

Exercises - Hash Functions

1. Consider a hash function for a string s with n characters:

$$h(s) = s[0] * 31^{(n-1)} + s[1] * 31^{(n-2)} + \dots + s[n-1].$$

Implement a hash table data structure, with methods to insert, delete and search words. Use chaining to resolve collisions. Use a doubly linked list to store words. Test it on the given text file.