Autograder Results

ASAG: The FitnessGram Pacer Test is a multistage aerobic capacity test that progressively gets more difficult as it continues.

Velocity Limiting (0.0/0.0)

```
To keep you from getting too reliant on the autograder, submission to the AG
uses one "token". Tokens are assignment-specific. For this assignment, you have
a maximum of 2 tokens and they recharge after 21600 seconds. If your balance goes
negative, you will not be able to run the autograder until your next recharge.

Hi Danial Awan.
After this submission, you will have 0 tokens remaining out of a maximum of 2.

Your most recent submissions were:
 * Submission at Saturday July 02 2022, 19:08:51 PDT [current]
 * Submission at Saturday July 02 2022, 15:39:06 PDT

If this submission scores 0 points, you will be refunded a token immediately.
This assignment's tokens recharge every 21600 seconds.
Your next recharge will occur at Saturday July 02 2022, 21:39:06 PDT.
```

File Checking (0.0/0.0)

```
* Found required files for Testing.
* Found required files for ArrayDeque.
* Found required files for LinkedListDeque.
* Found required files for GuitarString.
```

Compilation (0.0/0.001)

```
Compiling tests for Testing...
success.
Note: /autograder/submission/proj1/./deque/LinkedListDeque.java uses unchecked or unsafe ope
Note: Recompile with -Xlint:unchecked for details.
Compiling tests for ArrayDeque...
success.
Note: Some input files use unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
Compiling tests for LinkedListDeque...
=========== COMPILATION ERROR =============
/autograder/course-materials/proj/proj1/grader/submitFinal/AGTestLinkedListDeque.java:211: e
                Integer studentValue = student.getRecursive(getIndex);
                                              ^
  symbol:   method getRecursive(int)
  location: variable student of type LinkedListDeque<Integer>
Note: Some input files use unchecked or unsafe operations.
Note: Recompile with -Xlint:unchecked for details.
1 error
Compiling tests for GuitarString...
success.
```

Style (0.0/0.0)

```
Running style check on 8 files...
```

API Checker (0.622/0.0)

Unable to test API for LinkedListDeque: compilation failed
Testing deque.ArrayDeque.java
The following methods are missing:
  * public boolean equals(Object)

The following methods should be removed or made private:
  * public boolean isEmpty()

Testing gh2.GuitarString.java

One or more API checks failed.
Unable to run 1 API check(s).

Assessment for LinkedListDeque (0.0/10.0)

Unable to run assessment for LinkedListDeque: compilation failed

a0) Testing basic: sufficient testing. (0.0/1.0)

Test Failed!
You have not written sufficient tests for LinkedListDeque.
    at AGTestLLDTests.LLDTest0:42 (AGTestLLDTests.java)

b0) Testing basic: sufficient testing. (0.0/1.0)

Test Failed!
You have not written sufficient tests for ArrayDeque.
    at AGTestADTests.ADTest0:42 (AGTestADTests.java)

f001) AD-basic: Test add and get. (0.0/0.435)

Test Failed!
Expected 0 when calling get(0), but got null instead. expected:<0> but was:<null>
    at AGTestArrayDeque.addGetTest:230 (AGTestArrayDeque.java)
    at AGTestArrayDeque.testBefore1:239 (AGTestArrayDeque.java)Adding 0 through N-1 with add

f002) AD-basic: Ensure resizing doesn't cause nulls. (0.0/0.435)

Test Failed!
removeFirst returned null for N = 8. Actual: null
    at AGTestArrayDeque.resizeThresholdTester:256 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test1:266 (AGTestArrayDeque.java)Add N items, then remove first then

f003) AD-basic: Random add/size tests. (0.0/0.435)

Test Failed!
    - failed on operation 9 of 50
    - student   size() returned 0
    - reference size() returned 9
    - sequence of ArrayDeque operations was:

