

Github link:

→https://github.com/Badetto/FLCD_Lab2

Symbol Table

Description: Is a list of lists which represents a hash table. It is initialized with a size that represents the number of “buckets” it will have.

→**GetSize()** : Returns the size of the “hash table” (number of buckets).

→**Hash(key: string)**: Returns the “hashValue” that corresponds with the given key. More precisely the “hashValue” is equal with the sum of all characters’s ascii codes modulo the size of the “hash table”.

→**Contains(key: string)**: We will return “true” if we find the key inside the “hash table”, “false” otherwise.

→**Add(key: string): (hashValue: int, position: int)**: We will add the key in a bucket based on its “hashValue” and return the position on which it will be added (its corresponding “hashValue” and the position inside the “bucket”), if it already exists inside the bucket we won’t add the key and we will return (its corresponding “hashValue”, -1).

→**Remove(key: string): (hashValue: int, position: int)**: If the key exists inside the “hash table”, we will return the position from which we will remove the key (“hashValue”, position inside the “bucket”) and then we will remove the key from the “hash table”, otherwise we will return (hashValue, -1).

→**KeyPosition(key: string): (hashValue: int, position: int)**: If the key exists inside the “hash table”, we will return the position from which we will remove the key (“hashValue”, position inside the “bucket”), otherwise we will return (hashValue, -1).

→**ToString()**: We “convert” the hash table to “string” to be able to see all the “buckets” and all the keys.