Collect/finish the Java code (interface and the complete working classes) from lecture slides for the following ADTs:

1) ArrayList ADT that uses an array internally (call it AArrayList)
2) ArrayList ADT that uses a linked list internally (call it LArrayList)
3) Queue ADT that uses an array internally (call it AQueue)
4) Queue ADT that uses a linked list internally (call it LQueue)

Make sure you keep **the same method names as in the slides** (automatic testing will be performed)!

Make sure your **classes implement the corresponding interfaces**. Put your classes in a **package** called eecs2011.

For each method you develop, add **comments** and **estimate the big-O** running time of its algorithm. In the comments additionally **explain the advantages** of the array-based implementation over the linked-list-based implementation and vice versa. Keep your **code nicely formatted** and follow **good programming practices**. Try to make the code **robust** and try to **use generics**.

Code that works and is nicely formatted will give you 70% mark and the rest of the mark will come for the extras mentioned above.

No late submissions will be accepted.

Zip your files into a file a1.zip and submit on Moodle.