Test Cases

Queue Structure:

Class	QueueTest
Method under test	isEmptyStandard()
Scenario	A new instance of the Queue class with element type String has been created. Then the isEmpty() method is called and it is expected to return true.
Inputs	No input is required for this test case.
Expected output	True.

Class	QueueTest
Method under test	isEmptyLimit()
Scenario	A new instance of the Queue class with element type String has been created. Then the element "A" is added to the queue and the dequeue() method is called to remove it. Next, the isEmpty() method is called and it is expected to return true.
Inputs	No input is required for this test case.
Expected output	True.

Class	QueueTest
Method under test	isEmptyInteresting()
Scenario	A new instance of the Queue class with element type Integer has been created. Then the elements 1, 2, and 3 are added to the queue in that order, and the dequeue() method is called three times to remove them. Finally, the isEmpty() method is called and it is expected to return true.
Inputs	No input is required for this test case.
Expected output	True.

Class	QueueTest
Method under test	sizeStandard()
Scenario	A new instance of the Queue class with element type String has been created, and no elements have been added to the queue. The size() method is then called, and it is expected to return 0.
Inputs	No input is required for this test case.
Expected output	0.

Class	QueueTest
Method under test	sizeLimit()
Scenario	A new instance of the Queue class with element type String has been created, and one element "A" has been added to the queue using the enqueue() method. The size() method is then called, and it is expected to return 1.
Inputs	"A" is passed as an argument to the enqueue() method.
Expected output	1.

Class	QueueTest
Method under test	sizeInteresting()
Scenario	A new instance of the Queue class with element type Integer has been created, and three elements (1, 2, and 3) have been added to the queue using the enqueue() method. Three elements are then dequeued from the queue using the dequeue() method, and then the size() method is called. It is expected to return 0, indicating that the queue is now empty.
Inputs	The integers 1, 2, and 3 are passed as arguments to the enqueue() method.
Expected output	0.

Test Case	
Class	Queue
Method	enqueueStandard
Scenario	Test that the `**enqueue**` method correctly adds an element to an empty queue.
Inputs	A string "A" to enqueue.
Expected Output	The size of the queue should be 1 after enqueuing "A".

Test Case	
Class	Queue
Method	enqueueLimit
Scenario	Test that the `**enqueue**` and `**dequeue**` methods correctly add and remove elements from a queue.
Inputs	Strings "A" and "B" to enqueue, and two calls to `**dequeue**` to remove both elements from the queue.
Expected Output	The size of the queue should be 0 after enqueuing "A" and "B", and then dequeuing both elements.

Test case	
Class	Queue
Method	enqueueInteresting
Scenario	Enqueue elements to the queue and check its size.
Input	Integer values: 1, 2, 3
Expected Output	The size of the queue should be 3.

Test case	Description
Class	`Queue`
Method	`dequeueStandard`
Scenario	Dequeue items from a queue
Inputs	`1`, `2`, `3`, `4` (enqueued)
Expected output	`1`, `2`, `3`, `4` (dequeued)

Test case description	
Class	Queue
Method	dequeue
Scenario	Attempt to dequeue from an empty queue
Input	An empty queue
Expected Output	Null

Class	Method	Scenario	Inputs	Expected Output
Queue<String>	dequeueInteresting	Queue has 5 elements, dequeuing two elements	"A", "B", "C", "D", "E"	Size of queue is 3, head is "C", second element is "D"

Clase	Método a probar	Escenario	Entradas	Salida esperada
Queue<String>	dequeueInteresting	Se agregan elementos a la cola y se realiza el dequeuing de dos elementos	"A", "B", "C", "D", "E"	La cola tiene un tamaño de 3, el elemento en la cabeza es "C" y el siguiente elemento en la cola es "D"

Test case	Description
Test method	`` `getHeadStandard()` ``
Scenario	Add three elements to the queue and get the head of the queue
Inputs	Three string elements added to the queue: "A", "B", "C"
Expected output	The head of the queue should be "A"

Class	Method	Scenario	Input	Expected Output
Queue<String>	getHeadLimit	Test getting the head of an empty queue	N/A	Null

Test Case	
Class	Queue
Method	getHeadInteresting
Scenario	Test getHead() method on an interesting scenario where one item has been dequeued from the queue
Input	Queue: {"A", "B", "C"} after dequeuing one item
Expected Output	The head of the queue should be "B"