        ArrayDeque.addFirst(0)
        ArrayDeque.addLast(1)
        ArrayDeque.addFirst(2)

```
       ArrayDeque.addLast(3)
       ArrayDeque.addFirst(4)
       ArrayDeque.addLast(5)
       ArrayDeque.addFirst(6)
       ArrayDeque.addFirst(7)
       ArrayDeque.addLast(8)
       ArrayDeque.size()
 expected:<9> but was:<0>
    at AGTestArrayDeque.randomizedTest:110 (AGTestArrayDeque.java)
    at AGTestArrayDeque.randomAddSizeTest:280 (AGTestArrayDeque.java)Making random calls to
 *    5 random calls (0.4, 0.4, 0.0, 0.0, 0.0, 0.2)
 *   50 random calls (0.4, 0.4, 0.0, 0.0, 0.0, 0.2)
     - sequence of ArrayDeque operations was:
       ArrayDeque.addFirst(0)
       ArrayDeque.addLast(1)
       ArrayDeque.addFirst(2)
       ArrayDeque.addLast(3)
       ArrayDeque.addFirst(4)
       ArrayDeque.addLast(5)
       ArrayDeque.addFirst(6)
       ArrayDeque.addFirst(7)
       ArrayDeque.addLast(8)
       ArrayDeque.size()
```

f004) AD-basic: Random addFirst/removeFirst/isEmpty tests. (0.0/0.435)

```
Test Failed!
    - failed on operation 2 of 5
    - student    removeFirst() returned null
    - reference removeFirst() returned 1
    - sequence of ArrayDeque operations was:
       ArrayDeque.addFirst(0)
       ArrayDeque.addFirst(1)
       ArrayDeque.removeFirst()      ==> null
 expected:<1> but was:<null>
    at AGTestArrayDeque.randomizedTest:81 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test2:291 (AGTestArrayDeque.java)Making random calls to addFirst(),
 *    5 random calls (0.8, 0.0, 0.1, 0.0, 0.1, 0.0)
     - sequence of ArrayDeque operations was:
       ArrayDeque.addFirst(0)
       ArrayDeque.addFirst(1)
       ArrayDeque.removeFirst()      ==> null
```

f005) AD-basic: Random addFirst/removeLast/isEmpty tests. (0.0/0.435)

```
Test Failed!
    - failed on operation 0 of 50
    - student    isEmpty() returned false
    - reference isEmpty() returned true
    - sequence of ArrayDeque operations was:
       ArrayDeque.isEmpty()
 expected:<true> but was:<false>
    at AGTestArrayDeque.randomizedTest:102 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test3:308 (AGTestArrayDeque.java)Making random calls to addFirst(),
 *    5 random calls (0.8, 0.0, 0.0, 0.1, 0.1, 0.0)
 *   50 random calls (0.8, 0.0, 0.0, 0.1, 0.1, 0.0)
     - sequence of ArrayDeque operations was:
       ArrayDeque.isEmpty()
```

f006) AD-basic: Random addLast/removeLast/isEmpty tests. (0.0/0.435)

```
Test Failed!
    - failed on operation 8 of 50
    - student   removeLast() returned null
    - reference removeLast() returned 7
    - sequence of ArrayDeque operations was:
        ArrayDeque.addLast(0)
        ArrayDeque.addLast(1)
        ArrayDeque.isEmpty()
        ArrayDeque.addLast(3)
        ArrayDeque.addLast(4)
        ArrayDeque.addLast(5)
        ArrayDeque.addLast(6)
        ArrayDeque.addLast(7)
        ArrayDeque.removeLast()      ==> null
  expected:<7> but was:<null>
    at AGTestArrayDeque.randomizedTest:94 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test4:324 (AGTestArrayDeque.java)Making random calls to addLast(), r
  *    5 random calls (0.0, 0.8, 0.0, 0.1, 0.1, 0.0)
  *   50 random calls (0.0, 0.8, 0.0, 0.1, 0.1, 0.0)
    - sequence of ArrayDeque operations was:
        ArrayDeque.addLast(0)
        ArrayDeque.addLast(1)
        ArrayDeque.isEmpty()
        ArrayDeque.addLast(3)
        ArrayDeque.addLast(4)
        ArrayDeque.addLast(5)
        ArrayDeque.addLast(6)
        ArrayDeque.addLast(7)
        ArrayDeque.removeLast()      ==> null
```

