Homework 4
CS301

Abstract

Finish the provided specification for the HugeInt class. Additionally create a driver to demonstrate the features of the HugeInt class. The driver will create several HugeInt objects, update the values, perform addition, perform comparisons, and display values.

Finish the HugeInt class implementation

Use the provided HugeInt.h. Complete the implementation of the HugeInt class in HugeInt.cpp. You may not change or modify the HugeInt header.

HugeInt Class

- The HugeInt class represents an integer of *very many* digits.
- Each digit is stored in a node of a doubly linked list of nodes. There is a pointer to each end of the list. The list can be traversed in either direction. Each node has a pointer in each direction.
- Each node has a single integer digit and two pointers. One pointer, next_greater, points to the next, more significant digit. The other pointer, next_lesser, points to the next, less significant digit.
- A single pointer of type Node points to the least significant digit. This pointer is lsd.
- A single pointer of type Node points to the most significant digit. This pointer is msd.
- The digits are stored in order from the least significant digit to the most significant digit.
- The HugeInt objects may be added together. This must be done with operator overloading. Specifically, the operator+ must be overloaded.
- The Hugeint objects may be compared for equal or less than. This must be done with operator overloading. Specifically, the operator>,operator<,operator== operators must be overloaded.

HugeInt Driver

The HugeInt driver should create several HugeInt objects and demonstrate all features.

See the provided test driver. As a test, the provided driver *must* work for *your* HugeInt class.

You may test with the provided driver, but you must write your own.

Class Source Code

The classes must be defined in a header file with no implementation. Additionally, create an implementation file with all of the implementation code. See the provided Die class example for an example of this format.

Deliverables

Provide the source files for your project.
Provide screenshots of your driver output. (10% of score)
Submit only your own original work before the posted due date on Blackboard.
Late or unoriginal work will not be accepted.