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\* CIS 22C

\* ListTest.cpp

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//============================================================================

#include <iostream>

#include "List.h"

#include <assert.h>

#include <cstddef>

using namespace std;

int main()

{

//\*\*\*\*\*\*\*\*\*My Test of Main is Found Below:\*\*\*\*\*\*\*\*\*\*\*\*

cout << "\*\*\*\*\*Student Test Code Begins Here: \*\*\*\*\*" << endl;

List<double> ListDoubles;

List<int> ListInts;

List<char> ListChars;

List<string> ListStrings;

ListDoubles.add\_start(7.4);

ListDoubles.add\_start(4.4);

ListDoubles.add\_start(1.4);

ListDoubles.add\_end(11.4);

ListDoubles.add\_end(15.4);

cout << "Should print 1.4, 4.4, 7.4, 11.4, 15.4:\n";

ListDoubles.print();

List<double> ListDoubles2(ListDoubles); //copy constructor

cout << "Should print 1.4, 4.4, 7.4, 11.4, 15.4:\n";

ListDoubles2.print();

if (ListDoubles == ListDoubles2)

{

cout << "Both lists of doubles are the same!" << endl;

}

ListInts.add\_end(7);

ListInts.add\_end(2);

ListInts.add\_end(9);

ListInts.begin\_cursor();

ListInts.insert\_cursor(15);

ListInts.move\_cursor();

ListInts.insert\_cursor(12);

ListInts.add\_end(4);

ListInts.add\_end(13);

ListInts.remove\_end();

cout << "Should print 7 15 12 2 9 4:\n";

ListInts.print();

cout << "The Following should print 0:" << endl;

cout << ListChars.get\_length() << endl;

cout << "This will fail the assertion, iterator is off the end of the list. Comment out when finished.\n";

//ListChar.move\_cursor();

//Indeed, it failed assertion.

ListChars.add\_end('A');

ListChars.add\_end('B');

ListChars.begin\_cursor();

ListChars.move\_cursor();

cout << "This should print B:" << endl;

cout << ListChars.get\_cursor() << endl;

ListChars.move\_cursor();

cout << "This will fail the assertion, iterator is off the end of the list. Comment out when finished.\n";

//cout << ListChars.get\_cursor() << endl;

//Indeed it failed.

ListStrings.add\_end("Hello");

ListStrings.add\_end("Professor!");

cout << "This should print: Hello Professor!\n";

ListStrings.print();

ListStrings.remove\_end();

ListStrings.remove\_end();

cout << "These next 2 should fail the assertion, iterator is off the end of the list. Comment out when finished.\n";

//ListStrings.remove\_end();

//ListStrings.remove\_start();

//Yep, they failed.

cout << endl;

}

/\* OUTPUT:

\*\*\*\*\*Student Test Code Begins Here: \*\*\*\*\*

Should print 1.4, 4.4, 7.4, 11.4, 15.4:

1.4 4.4 7.4 11.4 15.4

Should print 1.4, 4.4, 7.4, 11.4, 15.4:

1.4 4.4 7.4 11.4 15.4

Both lists of doubles are the same!

Should print 7 15 12 2 9 4:

7 15 12 2 9 4

The Following should print 0:

0

This will fail the assertion, iterator is off the end of the list. Comment out when finished.

This should print B:

B

This will fail the assertion, iterator is off the end of the list. Comment out when finished.

This should print: Hello Professor!

Hello Professor!

These next 2 should fail the assertion, iterator is off the end of the list. Comment out when finished.

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