f007) AD-basic: Random addLast/removeFirst/isEmpty tests. (0.0/0.435)

```
Test Failed!
    - failed on operation 0 of 5
    - student   isEmpty() returned false
    - reference isEmpty() returned true
    - sequence of ArrayDeque operations was:
        ArrayDeque.isEmpty()
  expected:<true> but was:<false>
    at AGTestArrayDeque.randomizedTest:102 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test5:339 (AGTestArrayDeque.java)Making random calls to addLast(), r
  *    5 random calls (0.0, 0.8, 0.1, 0.0, 0.1, 0.0)
    - sequence of ArrayDeque operations was:
        ArrayDeque.isEmpty()
```

f008) AD-basic: Random add/remove/isEmpty/size tests. (0.0/0.435)

```
Test Failed!
    - failed on operation 1 of 50
    - student   removeLast() returned null
    - reference removeLast() returned 0
    - sequence of ArrayDeque operations was:
        ArrayDeque.addFirst(0)
        ArrayDeque.removeLast()      ==> null
  expected:<0> but was:<null>
    at AGTestArrayDeque.randomizedTest:94 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test6:358 (AGTestArrayDeque.java)Making random calls to addFirst(),
        removeLast(), isEmpty(), and size().
  *    5 random calls (0.3, 0.3, 0.1, 0.1, 0.1, 0.1)

  *   50 random calls (0.3, 0.3, 0.1, 0.1, 0.1, 0.1)
    - sequence of ArrayDeque operations was:
        ArrayDeque.addFirst(0)
```

```
ArrayDeque.removeLast()      ==> null
```

f009) AD-basic: Removing from empty ArrayDeque. (0.435/0.435)

```
*  removeFirst()
*  removeLast()
```

f010) AD-basic: Fill up, empty, fill up again. (0.0/0.435)

```
Test Failed!
  Failed on 0th removeFirst() operation in ArrayDeque expected:<9> but was:<null>
    at AGTestArrayDeque.fillUpEmptyFillUpAgain:422 (AGTestArrayDeque.java)
    at AGTestArrayDeque.test8:438 (AGTestArrayDeque.java)Inserting a bunch of stuff to the f
  Failed on 0th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 1
  Failed on 1th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 2
  Failed on 2th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 3
  Failed on 3th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 4
  Failed on 4th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 5
  Failed on 5th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 6
  Failed on 6th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 7
  Failed on 7th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 8
  Failed on 8th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 9
  Failed on 9th addFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 10
  Failed on 0th removeFirst() operation in ArrayDeque 1
  size() returns wrong result
    - student   = 0
    - reference = 9
```

f011) AD-basic: Creating multiple ADs. (0.0/0.435)

```
Test Failed!
  Failed on 0th removeFirst() operation in ArrayDeque 1 expected:<9> but was:<null>
```

```
     at AGTestArrayDeque.twoArrayDequesTest:468 (AGTestArrayDeque.java)
     at AGTestArrayDeque.test9:481 (AGTestArrayDeque.java)Creating multiple ArrayDeque object
   Failed on 0th addFirst() operation in ArrayDeque 1
   size() returns wrong result
      - student   = 0
      - reference = 1
   Failed on 0th addFirst() operation in ArrayDeque 2
   size() returns wrong result
      - student   = 0
      - reference = 1
   Failed on 1th addFirst() operation in ArrayDeque 1
   size() returns wrong result
      - student   = 0
      - reference = 2
   Failed on 1th addFirst() operation in ArrayDeque 2
   size() returns wrong result
      - student   = 0
      - reference = 2
   Failed on 2th addFirst() operation in ArrayDeque 1
   size() returns wrong result
      - student   = 0
      - reference = 3
   Failed on 2th addFirst() operation in ArrayDeque 2
   size() returns wrong result
      - student   = 0
      - reference = 3
   Failed on 3th addFirst() operation in ArrayDeque 1
   size() returns wrong result
      - student   = 0
      - reference = 4
   Failed on 3th addFirst() operation in ArrayDeque 2
   size() returns wrong result
      - student   = 0
      - reference = 4
   Failed on 4th addFirst() operation in ArrayDeque 1
   size() returns wrong result
      - student   = 0
      - reference = 5
   Failed on 4th addFirst() operation in ArrayDeque 2
   size() returns wrong result
      - student   = 0
      - reference = 5
   Failed on 5th addFirst() operation in ArrayDeque 1
   size() returns wrong result
      - student   = 0
      - reference = 6
   Failed on 5th addFirst() operation in ArrayDeque 2
   size() returns wrong result

... truncated due to excessive output!
Your code should not have print statements!
```

