

All functions

Functions

std::string **fr_dict::find_word** (const std::string &target)

Performs binary search to find the target word in Complexity $O(N)$.

string **fr_dict::search_definition** (int desired_row_number)

Looks for the stored definition of the word in the dictionary. It has complexity $O(N)$ as it gets the entire line until it finds the number of line.

void **fr_dict::load_dictionary** ()

Loads the words into the hash_dictionary in $O(N)$ time.

void **fr_dict::print_dictionary** ()

Prints the hash dictionary in $O(N)$.

bool **fr_dict::first_run** ()

Checks if it is the first run. $O(1)$.

void **fr_dict::process_xml** (unsigned int entries)

Filters the selected amount of entries in the xml file. $O(N^2)$.

HashTable::HashTable ()

Construct a new Hash Table object, allocate item positions. $O(N)$.

int **HashTable::hash_function** (const std::string &str)

simple hash function that increases the value on each loop according to the integer value of the char. $O(N)$ where N is the str length.

void **HashTable::insert** (const std::string &str)

Linear probing to insert value. Worst case is $O(N)$ for the last value if the keys happen to be poisoned (they are generated sequentially).

std::string **HashTable::search** (const std::string &str)

Searches in $O(N)$ time where N is the length of the str to hash.

void **HashTable::print_hash_table** ()

Prints every location with a value in it. $O(N)$.

bool **Preprocess::not_first_run** ()

check if the preprocessing has been ran before. Complexity $O(1)$.

void **Preprocess::filter_xml_data** (unsigned int entries)

Filters data using the predefined regex patterns. Dumps definitions and words to separate files. Complexity $O(n^2)$.