EXCEPTIONS

Ex. 1

dequeue() - EmptyQueueException

```java
public class Main1 {
    public static void main(String[] args) throws EmptyQueueException {
        ListQueue<String> queue = new ListQueue<>();

        System.out.println("Check if queue is empty:");
        System.out.println("Is empty: " + queue.isEmpty());
        System.out.println("Size: " + queue.size());
        System.out.println();

        queue.dequeue();
```

```
Check if queue is empty:
Is empty: true
Size: 0

Exception in thread "main" ex1.EmptyQueueException Create breakpoint
    at ex1.ListQueue.dequeue(ListQueue.java:22)
    at ex1.Main1.main(Main1.java:12)

Process finished with exit code 1
```

first() – EmptyQueueException

```java
public class Main1 {
    public static void main(String[] args) throws EmptyQueueException {
        ListQueue<String> queue = new ListQueue<>();

        System.out.println("Check if queue is empty:");
        System.out.println("Is empty: " + queue.isEmpty());
        System.out.println("Size: " + queue.size());
        System.out.println();

        queue.first();
```

```
Check if queue is empty:
Is empty: true
Size: 0

Exception in thread "main" ex1.EmptyQueueException Create breakpoint
    at ex1.ListQueue.first(ListQueue.java:39)
    at ex1.Main1.main(Main1.java:12)
```

Ex. 2

pop()- EmptyStackException

```java
public class Main2 {
    public static void main(String[] args) {
        ListStack<String> stack = new ListStack<>();

        System.out.println("Check if stack is empty:");
        System.out.println("Is empty: " + stack.isEmpty());
        System.out.println("Size: " + stack.size());
        System.out.println();

        stack.pop();
```

```
Check if stack is empty:
Is empty: true
Size: 0

Exception in thread "main" java.util.EmptyStackException Create breakpoint
    at ex2.ListStack.pop(ListStack.java:26)
    at ex2.Main2.main(Main2.java:12)
```

top() – EmptyStackException

```java
public class Main2 {
    public static void main(String[] args) {
        ListStack<String> stack = new ListStack<>();

        System.out.println("Check if stack is empty:");
        System.out.println("Is empty: " + stack.isEmpty());
        System.out.println("Size: " + stack.size());
        System.out.println();

        stack.top();
```

```
Check if stack is empty:
Is empty: true
Size: 0

Exception in thread "main" java.util.EmptyStackException Create breakpoint
    at ex2.ListStack.top(ListStack.java:43)
    at ex2.Main2.main(Main2.java:12)
```

Ex. 4

pop()- EmptyStackException

```java
public class Main4 {
    public static void main(String[] args) {
        ArrayStack<Integer> stack = new ArrayStack<>( initialSize: 6);

        stack.pop();
```

```
Exception in thread "main" java.util.EmptyStackException Create breakpoint
    at ex4.ArrayStack.pop(ArrayStack.java:32)
    at ex4.Main4.main(Main4.java:7)
```

top() – EmptyStackException

```
public class Main4 {
    public static void main(String[] args) {
        ArrayStack<Integer> stack = new ArrayStack<>( initialSize: 6);

        stack.top();
```

```
Exception in thread "main" java.util.EmptyStackException Create breakpoint
    at ex4.ArrayStack.top(ArrayStack.java:58)
    at ex4.Main4.main(Main4.java:7)
```