

# ERRATA

If you discover any other errors, please e-mail them to [collinsw@lafayette.edu](mailto:collinsw@lafayette.edu).

The unascribed errors below were discovered by Marcello Dalpasso of the University of Padova in Italy.

1. (The error was discovered by Conrad Weisert) On page 3, the range for **short** should be -32768 to +32767, and the range for **byte** should be -128 to +127.
2. (The error was discovered by Conrad Weisert) On page 5, the first line in Section 0.2.2 should have "... returns (a reference to )a copy of a specified ...".
3. On page 6, second paragraph, "Section 2.2" should be "Section 2.3"
4. On page 12, in the middle of the page, "Section 2.2" should be "Section 2.3"
5. On page 13, second paragraph, next/hasNext should be nextInt/hasNextInt, multiple times.
6. On page 15, first paragraph, "Section 0.4" should be "Section 0.2.4"
7. On page 28, third line, "Section 1.5" should be "Section 1.4"
8. On page 30, second code block, **public draw** should be **public void draw**
9. On page 43, last line, "best-paid hourly employee" should be "best-paid employee"
10. (The error was discovered by Conrad Weisert) On page 60, the second indented line of code should be  

```
protected final static int SPEED_LIMIT = 65; // miles per hour
```
11. On page 62, fifth code line from bottom, "ToStringTest" should be "FullTimeEmployeeTest"
12. On page 68, first code line, there is an extra ) at the end of the line
13. On page 85, second code block, the last line should be removed ("The execution of this project has ended.")
14. On page 85, third line from the bottom: **next** should be **hasNext**, and **nextLine** should be **hasNextLine**
15. On page 90, the last if of method scores3Test1 should test scActual instead of scExpected

16. On page 93, just before section 2.7: "Section 2.6" should be "Section 2.7"

17. On page 95, second text block, "Section 1.3.2" should be "Section 1.2.2"

18. (The error was discovered by Conrad Weisert) On page 95, the first line of the return statement two thirds of the way down the page should be

**return name.equals (full.name) &&**

19. On page 97, "instanceof method" should be "instanceof operator"

20. On page 102, ex. 2.11 and 2.11, "Section 2.7" should be "Section 2.8"

21. On page 126, first paragraph, "doubles" should be "integers", it occurs three times in the last two sentences.

22. On page 137, specification of **getPrefix** method, "@returns" should be "@return"

23. On page 144, the comment before `remove()` is missing its end, `*/`

24. On page 153, in the specification of the second constructor, the "@throw" tag should be "@throws"

25. (The error was discovered by Conrad Weisert) On page 162, the third expression in the **for** statement of the factorial method should be `i—`

26. On page 179, a semicolon is missing at the end of the `compareTo` heading

27. On page 180, fourth line of the method specification, "Sort" should be "sort", lowercase

28. (The error was discovered by Conrad Weisert) On pages 185 and 186, the name of the test class should be `BinarySearchTest`.

29. (The error was discovered by Conrad Weisert) On page 200, in the `isOK` method, the four instances of `""` should be replaced with `&&`

30. (The error was discovered by Conrad Weisert) On page 201, in the `isGoal` method, `""` should be replaced with `&&`

31. On page 216, second code line, there is an extra right parenthesis

32. On page 220, at the end of item 2., the **char** keyword (to perform a cast) should be enclosed in parentheses by itself (besides the shown parentheses)

33. On page 222, in the last choices in programming project 5.2, in the comments (1,2) should be (2,1) (three times)
34. On page 237, in line 3 of Note 2, "calling object" should be "object being constructed"
35. (The error was discovered by Vinay Venkatachala) On page 243, the following unindented line should be inserted after line 6 ("vegetables [j] = vegetables [j + 1];"):   
  
