hash table

| **Name** | **Class** | **Scenery** |
| --- | --- | --- |
| setup1 | HashTableTest | Hash table is empty |
| setup2 | HashTableTest | The hash table has added values. |
| setup3 | HashTableTest | The hash table has added values and some are collided |

| Test Objective: test if the hastable is capable of detecting when adding is not possible due to a repeated key | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | add | setUp2 | add(0.4, "Alejadro Magno")  add(0.4, "MonitorGod") | "Exception object with the same key that other" |

| Test Objective: test if the hastable is capable of adding an element if the list is empty | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | add | setUp1 | 11.0, "Hola" | the element is added to the hash table |

| Test Objective: test if the hash table is capable of detecting when searching is not possible due to being empty | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | search | setUp1 | search(0,3) | Exception list is void |

| Test Objective: test if the hash table is adding and removing effectively | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | remove | setUp1 | 0.3, 0.4, 2, 2.4, 4.5, 6.5, 8.5. | hash table should be empty |

| Test Objective: test if search method is working properly | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | search | setUp2 | search(8.5) | se encuentra el valor buscado con la llave 0.4, en este caso “Juan” |

| Test Objective: test if search method is working properly when there is a collision | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | add  search | setUp2 | n = 0.39, "Marco Aurelio"  a = 0.37, "Alejandro Magno";  search(0.37) | 0.39, "Alejandro Magno" should be found |

| Test Objective: test if search throws exception when the item doesn’t existe | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | search | setUp2 | search(0.26) | Exception object doesn't exist |

| Test Objective: test if remove method throws exception when the item doesn’t exist | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | remove | setUp2 | remove(0.26) | Exception object doesn’t exist |

| Test Objective: test if remove method works properly | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | remove | setUp2 | remove(0.3) | the element should not exist in the hash table |

| Test Objective: test if clone method makes identical items | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | clone() | setUp2 |  | the elements should be the same in both hash tables |

| Test Objective: Check if the elements are real clones and not pointer to the original items | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | clone() | setUp2 |  | the elements should be the same in both hash tables and changing something in one of the elements doesn’t change the clone of the other hash table |

| Test Objective: test the search method for an element that is collided | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | search | setUp3 | 14.12 | the item should be found and equal to “Aurelio” |

| Test Objective: test if remove works well when it is eliminating a collisioned element | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | remove | setUp3 | 14.12 | the element with key 14.12 should be removed |

| Test Objective: test if add method works well when it would make a collision | | | | |
| --- | --- | --- | --- | --- |
| **Class** | **Method** | **Scenery** | **Input value** | **Return** |
| HashTableTest | add | setUp3 | 0.36, “Marco” | the element with key 14.12 should be removed |