**TAD Hash Table**

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| Hash Table  Where the element is the last element added  **Graphic representation**  … …  Universe of keys  Hash Table   |  | | --- | |  | |  | |  | |  | |  | |  | |  | |  |   This hash table is worked with open addressing, so that each key has only one and unique value |
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| **Primitive Operations**   |  |  |  | | --- | --- | --- | | **Name** | **Input** | **Output** | | HashTable | … | HashTable | | AddElement | HashTable x key x value | HashTable | | Remove | HashTable x key | HashTable | | IsFull | HashTable | Boolean | | IsEmpty | HashTable | Boolean | | Search | HashTable x key | Boolean | | GetSize | HashTable | Integer | |

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| **HashTable( ) : Constructor** |
| “Create a new empty hash table” |
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| **AddElement(K key, V value) : Modifier** |
| “Adds a new element to the hash table, this element has a key and a value” |
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| **Remove(K key) : Modifier** |
| “Removes an element from the hash table according to the key” |
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| **isFull( ) : Validation** |
| “To know if all slots of the hash table are full” |
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| **isEmpty( ) : Validation** |
| "Allows to check if the hash table has elements or not". |
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| **Search(K key) : Validation** |
| “Allows to determine if a key is in the hash table” |
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| **getSize( ) : Validation** |
| “Determines how many slots are being used” |
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