

Homework 2

In this homework, you are going to implement a program that creates an unsorted list by using a linked list.

The “data.txt” file has three lines of data

100, 110, 120, 130, 140, 150, 160

100, 130, 160

1@0, 2@3, 3@END

You need to

1. create an empty unsorted list
2. add the numbers from the first line to list using append() function.
Then print all the current keys to command line in one line using printAll().
3. delete the numbers given by the second line in the list by using delete() function.
Then print all the current keys to command line in one line using printAll().
4. Add() the numbers in the third line to the corresponding location in the list. For example, 1@0 means adding number 1 at position 0 of the list.
Then print all the current keys to command line in one line using printAll().

You must implement the following functions by yourself and use them

1. append(parameter one is the object to be added): append the object at the end of the list.
2. add(parameter one is the object to be added, parameter two is the position starting from 0)
3. delete(parameter is the key)
4. get(parameter is index value which starts from 0) returns the item object reference
5. printAll(parameter is the beginning of the list), print all keys in order in the list. Must use get() function to access data

Requirements:

1. [will be 0 if it does not compile or crash] The homework must be done in C++. Although you can use any IDE to do the homework, your code must work under Code::Blocks since the grader will use it to grade your homework. You are not allowed to use Standard Template Library to create the linked list.

2. [5%] The Following identification information must be included at the beginning of your cpp file.

`//Name: XXXXXXXX`

`//Email: XXXX@csueastbay.edu`

3. [16%*5] correct implementation of the four functions
4. [5%] Correct Output Format
5. [10%] Correct I/O of the data file