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2023

**DESIGN**

1. Design of test cases, including scenarios, for the structures and the system.

**Configuration of BoardingSystem scenarios**

|  |  |  |
| --- | --- | --- |
| **Name** | **Class** | **Scenery** |
| setupScenary1 | BoardingSystemTest |  |
| setupScenary2 | BoardingSystemTest |  |
| setupScenary3 | BoardingSystemTest |  |
| setupScenary4 | BoardingSystemTest |  |
| setupScenary5 | BoardingSystemTest |  |

**Test Cases Design**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test objective:** Test the correct operation of the BoardingSystem class. | | | | |
| **Class** | **Method** | **Scenery** | **Inputs** | **Resultado** |
| BoardingSystem | loadPassengers | setupScenary1 | filename:  passengers.txt | Each passenger's information has been correctly stored in the HashTable. |
| BoardingSystem | getPassenger | setupScenary2 | id:  9 | The information corresponding to a passenger is obtained |
| BoardingSystem | addToArrivalQueue | setupScenary3 | id:  9 | A passenger's id is added to the arrival queue at the boarding lounge. |
| BoardingSystem | setPriorityEntrance | setupScenary4 |  | A passenger's id is added to the boarding list. |
| BoardingSystem | setPriorityExit | setupScenary5 |  | A passenger's id is added to the exit list. |

**Configuration of QueueTest scenarios**

|  |  |  |
| --- | --- | --- |
| **Name** | **Class** | **Scenery** |
| setupScenary1 | QueueTest |  |
| setupScenary2 | QueueTest |  |
| setupScenary3 | QueueTest |  |
| setupScenary4 | QueueTest |  |
| setupScenary5 | QueueTest |  |
| setupScenary6 | QueueTest |  |
| setupScenary7 | QueueTest |  |
| setupScenary8 | QueueTest |  |
| setupScenary9 | QueueTest |  |

**Test Cases Design**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test objective: …** | | | | |
| **Class** | **Method** | **Scenery** | **Inputs** | **Resultado** |
| Queue | enqueue | setupScenary1 |  |  |
| Queue | enqueue | setupScenary2 |  |  |
| Queue | enqueue | setupScenary1 |  |  |
| Queue | dequeue | setupScenary4 |  |  |
| Queue | dequeue | setupScenary5 |  |  |
| Queue | dequeue | setupScenary6 |  |  |
| Queue | peek | setupScenary7 |  |  |
| Queue | peek | setupScenary8 |  |  |
| Queue | peek | setupScenary9 |  |  |

**Configuration of HashTableTest scenarios**

|  |  |  |
| --- | --- | --- |
| **Name** | **Class** | **Scenery** |
| setupScenary1 | HashTableTest |  |
| setupScenary2 | HashTableTest |  |
| setupScenary3 | HashTableTest |  |
| setupScenary4 | HashTableTest |  |
| setupScenary5 | HashTableTest |  |
| setupScenary6 | HashTableTest |  |
| setupScenary7 | HashTableTest |  |
| setupScenary8 | HashTableTest |  |
| setupScenary9 | HashTableTest |  |

**Test Cases Design**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test objective: …** | | | | |
| **Class** | **Method** | **Scenery** | **Inputs** | **Resultado** |
| HashTable | put | setupScenary1 |  |  |
| HashTable | put | setupScenary2 |  |  |
| HashTable | put | setupScenary3 |  |  |
| HashTable | get | setupScenary4 |  |  |
| HashTable | get | setupScenary5 |  |  |
| HashTable | get | setupScenary6 |  |  |
| HashTable | remove | setupScenary7 |  |  |
| HashTable | remove | setupScenary8 |  |  |
| HashTable | remove | setupScenary9 |  |  |

**Configuration of MinPriorityQueueTest scenarios**

|  |  |  |
| --- | --- | --- |
| **Name** | **Class** | **Scenery** |
| setupScenary1 | MinPriorityQueueTest |  |
| setupScenary2 | MinPriorityQueueTest |  |
| setupScenary3 | MinPriorityQueueTest |  |
| setupScenary4 | MinPriorityQueueTest |  |
| setupScenary5 | MinPriorityQueueTest |  |
| setupScenary6 | MinPriorityQueueTest |  |
| setupScenary7 | MinPriorityQueueTest |  |
| setupScenary8 | MinPriorityQueueTest |  |
| setupScenary9 | MinPriorityQueueTest |  |

**Test Cases Design**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test objective: …** | | | | |
| **Class** | **Method** | **Scenery** | **Inputs** | **Resultado** |
| MinPriorityQueue | minInsert | setupScenary1 |  |  |
| MinPriorityQueue | minInsert | setupScenary2 |  |  |
| MinPriorityQueue | minInsert | setupScenary3 |  |  |
| MinPriorityQueue | extractMin | setupScenary4 |  |  |
| MinPriorityQueue | extractMin | setupScenary5 |  |  |
| MinPriorityQueue | extractMin | setupScenary6 |  |  |
| MinPriorityQueue | getMin | setupScenary7 |  |  |
| MinPriorityQueue | getMin | setupScenary8 |  |  |
| MinPriorityQueue | getMin  extractMin | setupScenary9 |  |  |

**Configuration of MaxPriorityQueueTest scenarios**

|  |  |  |
| --- | --- | --- |
| **Name** | **Class** | **Scenery** |
| setupScenary1 | MaxPriorityQueueTest |  |
| setupScenary2 | MaxPriorityQueueTest |  |
| setupScenary3 | MaxPriorityQueueTest |  |
| setupScenary4 | MaxPriorityQueueTest |  |
| setupScenary5 | MaxPriorityQueueTest |  |
| setupScenary6 | MaxPriorityQueueTest |  |
| setupScenary7 | MaxPriorityQueueTest |  |
| setupScenary8 | MaxPriorityQueueTest |  |
| setupScenary9 | MaxPriorityQueueTest |  |

**Test Cases Design**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Test objective: …** | | | | |
| **Class** | **Method** | **Scenery** | **Inputs** | **Resultado** |
| MaxPriorityQueueTest | maxInsert | setupScenary1 |  |  |
| MaxPriorityQueueTest | maxInsert | setupScenary2 |  |  |
| MaxPriorityQueueTest | maxInsert | setupScenary3 |  |  |
| MaxPriorityQueueTest | extractMax | setupScenary4 |  |  |
| MaxPriorityQueueTest | extractMax | setupScenary5 |  |  |
| MaxPriorityQueueTest | extractMax | setupScenary6 |  |  |
| MaxPriorityQueueTest | getMax | setupScenary7 |  |  |
| MaxPriorityQueueTest | getMax | setupScenary8 |  |  |
| MaxPriorityQueueTest | getMax  extractMax | setupScenary9 |  |  |