**Lessons Learned Reflection**

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CSC372-1: COMPUTER PROGRAMMING II

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04-07-2024

**Lessons Learned Reflection**

In this course I learned how to make a linked list in Java using recursion, and how to use a Comparitor class in Java. I have previously attended a CS-2 course in the Colorado Community College system, which was in C++. It went over some of the same data structures, except we used pointers rather than instances in an Object to reference the next and last nodes int that structure. The comparator class in java was also a novel concept to me, this creates a cool way to abstract the comparisons used between two Objects. Outside of that I did not gain much from this course. However, I always enjoy a good coding exercise therefor still enjoyed my time in this course.

**Level 1 Header**

Java provides a library for creating linked lists a member of the Java Collections Framework.. (LinkedList , 2024) However, in this class we were tasked with creating our own linked list implementation using recursion. Linked lists are data structures that are a list of elements are not stored at the contiguous location(GfG., 2023) In my implementation I chose to store instances of my object within itself, and iterate through the nodes recursively. While this could have very well been done using a loop, we used recursion.

Javas Comparitor is a functional interface that can be passe into a sort method to allow control over the order of a collection. (Comparator, 2024) We defined this interface in another class to define our own Comparitor for our own sort method.

**Conclusion**

In this course I learned how to make a linked list in Java using recursion, and how to use a Comparitor class in Java. I have previously attended a CS-2 course in the Colorado Community College system, which was in C++. It went over some of the same data structures, except we used pointers rather than instances in an Object to reference the next and last nodes int that structure. The comparator class in java was also a novel concept to me, this creates a cool way to abstract the comparisons used between two Objects. Outside of that I did not gain much from this course. However, I always enjoy a good coding exercise therefor still enjoyed my time in this course.

**References**

Comparator (java platform SE 8 ). (2024, January 8). <https://docs.oracle.com/javase/8/docs/api/java/util/Comparator.html>

GfG. (2023, September 21). Implementing a linked list in Java using class. GeeksforGeeks. <https://www.geeksforgeeks.org/implementing-a-linked-list-in-java-using-class/>

LinkedList (Java Platform SE 8 ). (2024, January 8). <https://docs.oracle.com/javase/8/docs/api/java/util/LinkedList.html>