**Configuration of Scenarios.**

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| **Name** | **Class** | **Scenario** |
| setUpStage1 | PriorityQueueTest | A new empty priority queue is created. |
| SetUpStage2 | PriorityQueueTest | A new queue is created, and a priority task is added. |
| SetUpStage3 | PriorityQueueTest | An urgent task is enqueued and dequeued from the queue. |
| SetUpStage4 | PriorityQueueTest | A new queue is created, and two priority task is added. |

**Test Case Design.**

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| **Objetivo de la Prueba:** Verify that the queue structure is working correctly. | | | | |
| **Class** | **Method** | **Scenario** | **Input values** | **Expected outcome** |
| PriorityQueue | testIsEmpty | setUpStage1 |  | true |
| PriorityQueue | testIsEmpty2 | setUpStage2 |  | false |
| PriorityQueue | testIsEmpty3 | setUpStage3 |  | true |
| PriorityQueue | testEnqueue1 | setUpStage1 | priorityQueue.enqueue(object)  priorityQueue.size() | 1 |
| PriorityQueue | testEnqueue2 | setUpStage2 | priorityQueue.enqueue(object)  priorityQueue.size() | 2 |
| PriorityQueue | testEnqueue3 | setUpStage3 | priorityQueue.enqueue(object)  priorityQueue.size() | 1 |
| PriorityQueue | testDequeue1 | setUpStage2 | priorityQueue.dequeue()  priorityQueue.size() | 0 |
| PriorityQueue | testDequeue2 | setUpStage4 | priorityQueue.dequeue()  priorityQueue.size() | 1 |
| PriorityQueue | testDequeue3 | setUpStage1 | priorityQueue.dequeue() | null |
| PriorityQueue | testPeek1 | setUpStage2 | priorityQueue.peek() | task |
| PriorityQueue | testPeek2 | setUpStage4 | priorityQueue.peek() | task |
| PriorityQueue | testPeek3 | setUpStage4 | priorityQueue.enqueue(object)  priorityQueue.peek() | task |
| PriorityQueue | testRemove1 | setUpStage2 | priorityQueue.remove(object)  priorityQueue.size() | 0 |
| PriorityQueue | testRemove2 | setUpStage4 | priorityQueue.remove(task1)  priorityQueue.peek() | task2 |
| PriorityQueue | testRemove3 | setUpStage4 | priorityQueue.remove(task2)  priorityQueue.peek() | task1 |