f012) AD-basic: Different types. (0.0/0.435)

```
Test Failed!
    java.lang.NullPointerException: Cannot invoke "java.lang.Double.doubleValue()" because t
    at AGTestArrayDeque.test10:498 (AGTestArrayDeque.java)Creating ArrayDeques with differer
```

f013) AD-basic: get. (0.0/0.435)

```
Test Failed!
    - failed on operation 1 of 5
    - student   get() returned null
    - reference get() returned 0
    - sequence of ArrayDeque operations was:
        ArrayDeque.addLast(0)
```

```
    ArrayDeque.get(0)      ==> null
  expected:<0> but was:<null>
      at AGTestArrayDeque.randomizedTestIncludingGet:208 (AGTestArrayDeque.java)
      at AGTestArrayDeque.test11:507 (AGTestArrayDeque.java)Making random calls to add/remove/
  *    5 random calls (0.2, 0.2, 0.2, 0.2, 0.0, 0.0, 0.2)
     - sequence of ArrayDeque operations was:
         ArrayDeque.addLast(0)
         ArrayDeque.get(0)      ==> null
```

f014) AD-basic: negative size. (0.435/0.435)

```
  Making sure removing from empty deque doesn't give negative size.
```

f015) AD-basic: equals trivial (0.435/0.435)

f016) AD-basic: equals null (0.435/0.435)

f017) AD-basic: equals ArrayDeque/LinkedListDeque (0.0/0.435)

```
Test Failed!
ArrayDeques and LinkedListDeques with the same elements should be equal
    at AGTestArrayDeque.test15:595 (AGTestArrayDeque.java)
```

f018) AD-basic: not equals (0.435/0.435)

f019) AD-basic: deep equals (0.0/0.435)

```
Test Failed!
ArrayDeques have the same objects within. Are you checking for equality correctly?
    at AGTestArrayDeque.test17:647 (AGTestArrayDeque.java)
```

g001) AD Performance for add/remove (0.0/0.435)

```
Test Failed!
    java.lang.NullPointerException: Cannot invoke "java.lang.Integer.intValue()" because the
    at AGTimeArrayDeque.run:39 (AGTimeArrayDeque.java)
    at AGTimeArrayDeque.test1:94 (AGTimeArrayDeque.java)Test a-g:  N random calls to addFirs
            and removeLast().

              N  seconds
----------------------------
```

g002) AD Performance for add/remove on pre-filled deque. (0.0/0.0)

```
Test Failed!
=> FAILED        1025 Infinity
    [ Most likely one of your operations is not constant time. ]

    at AGTimeArrayDeque.test2:132 (AGTimeArrayDeque.java)This test is ungraded as it require
Test a-g:  Create deque of N objects, then interleave N calls each to
            removeFirst()/removeLast() and addFirst()/addLast().
```

```
                 N  seconds
      -----------------------------------
      Failed on 1th operation of 1025: returned null on call to removeFirst() or removeLast()
      Failed on 1th operation of 1025: returned null on call to removeFirst() or removeLast()
```

