

Project 2

This assignment is about implementing Hash Tables. For this assignment you must study the given classes (Entry() and HashTable()) and main function. You cannot change the main function. This is how I will test your code.

Assignment Requirements

For this assignment you must:

1. Complete all of the prototypes in the HashTable class. You can add additional functions if you would like but you can not modify the given ones in any way.
2. On a separate sheet of paper, describe in text how you would write a hashcode function for a key of type double. Explain how you believe this will keep hash operations to constant time. Additionally, justify your function for resize(). What N did you choose to grow or shrink the table and why? Again, explain using an argument for complexity.
3. Finally, describe how you would compare two hash tables to see if they are equal. Things you may want to talk about is, what does equal mean? Can two hash tables be equal when one runs in $O(n)$ and the other in $O(1)$ time?
4. The report will be due as a hardcopy at the beginning of class on 03-28-2017.

Submission Instructions

1. For this assignment you will submit no more than one (1) .cpp files containing all the required functions and classes. You should use the following naming convention when you submit your code to the Moodle assignment.
`<username>_<assignment>.<extension>`
e.g.: bfine_2.cpp,
2. All source files must compile and run on the cs.ramapo.edu server.
3. E-mail submissions are not accepted.

Assignment Notes

1. If the name convention is not followed, the assignment **will be penalized 50%**.
2. Be sure to document your code! Formatting of your source code will be graded.
3. I will use the timestamp in Moodle to determine submission time. I do not have access to a history of your submissions. This means that if you resubmit after the deadline it will be marked as late by Moodle. Please do not resubmit after the deadline unless you feel your grade will improve past the late penalty.
4. As always please come see me right away if you are having troubles with any parts of the assignment.

I try my best to avoid errors, however, if you see any please let me know so I can send corrections to the class.