An Introduction to Database Systems

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ERRATA

Preface

page xvii, 1st paragraph, line 5
and the chapters on

Chapter 1

page 7, 1st full paragraph, 4th line
... an attribute of the *ENROLLMENT* relationship

page 13, last paragraphgraph, 3rd line
called the **external view, logical view, user view** ...

page 17, 6th paragarph, line 5
... of the database. There ...

page 17, 6th paragarph, line 6
... described by their exxternal views. ...

page 19, 2nd full paragraph, 4th and 5th lines
data independent

page 22, last paragraph, 4th line
such as Assembler, C, COBOL, ...

page 25, Figure 1.19
A directed line from the box labeled "Database procedure" calls to the box labeled "Compiled & optimized version" is missing.

page 26, 3rd full paragraph, 3rd line from end
... (menu based or form based) ...

page 29, last paragraph, 2nd line
... adequately backed up so that ...

Chapter 2

page 50, in the definition
$\mathbf{R} \subseteq \{e_1, \ldots$

page 54, Figure 2.28
Salary, ***Type***, ***Degree***, ***Interest***, ***Classification***, ***Stripend***, ***Hour_Rate*** are in italics

page 63, last line
record occurrence of a record type cannot ...

page 70, last two lines
... duplicate record types or introducing virtual records and using multiple hierarchies.

Chapter 3

page 93, 1st full paragraph. 3rd line from bottom
... e.g., if the record ...

page 93, 3rd full paragraph, 5th line
... Although the indexes and the ...

page 93, last paragraphgraph, 1st and 2nd lines
... calld an **index-sequential file** ...

page 96, Algorithm 3.2
get next index entry;

page 98, last paragraph, 2nd to last line and last line
higher level indexes .... lower level indexes.

page 101, Figure 3.13, 2nd line in Normal track index entry
on the prime data

page 104, in 2nd equation

$$+ \begin{cases} i \text{ if data on prime area} \\ 0 \text{ if data on prime area} \end{cases}$$

page 111, Figure A (iii), last entry in Bucket address table
2 01 b_3

page 126, 4th line
... is at least $\lceil (m-1)/2 \rceil$ and..

page 129, 1st full paragraph, 2nd last line
... insertion of the pair <k', T_N> is between ...

page 130, top diagram
P_Y is the address of the second node

page 136, 2nd last paragraph, 3rd line
... The search for a record in a serial file entails

Chapter 4

page 147, Example 4.2
end of 4th line .... are shown in part ii
end of 6th line .... is shown in part i of the ..
end of last line .... shown in part ii of Figure B.

page 150, 2nd full paragraph, 5th line
... from Figure C in Example 4.3 ...

page 153, 1st full paragraph, 5th line
APPLICATION of Figure Bii of Example ...

page 157, 2nd last paragraph, end of last line
... This is illustrated in example 4.15.

page 160, 3rd line from bottom
... ASSIGNMENT relation of Figure 4.3(a) with ...

page 163, Example 4.19, end of 1st line
... employee and their manager. Each employee

page 176, 7th line
... is shown in Figure Kii. Note ...

page 178, Example 4.29, 2nd paragraph
The PRODUCT and TEMP relations are ...

page 181, Example 4.32, 1st line
... working on a Database ...

page 190, Example 4.44, 2nd line in the last formula
$\forall t(t \notin$ PROJECT ...

page 192, Example 4.47, 2nd line in the first formula
$\neg\exists u(u \in$ ASSIGNED_TO ...

page 195, Example 4.51, end of 1st line in the formula
... $\exists e_2(<p, e_2> \in$ ASSIGNED_TO $\wedge$

Chapter 5

page 209, last text paragraph, 2nd line
... (Because order is a reserved ...

page 224, Example 5.9 4th line in SQL statement
and ORDR.*Dish*# = MENU.*Dish*#

page 232, Example 5.19, last line of SQL statement
where *Posting_No* = 321)

page 234, Example 5.22(a), 3rd line of SQL statement

where BILL.*Bill*# = ORDR.*Bill*#

page 240, 3rd paragraph, last line
... and PAYRATE(*Empl*#, *Pay_Rate*), ...

page 249, Example 5.38
result is

Posting_No	*Shift*	*Day*
350	1	19860418
351	1	19860419

page 261, 3rd full paragraph, 3rd line
... the percent pay raise of the employee.

page 266, 3rd line from end
the aggregate function in *e.Skill*. ...

page 276, Example 5.61(d), skeleton table

EMPLOYEE	*Name*	*Pay_Rate*
	P.EX	P.RX AVG.ALL.RY

Chapter 6

page 289, 6th line from the bottom
TEACHER (***Course***, *Prof*)

page 295, Inference Axiom F1
F1: Reflexivity: (**X** → **X**)

page 299, Algorithm 6.1, statement after the 2nd begin
if **W** ⊆ $\mathbf{X}^+$ and **Z** ⊄ $\mathbf{X}^+$ *then do*

page 299, last line
...at most **f** times, once for each ...

