ERRATA for 
Database System Concepts, 4th Edition 
Silberschatz, Korth, and Sudarshan 
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Chapter 1

Page 12, line 12 from the bottom: 192-83-7465 → ‘192-83-7465’
Page 12, line 2 from the bottom: 192-83-7465 → ‘192-83-7465’
Page 16, line 5 from the bottom: responsibilities → responsibilities
Page 24, line 4 from the bottom: PostgresSQL → PostgreSQL, and www.postgresql.org → www.postgresql.org.

Chapter 2

Page 63, first paragraph under 2.9.1 after the last sentence add:
“(We describe how to handle composite and multivalued attributes later, in Sections 2.9.4 and 2.9.5.)”

Page 66, at the end of section 2.9.3.2 add the following new paragraph:

In the case of one-to-one relationships, the table for the relationship set can be combined with the tables for either of the entity sets. We can combine tables even if the participation is partial, by using null values; in the above example we would store null values for the branch-name attribute for accounts that have no associated branch.

Page 67, line 4 under 2.9.6: “savings-account and checking-account” → “employee and customer. We assume that name is the primary key of person.”

Page 67, bullets under item number 1 should read:

• person, with attributes name, street and city
• employee, with attributes name and salary
• customer, with attributes name and credit-rating

Page 67, bullets under item number 2 and the following 2 lines should read:

• employee, with attributes name, street, city and salary
• customer, with attributes name, street, city and credit-rating

The employee and customer relations corresponding to these tables both have name as the primary key.

Page 67, section 2.9.6 last paragraph should read:

“If the second method were used for an overlapping generalization, some values would be stored multiple times, unnecessarily. For instance if a person is both an employee and a customer, values for street and city would be stored twice. If the generalization were not complete—that is, if some person is neither an employee nor a customer—then an extra table person would be required to represent such persons.

1Errors reported by: Y. C. Chin, Arvind Hulgeri, Max Smolens, Nikhil Sethi, and the authors.
Chapter 3
Page 124, second bullet item, line 3: \( n \to s, t \) in two places.

Chapter 4
Page 155, last line: \( \text{result} \to \text{branch-avg} \)
Page 156, line 2: \( \text{result} \to \text{branch-avg} \)
Page 157, line 9: “less than” \( \to \) “greater than”
Page 162, last para, bullet item: at the end of the sentence replace “database.” by “database – and without using aggregation.”
Page 181, para 3, line 6: “for for” \( \to \) “for”
Page 184, Figure 4.12: Drop “#” from “\text{driver-id#}” in two places.

Chapter 5
Page 213, para 2: “\( \text{Infer}(R, I) = I \)” \( \to \) “\( \text{Infer}(R, I) \cup D = I \), where \( D \) is the set of facts in the database,”

Chapter 7
Page 262, Figure 7.2: In the last-but-one line of the figure, which reads \( a_2, b_2, c_2, d_3 \), change \( b_2 \) to \( b_3 \).
Page 275, one line from bottom: Section 7.2 \( \to \) Section 7.4.

Chapter 8
Page 317, para 2, line 3: \( \text{reference} \to \text{reference} \)
Page 320, last bullet item: Replace the second of the first para and the first sentence of the second para in this bullet item by
“All other objects are persistent if (and only if) they are reachable from the root object through a sequence of one or more references.
Thus, all objects referenced by (that is, whose object identifiers are stored in) the root persistent objects are persistent.”
Page 324, 5 lines from bottom: “Owner classes” \( \to \) “Customer classes”

Chapter 9
Page 349, second query: “A.name” \( \to \) “A”

Chapter 10
Page 367, Figure 10.6: “account–customer–depositor” \( \to \) “account | customer | depositor”
Page 375, 376 and 377: Replace “\text{match=".“}” by “\text{match="*"}” in the last line of all XSLT examples (2 occurrences on page 375, 1 on page 376 and 2 on page 377)
Page 375, 6 lines from bottom: “This is required because the default behavior of XSLT on subtrees of the input document that do not match any template is to copy the subtrees to the output document.” \( \to \)
“This is required because the default behavior of XSLT on elements of the input document that do not match any template is to copy their text contents to the output document, and apply templates recursively to their subelements.”
Page 375, last paragraph: Change “XSLT copies any tag that is not in the xsl namespace unchanged to the output.” → “Any text or tag in the XSLT stylesheet that is not in the xsl namespace is copied unchanged to the output.”

Page 376, before first line: Add the sentence: “Creating an attribute, such as customer-id in the generated customer element, is trickier and requires the use of xsl:attribute; see an XSLT manual for further details.”

Page 389, Exercise 10.7: “customer” → “depositor”

Chapter 11

Page 396, 2 lines at the bottom of the page: Delete the sentence “There may be hundreds of concentric tracks on a disk surface, containing thousands of sectors.”

Page 399, para 2, line 4: Replace the sentence “The disks are usually .. reliable disk.” by “The disks are usually organized locally using a storage organization technique called “redundant arrays of independent disks (RAID)” (described later, in Section 11.3), to give the servers a logical view of a very large and very reliable disk.”

Page 433, end of page: Add the sentence “After updating all persistent pointers, every entry \((P_i, P_i)\) in the translation table is replaced by \((v_i, P_i)\) where \(v_i\) is the virtual-memory page allocated to \(P_i\).”

Chapter 12

Page 485, Para 2, last two lines: “\(L_1\) (10100) gives the bitmap 00100.” → “\(L_2\) (01000) gives the bitmap 01000.”

Chapter 16

Page 626, bullet item 1, sub-bullet 4, para 2: “protcol” → “protocol”

Page 627, Figure 16.21: Replace the tree in this figure by the tree in Figure 12.8 (Page 455).

Chapter 19

Page 724, Section 19.5.1.4 (Majority Protocol): Add the following lines at the beginning of the second paragraph (which starts as “This scheme deals with ..”)

“We assume for now that writes are performed on all replicas, requiring all sites containing replicas to be available. However, the major benefit of the majority protocol is that it can be extended to deal with site failures, as we will see in Section 19.6.1.

Page 725, Section 19.5.1.6 (Quorum Consensus): In the second para, starting “To execute a read operation ...”, replace “must be read” by “must be locked” and “must be written” also by “must be locked”

Replace the third para (starting with “The benefit of the quorum...”) by

“A benefit of the quorum consensus approach is that it can permit the cost of either read or write locking to be selectively reduced by appropriately defining the read and write quorums. For instance, with a small read quorum, reads need to obtain fewer locks, but the write quorum will be higher, hence writes need to obtain more locks. Also, if higher weights are given to some sites (for example, those less likely to fail), fewer sites need to be accessed for acquiring locks.

Like the majority protocol, quorum consensus can be extended to work even in the presence of site failures, as we will see in Section 19.6.1.

Page 745, Figure 19.6: Add a paranthesis “)” to the end of the line entry - ldap.next_entry(Id, entry)

Chapter 22
Page 824, Figure 22.5, second row, second column: “skirt” → “pants”, and “dress” → “shirt”

Page 826, second SQL query: “from sales, category” → “from sales, itemcategory”

Chapter 24

Page 892, last para, lines 1 and 5: “Single-server” → “single server” (do not change other occurrences of “single-server”).

Chapter 26

Page 962: “withhold” → “with hold”