**vegetables [5] = null;**
36. (The error was discovered by Conrad Weisert) On page 248, the third sentence should be "That is, each element is saved as a stream of bytes, not as an array of elements whose type is the class that replaces E when the ArrayList class is instantiated."
37. On page 249, next-to-last line, **arrayCopy** should be **arraycopy**
38. On page 251, in the 6th line from the bottom of the page, "Exercise 6.5" should be "Programming Exercise 6.5"
39. On page 251, in the 5th line from the bottom of the page, "Programming Assignment 6.1" should be "Programming Project 6.1"
40. On page 256, in the first line, "to the VeryLongInt object sum, sum will" should be "to the ArrayList object sumDigits, sumDigits will"
41. On page 257, in the fourth line after the code block, "otherVeryLongInt" should be "otherVeryLong"
42. On page 262, in the code comment at the bottom, worstTime(n) should be  $O(n^2)$
43. On page 269, in the last code fragment, <Double> should be replaced with <String> both times
44. On page 274, in the caption of Fig 7.5, "from Figure 2.5" should be "from Figure 7.4"
45. On page 274, in the first sentence after the definition of the addToFront method, "the first four" should be "the four"
46. On page 275, in the next-to-last line, "compare element" should be "compare obj"
47. On page 276, in the first line, "element" should be "obj"
48. On page 278, in the first line, "SinglyLinkedIterator" should be "SinglyLinkedListIterator"
49. On page 279, in the second line of the third text section, "Iterator interface calls for" should be "List interface calls for"

50. On page 279, in the last line of code, "myList" should be "myLinked"
51. On page 287, in the first and third lines of code in the Example, "listIterator" should be "fruits.listIterator"
52. On page 288, in the last code block, "ListIterator" should be "ListIterator<String>"
53. On page 296, in the first line of Section 7.3.6, "LinkedLinked" should be "LinkedList"
54. On page 298, in the last line of Section 7.3.6, "Section 7.4" should be "Section 7.3.7"
55. On page 300, in the last line of section 7.3.7, "Section 7.5" should be "Section 7.4"
56. On page 302, in the first "error message", "greater the second" should be "greater than the second"
57. On pages 304-306, each occurrence of "RunTimeException" should be "RuntimeException"
58. On page 310, in the try block of the method tryToDelete, "int m" should be "m" and "int n" should be "n"
59. On page 311, in the try block of the method tryToSetCurrentLineNumber, "int m" should be "m"
60. On page 312, in the definition of the method done, the definition of itr should be followed by the line `String s = "";`
61. On page 314, in the definition of the method editText, the definition of result should be followed by the line `Editor editor = new Editor();`
62. On page 332, in the first for loop of the method run, `i-` should be `i--`
63. (The error was discovered by Vijay K. Gurbani) On page 343, just before Section 8.1.5, the notice about Lab 15 should be moved to page 349 (just before the next-to-last line).

The reason for this change is that Lab 15 uses an implementation of the **Queue** interface.

64. On page 358, the declaration of BAD\_TIME should be "The next arrival time must not be greater than the current time."
65. On pages 361 - 363, the method heading for printResults should have `CarWash carwash` for the parameter list
66. (The error was discovered by Vijay K. Gurbani) On page 364, halfway down the page, the line should be

To solve this equation for `timeTillNext`, we take (natural) logs of both sides:

67. On page 368, ex. 8.7, "Programming Exercise" should be "Concept Exercise"
68. On page 384, in the caption of Figure 9.11, "two tree" should be "two-tree"
69. On page 396, ex. 9.4i, "two tree" should be "two-tree"
70. On page 397, ex. 9.10, "non-empty tree" should be "non-empty binary tree"
71. On page 398, ex. 9.14, "b >= d" should be "b <= d"
72. On page 403, in the header of the Comparable interface: "Comparable" should be "Comparable<T>"
73. On page 404, the constant identifier DELTA should also have the "static" modifier
74. On page 405, the first line in the definition of the compareTo method should be deleted.
75. On page 413, in the header of the copy method, "Entry<<?" should be "Entry<?"
76. On page 432, near the end of the page, the comment block should be followed by \*/
77. On page 432, the method "rotateLeft" should be "leftRotate"
78. On page 434, in the first line of code, "Figure 10.8" should be "Figure 10.25"
79. (The error was discovered by Conrad Weisert) On page 462, the med3 method returns *the index of the median of x [a], x [b] and x [c]*.
80. On page 466, in the first sentence after the declaration of the class ByLength, "the two elements to be ordered" should be "the two elements to be compared"
81. On page 467, in line 1, "static void" should be "static <T> void", and "Comparator" should be "Comparator<T>"
82. On page 475, in the middle of the page, "Section 13.3" should be "Section 11.4"
83. On page 475, in section 11.4.1.1, "public static void" should be "public static <T> void" and "sort(T[ ]," should be "sort(T[ ] a,"
84. On page 476, in the definition of the sort method, "public static void" should be "public static <T> void", "List list" should be "List<T> list", and "ListIterator" should be "ListIterator<T>"
85. On page 479, in Figure 11.5, c points to 59 but it should point to 61 (c was decremented after the swap)

