

See the Assessment Guide for information on how to interpret this report.

ASSESSMENT SUMMARY

Compilation: PASSED
API: PASSED

SpotBugs: FAILED (1 warning)
PMD: PASSED
Checkstyle: PASSED

Correctness: 23/23 tests passed
Memory: 4/4 tests passed
Timing: 1/1 tests passed

Aggregate score: 100.00%
[Compilation: 5%, API: 5%, Style: 0%, Correctness: 60%, Timing: 10%, Memory: 20%]

ASSESSMENT DETAILS

The following files were submitted:

8.2K Aug 7 01:13 BaseballElimination.java

* COMPILING

% javac BaseballElimination.java

*-----

=====

Checking the APIs of your programs.

*-----

BaseballElimination:

=====

* CHECKING STYLE AND COMMON BUG PATTERNS

% spotbugs *.class

*-----

L P UPM_UNCALLED_PRIVATE_METHOD UPM: The private method 'getNumOfPairings()' is never called. At BaseballElimination.java:[line 200]
SpotBugs ends with 1 warning.

=====

% pmd .

*-----

=====

% checkstyle *.java

*-----

% custom checkstyle checks for BaseballElimination.java

*-----

=====

* TESTING CORRECTNESS

Testing correctness of BaseballElimination

*-----

Running 23 total tests.

Test 1: check numberOfTeams()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 2: check teams()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 3: check wins()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 4: check losses()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 5: check remaining()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 6: check against()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 7a: check isEliminated() when n = 4

- * teams4.txt
- * teams4a.txt
- * teams4b.txt

==> passed

Test 7b: check isEliminated() when n = 5

- * teams5.txt
- * teams5a.txt
- * teams5b.txt
- * teams5c.txt

==> passed

Test 7c: check isEliminated() when n = 6 to 19

- * teams7.txt
- * teams8.txt
- * teams10.txt
- * teams12.txt
- * teams12-allgames.txt

==> passed

Test 7d: check isEliminated() when n = 20 to 30

- * teams24.txt
- * teams29.txt
- * teams30.txt

==> passed

Test 7e: check isEliminated() when n = 30 to 50

- * teams32.txt
- * teams36.txt
- * teams42.txt
- * teams48.txt

==> passed

Test 8: check that isEliminated() is consistent with certificateOfElimination()

- * teams4.txt
- * teams5.txt
- * teams8.txt
- * teams10.txt
- * teams29.txt
- * teams48.txt

==> passed

Test 9a: check certificateOfElimination() when n = 4

- * teams4.txt
- * teams4a.txt
- * teams4b.txt

==> passed

Test 9b: check certificateOfElimination() when n = 5

- * teams5.txt
- * teams5a.txt
- * teams5b.txt
- * teams5c.txt

==> passed

Test 9c: check certificateOfElimination() when n = 6 to 20

- * teams7.txt
- * teams8.txt
- * teams10.txt
- * teams12.txt
- * teams12-allgames.txt

==> passed

Test 9d: check certificateOfElimination() when n = 20 to 30

- * teams24.txt
- * teams29.txt
- * teams30.txt

==> passed

Test 9e: check certificateOfElimination() when n = 30 to 50

- * teams32.txt
- * teams36.txt
- * teams42.txt
- * teams48.txt

==> passed

Test 10: check methods when n = 1

- * teams1.txt
- * teams1.txt
- * teams1.txt
- * teams1.txt
- * teams1.txt
- * teams1.txt
- * teams1.txt

==> passed

Test 11: check immutability by calling certificateOfElimination() both before
and after calling isEliminated() and verifying that the results match

- * teams4.txt
- * teams5.txt
- * teams29.txt

==> passed

Test 12: check that certificateOfElimination() returns null for eliminated teams

- * teams4.txt
- * teams5.txt

==> passed

Test 13: check for invalid arguments

- * teams4.txt
- * teams5.txt

==> passed

Test 14: check for dependence on reference equality of strings

=> passed

Test 15: check that two Baseball objects can be created at the same time

* teams4.txt and teams5.txt

* teams5.txt and teams7.txt

=> passed

Total: 23/23 tests passed!

=====

* TIMING

Timing BaseballElimination

*-----

Running 1 total tests.

n	constructor	isEliminated() + certificateOfElimination()
30	0.01	0.32
36	0.01	0.65
42	0.00	1.29
48	0.00	2.43
54	0.00	4.07
60	0.00	6.79

time = 9.46e-08 * n^4.41 (R^2 = 1.00)

Total: 1/1 tests passed!

=====

* MEMORY

Analyzing memory of BaseballElimination

*-----

Running 4 total tests.

Student vertices = $0.50 n^2 + 0.50 n + 1.00$ (R^2 = 1.000)
Reference vertices = $0.50 n^2 - 0.50 n + 3.00$ (R^2 = 1.000)
=> passed

Student edges = $1.50 n^2 - 3.50 n + 2.00$ (R^2 = 1.000)
Reference edges = $1.50 n^2 - 3.50 n + 2.00$ (R^2 = 1.000)
=> passed

Student memory of G = $176.00 n^2 - 344.00 n + 304.00$ (R^2 = 1.000)
Reference memory of G = $176.00 n^2 - 384.00 n + 384.00$ (R^2 = 1.000)
=> passed

Student memory = $3.83 n^2 + 208.32 n + 614.86$ (R^2 = 1.000)
Reference memory = $3.99 n^2 + 214.25 n + 396.00$ (R^2 = 1.000)
=> passed

Total: 4/4 tests passed!

=====