**CST-201**

**Project 7: Hash Table**

The purpose of this assignment is to assess your ability to:

* Implement a hash table
* Utilize a hash table to efficiently locate data
* Analyze and compare algorithms for efficiency using Big-O notation

For this assignment, you will implement a hash table and use it to store words in a large text file. Your hash table should use chaining for collision resolution. You may design any hash function you wish.

Your program will read a file and insert each word into a hash table. Once the table is populated, allow the user to enter words to search for. For each word entered, your program should report the number of elements inspected and whether or not the word was located.

When you are finished, create a Loom video in which you run your program and briefly explain your code. Provide an analysis of your insert and search algorithms using Big-O notation. Be sure to provide justification for your claims. Your video should not exceed 5 minutes.

Submit the following:

* Your code as a text file
* A statement that the submitted work is your own
* A link to your Loom video