◀   ▶

h001) AD-memory: Ensure that memory usage is reasonable. (0.652/0.652)

```
Test a-e: Total memory usage after inserting N items,
          where N is a power of 2.

                   N          bytes
     ---------------------------------------------------------
     => passed          8             0
     => passed         64             0
     => passed        256             0
     => passed       1024             0
     => passed       4096             0

Memory estimate (bytes): 0.00   (R^2 = 1.000)
```

h002) AD-memory: Ensure that you resize down after removals. (0.652/0.652)

```
Test a-e: Total memory usage after inserting N items and then
          deleting all but one item, where N is a power of 2.
            (should not grow with N or be too large of a constant)

                   N          bytes
     ---------------------------------------------------------
     => passed          8             0
     => passed         64             0
     => passed        256             0
     => passed       1024             0
     => passed       4096             0
```

j001) GuitarString: Check sample and pluck. (0.0/0.667)

```
Test Failed!
After plucking, your samples should not be 0.. Actual: 0.0
    at AGTestGuitarString.testSample:18 (AGTestGuitarString.java)
```

j002) GuitarString: Check tic (basic). (0.0/0.667)

```
Test Failed!
After plucking, your samples should not be 0.. Actual: 0.0
    at AGTestGuitarString.testTic:36 (AGTestGuitarString.java)
```

j003) GuitarString: Check tic calculations. (0.667/0.667)

STUDENT

Danial Awan

+ Add Group Member

AUTOGRADER SCORE
3.523 / 24.0

FAILED TESTS

Compilation (0.0/0.001)

API Checker (-0.622/0.0)

Assessment for LinkedListDeque (0.0/10.0)

a0) Testing basic: sufficient testing. (0.0/1.0)

b0) Testing basic: sufficient testing. (0.0/1.0)

f001) AD-basic: Test add and get. (0.0/0.435)

f002) AD-basic: Ensure resizing doesn't cause nulls. (0.0/0.435)

f003) AD-basic: Random add/size tests. (0.0/0.435)

f004) AD-basic: Random addFirst/removeFirst/isEmpty tests. (0.0/0.435)

f005) AD-basic: Random addFirst/removeLast/isEmpty tests. (0.0/0.435)

f006) AD-basic: Random addLast/removeLast/isEmpty tests. (0.0/0.435)

f007) AD-basic: Random addLast/removeFirst/isEmpty tests. (0.0/0.435)

f008) AD-basic: Random add/remove/isEmpty/size tests. (0.0/0.435)

f010) AD-basic: Fill up, empty, fill up again. (0.0/0.435)

f011) AD-basic: Creating multiple ADs. (0.0/0.435)

f012) AD-basic: Different types. (0.0/0.435)

f013) AD-basic: get. (0.0/0.435)

f017) AD-basic: equals ArrayDeque/LinkedListDeque (0.0/0.435)

f019) AD-basic: deep equals (0.0/0.435)

g001) AD Performance for add/remove (0.0/0.435)

j001) GuitarString: Check sample and pluck. (0.0/0.667)

j002) GuitarString: Check tic (basic). (0.0/0.667)

PASSED TESTS

Velocity Limiting (0.0/0.0)

File Checking (0.0/0.0)

Style (0.0/0.0)

f009) AD-basic: Removing from empty ArrayDeque. (0.435/0.435)

f014) AD-basic: negative size. (0.435/0.435)

f015) AD-basic: equals trivial (0.435/0.435)

f016) AD-basic: equals null (0.435/0.435)

f018) AD-basic: not equals (0.435/0.435)

g002) AD Performance for add/remove on pre-filled deque. (0.0/0.0)

h001) AD-memory: Ensure that memory usage is reasonable. (0.652/0.652)

h002) AD-memory: Ensure that you resize down after removals. (0.652/0.652)

j003) GuitarString: Check tic calculations. (0.667/0.667)