Exercise – Linked Lists

You are tasked with creating a Linked List class, complete with Iterators.

The class must implement a Double Linked List and support the following methods:

* pushFront( value ) – add a new value to the front of the list
* pushBack( value ) – add a new value to the end of the list
* insert( Iterator, value ) – add a new value one-past the specified iterator location
* begin() – return an iterator to the first element
* end() – return an iterator to a null element
* first() – return the first element by value, assert if no elements
* last() – return the last element by value, assert if no elements
* count() – return how many elements exist in the list
* erase( iterator ) – remove an element by its iterator
* remove( value ) – remove all elements with matching value
* popBack() – remove the last element
* popFront() – remove the first element
* empty() – return a Boolean, true if the list is empty, false otherwise
* clear() – remove all elements from the list