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CSCI 313

Question 10

Question: Create a linked list filled with numbers 1 to k. Create a function that sorts the list so that first all odd numbers are listed and then all even numbers.

For this question, we have to make a link link for the intergers, and then order the numbers odd first and then even second. First making a linke list class which is public. The purpose of a public class is to be the base class. Proceeding to declare an interger named data and a Node pointer towards next. Since we want to make to make a new node for the integers, we made a function for with the node pointer and declaring with int num. We first need to know that a linked list is a linear data structure so implementing this into C++. Then writing a while loop that needs to traverse step by step, we use two pointers in this program that are known as the evn and odd pointer, we will return nullptr in this function. By changing the value of each node in the function, and we set the initialize the size of the list. Having the original link list printed first, which is numbers 1-7, it will show it in order from least to greatest, and then when compiled it will become . In linked list we are supposed to use the syntax of and dash and angle bracket because it signifies the linked list nodes being moved.