86. On page 480, in Figure 11.6, c points to 80 but it should point to 33 (c was decremented after the swap)
87. On page 480, in Figure 11.8, b and c should be swapped
88. On page 482, the first line in the specification for the med3 method should be "Finds the index of the median of three specified elements in a given array."
89. On page 483, in the 13th line of text, "in sorting the tree" should be "in sorting the array"
90. On page 484, in the 9th line from the bottom of the page, "The choice of 7 for the pivot" should be "The choice of 7 for the minimum partitioning size"
91. On page 486, in the second line of code, "d-" should be "d--"
92. On page 495, in the first line of Concept Exercise 11.4, "integers 0 ... 49" should be "integers 0 ... 48"
93. On page 497, in Programming Exercise 11.4, the second line should be **while (b <= c && x[b] < v) and while (c >= b && x[c] > v)**
94. (The error was discovered by Conrad Weisert) On page 506, in the @return documentation comment, replace "at least one" with "a".
95. (The error was discovered by Conrad Weisert) On page 516, the second statement in the definition of the deleteEntry method should be  
  
size--;
96. On page 518, the third-from-last and last lines in the System Test should be "Here are the synonyms of one: [singular, unique]" and "Here are the synonyms of close: [near, confined]"
97. On page 523, the REQUEST\_FILE\_PROMPT should be "\nPlease enter the path for the requests file: ", the SYNONYM\_FILE\_PROMPT should be "\nPlease enter the path for the synonyms file: ", and there should not be a NO\_INPUT\_FILE\_FOUND\_MESSAGE identifier.
98. On page 524, near the end of the try block, "synonymFileWriter.close();" should be "synonymPrintWriter.close();"
99. On page 528, in the first line of paragraph 2, "a given SortedSet object, usually a TreeSet" should be "a given NavigableMap object, usually a TreeMap"
100. On page 528, in the constructor with a map parameter, "TreeSet<E>(...)" should be "TreeSet(...)"

101. On page 529, in the @return comment of contains, "at least one" should be "one"
102. On pages 532 - 535, "addToDictionarySet" should be "addToDictionary" and "addToDocumentSet" should be "addToDocument"
103. On page 539, in Exercise 12.10, "Exercise 12.8" should be "Exercise 12.9"
104. On page 556, the compareTo method should be as follows:

```

/**
 * Compares this Student object with a specified Student object.
 * The comparison is by grade point averages.
 *
 * @param otherStudent – the specified Student object that this Student
 * object is being compared to.
 *
 * @return -1, if this Student object's grade point average is at least DELTA
 *         less than otherStudent's grade point average;
 *         0, if this Student object's grade point
 *         average is within DELTA of otherStudent's grade point average;
 *         1, if this Student object's grade point average is at least DELTA
 *         greater than otherStudent's grade point average.
 */
public int compareTo (Student otherStudent)
{
    final double DELTA = 0.0000001;

    if (gpa < otherStudent.gpa - DELTA)
        return -1;
    if (gpa > otherStudent.gpa + DELTA)
        return 1;
    return 0;
} // method compareTo

```

The reason for this change is that **double** values should not be compared for equality.

105. On page 560, in the last sentence and the first sentence on page 561, "and replaces that child ..." should be "and repeatedly replaces that child with its parent until the element to be inserted is greater than or equal to the new parent. Then the element is inserted at the previous parent's index."

106. On page 562, in the second sentence, "28 is <=" should be "28 >="
107. On page 565, the caption for Figure 13.8 should be just one sentence:  
"The heap from Figure 13.7 after the smaller-valued of the root's children replaces the root."
108. On page 570, in the third line after Figure 13.12, "queue[-size]" should be "queue[--size]"
109. On page 570, in the sixth line after figure 13.12, "is a complete binary tree except" should be "is a heap except"
110. On page 588, in the last two lines, "arguments to ..." should be "arguments to the **createEncoding** and **saveEncodedMessage** methods. Those methods are called outside of the **try** block in which **fileScanner**, **inFilePath** and **printWriter** are initialized."
111. On page 606, in the second line of code, "033518000" should be "33518000"
112. On page 608, in the seventh line from the bottom, "hash(key)" should be "hash(key.hashCode())"
113. On pages 610, 611 and 616 (twice), "33532452" should be "33532977"
114. On page 615 near the bottom of the page, replace the two sentences that begin with "Starting at" with only one sentence: "Starting at index 0 and working up to index table.length-1, the linked list at each index is traversed in sequential order."
115. On page 616, the order in which the keys would appear in an iteration should be

