Data structures test cases design

Queue

|  |  |  |
| --- | --- | --- |
| Queue Scenery Design | | |
| Class | Scenery | Summary |
| Queue | Setup1 | The Queue was created and added number 1 to 4 in their order. |
| Queue | Setup2 | The queue was created and is empty |

|  |  |  |  |
| --- | --- | --- | --- |
| Queue Test cases Design | | | |
| Scenery | Method | Input | Output |
| Setup1 | Push | 2 | True, the queue’s size is now 5, the order is {1,2,3,4,2} |
| Setup1 | Pop |  | True, the queue’s current size is 3, the order is {2,3,4} |
| Setup1 | Size |  | The size of the queue is 4 |
| Setup2 | Push | 4 | True, the queue’s current size is 1 |

Stack

|  |  |  |
| --- | --- | --- |
| Stack Scenery Design | | |
| Class | Scenery | Summary |
| Stack | Setup1 | The Stack was created and is empty |
| Stack | Setup2 | The stack was created and added number 1 to 4 in order |

|  |  |  |  |
| --- | --- | --- | --- |
| Queue Test cases Design | | | |
| Scenery | Method | Input | Output |
| Setup2 | Push | 4 | True, the stack’s size is now 5, the order is {4,4,3,2,1} |
| Setup2 | Pop |  | True, the Stack’s current size is 3, the order is {3,2,1} |
| Setup2 | Size |  | The size of the queue is 4 |
| Setup1 | Push | 4 | True, the queue’s current size is 1 |

Hash Table

|  |  |  |
| --- | --- | --- |
| Hash Table Scenery Design | | |
| Class | Scenery | Summary |
| HashTable | Setup1 | The HashTable was created and is empty |
| HashTable | Setup2 | The HashTable was created and have a item with key = 1, value = 5 |

|  |  |  |  |
| --- | --- | --- | --- |
| Hash Test cases Design | | | |
| Scenery | Method | Input | Output |
| Setup1 | Insert | Key: 1  Value: 5 | The new value is now in the hash table |
| Setup2 | Remove | Key: 1 | The HashTable now have 0 items |
| Setup2 | contains | Key:1 | true |
| Setup2 | modify | Key:1  Value: 3 | The value associated to key: 1 now is 3 |
| Setup2 | Search | Key:1 | 5 |