Programming Exercises – Basic Linked Lists

1. Create your own data structure using a circularly, singularly linked list.

   This will be a "List" data structure, meaning it uses a "cursor" to point to a node, and the member functions move the cursor around and manipulate the list at that point. You should make sure that all of your member functions account for each possible state of the list (e.g. you probably want to do something different if the list is empty vs if it has nodes) in order to work correctly and fail elegantly (not crash).

   Basic features:

   next() – move cursor forward one node

   prev() – move cursor back one node

   get() – get the value of the node at the cursor

   set(value) – set the value of the node at the cursor

   insert(value) – insert a new node at the cursor with a value

   remove() – remove a node at the cursor

   operator<< – output the list

   operator= – assign one list to another