1842336783  
1102282446  
1173431176  
1320358464  
831947084  
62488979  
33532977  
1917270349

116. On page 617, the second paragraph ("In the worst case,...") should be replaced with
- In the worst case, a call to the next() method will start at the end of the linked list at table [0], with empty linked lists at table [1], table [2], ..., and a non-empty linked list at table [table.length - 1].
117. (The error was discovered by Conrad Weisert) On page 617, the following sentence should be inserted just before the last sentence in the next-to-last paragraph:

We assume that there are no double-quotation marks inside a comment.



118. On pages 618 – 620, here are the contents of hasher.out:

Here is the symbol table:

float=reserved word  
else=reserved word  
native=reserved word  
do=reserved word  
j=identifier  
i=identifier  
new=reserved word  
public=reserved word  
x=identifier  
args=identifier  
long=reserved word  
ans=identifier  
synchronized=reserved word  
double=reserved word  
String=identifier  
throw=reserved word  
main=identifier  
package=reserved word  
break=reserved word  
byte=reserved word  
import=reserved word  
final=reserved word  
Sample=identifier  
const=reserved word  
short=reserved word  
null=reserved word  
void=reserved word  
true=reserved word  
implements=reserved word  
char=reserved word  
extends=reserved word  
int=reserved word  
enum=reserved word  
this=reserved word  
while=reserved word  
super=reserved word  
if=reserved word  
abstract=reserved word  
interface=reserved word  
z1=identifier  
z5=identifier  
boolean=reserved word  
volatile=reserved word  
static=reserved word

bottom=identifier  
try=reserved word  
assert=reserved word  
println=identifier  
transient=reserved word  
case=reserved word  
catch=reserved word  
System=identifier  
top=identifier  
Integer=identifier  
out=identifier  
for=reserved word  
false=reserved word  
switch=reserved word  
goto=reserved word  
finally=reserved word  
private=reserved word  
return=reserved word  
throws=reserved word  
class=reserved word  
default=reserved word  
instanceof=reserved word  
protected=reserved word  
strictfp=reserved word  
continue=reserved word

119. On page 621, in the method `testIgnoreStringLiterals`, "`hasher.readSourceCode (fileScanner)`" should be "`hasher.readSourceCode (fileScanner, symbolTable)`"
120. On page 623, in the third text sentence, "It must start with a letter" should be "It must start with a letter or an underscore or a dollar sign"
121. On page 624, in the 12th line of code, `indexOf ("\ " ' ')` should be `indexOf ( "\ " "`
122. On page 626, in the table, "081903292" should be "81903292" and "033520048" should be "335200048" because a leading zero would imply octal notation instead of decimal notation.
123. On page 627, the following sentence should be inserted at the end of the caption for Figure 14.7: "For the sake of readability, the social-security-numbers are printed with leading zeros and hyphens."
124. On page 629, the code in line 3 should be "`remove (new Integer (33520048))`"
125. On pages 629/630, in Figures 14.9 & 14.10, the vertical bar between social numbers and booleans should not extend to the "big empty" boxes since they contain null and not any entry.

126. (The error was discovered by Conrad Weisert) On page 656, in the third sentence, "Tennessee" should be replaced with "Tallahassee".
127. On page 670, in the specification of the method `addEdge`, "UndirectedNetwork" should be "Digraph" (twice).
128. On page 673, the *worstTime* ( $V, E$ ) for `removeEdge` should be  $O(\log V)$ .
129. On page 686, in the itemized list, "Programming Assignment" should be "Programming Project" (four times)
130. On page 694, in the heading for the `sort` method, "vertex" should be "Vertex"
131. On page 695, in the file `tsp.in2`, "99" should be "9"
132. On page 712, near the end of example A2.3, "And so `fib(n+1)` is true" should be "And so  $S_{n+1}$  is true"
133. On page 717, in the second line of Claim 2, " $n(t) \leq$ " should be " $n(t) \geq$ "