page 301, last line in 2nd text paragraph
... set of FDs **G** where **G** contains ...

page 302, Algorithm 6.3, Input
Input: A set of FDs **F**.

page 303, last sentence in paragraph after Example 6.11
... equivalent. However, **G** will

page 304, Example 6.12, 1st line
... CD → E, E → C, CD → AEH ...

page 312 2nd line of 2nd item of bulleted list
... Since for a key **Z** of **R**, **Z** → **X** with **X** not ...

page 317, Theorem 6.1, 2nd line
... and $\mathbf{R}_2$<(**X**,**Z**), $\mathbf{F}_2$> is:

page 339, 3rd line from bottom
... 2nd Ed., Rockville MD, ...

Chapter 7

page 344, 6th line from top
... with key DH

page 346, 4th and 5th relations
(ABEG) with key (ABE)
(ACDF) with key (ACD)

page 347, Algorithm 7.1, last line
... add the relation {**K**} to the relation ...

page 355, Algorithm 7.2,
add the following in Step 3.
Also for each A ∈ **X**, add A to **S**
2nd line in step 5
but Y ∩ Z ≠ ϕ and Y − Z ≠ ϕ ...

page 358, line after 2nd paragraph
($\mathbf{R}_1 \cap \mathbf{R}_2$) →→ $\mathbf{R}_1$ or ($\mathbf{R}_1 \cap \mathbf{R}_2$) →→ $\mathbf{R}_2$

page 363, Figure 7.7 (b) 6th and 7th entries
Drew QUEL++
Shah SQL++

Chapter 8

page 417, 8th line in 1st program segment
2: BOOK_COPY.*Branch_Id* := 'Revere'

page 417, 6th line in 2nd program segment
find for update first BOOK_COPY **within** *COPY_STATUS*

page 420, 12th line in program segment
BOOK_COPY.*Current_Status* := in;

Chapter 10

page 464, 2nd last line, after the join operator
... ($\sigma_{Course\#>COMP300}$ REGISTRATION

page 464, last line, after the join operator

$\sigma_{Course\#>COMP300}$ COURSE)

page 467, Figure 10.2, in expression above table after the 1st join operator

($\sigma_{Course\#>COMP300}$ REGISTRATION

page 467, Figure 10.2, in expression above table after the 2nd join operator

$\sigma_{Course\#>COMP300}$ COURSE))

page 469 2nd line in item 3

... evaluation of $\sigma_Y(R \times S)$, ...

page 470, 3rd equivalence from bottom

$R \times S \equiv S \times R$

page 470, last equivalence from bottom

$R \times (S \times T) \equiv (R \times S) \times T$

page 477, numerator of expression for expected number of colors

n((m-1)/m) - i +1

page 490, 2nd full paragraph, line 4

of buffer is available ...

page 496, Example 10.22, last line

... equal to 40,000 * 400,000 * 600,000 * 5,000.

page 503, Example 10.23, 2nd last line

Course_Name='Database' should not be repeated

page 504, Algorithm 10.2,

Output Query on the base relations
Let X be the set of common tuple variable names in <from_list(V)> and <from_list(Q)>
For all names in r in X,
replace r in <target_list(V), <from_list(V)> and <where_clause(V)> by r'.

page 508, Exercise 10.6(b)

≡ should not be repeated

page 508, Exercise 10.7(b), after the 1st join operation

π_{BC} S

page 508, Exercise 10.7(b), after the 2nd join operation

T))

page 508, Exercise 10.8, 1st line in SQL query
select s.*Std*#, s.*Std_Name*

Chapter 11

page 512, 6th full paragraph, 3rd line
... In the **fault-avoidance method**, reliability ...

page 522, Figure 11.3
node labelled "Modify" should be labelled as "Transaction running"
There should be no directed edge between the node labelled "Abort" and the node labelled "End of Transaction"

page 534, Figure 11.9 in Log Operation for time t_7
old value of **Y**
new value of **Y**)

page 553, 4th reference
... Transaction Oriented ....

Chapter 12

page 575, Figure 12.15, 1st operation in Transaction T_{21}
Lockx(*Sum*)

page 580, Figure 12.18, heading for last column
UNLOCK

page 589, 2nd bulleted list, 2nd item, 1st line
... i.e., for all older transactions, ...

page 602, 4th line from top
... This is because the older ...

Chapter 14

page 645, 4th paragraph, 3rd line
... For a database to meet its objectives, ...

Chapter 15

page 683, 6th paragraph, 4th line
... us refer to this projection of S as S' and ...

page 684, Example 15.10 2nd paragraph, 3rd line
... For the join operation ...

page 684, Example 15.10 2nd paragraph, 5th line
... If $c_0 < c_1 * 107$, then ...

page 689, Figure H, operations at time t_6

T_{2s1}	T_{1s2}	T_{2s3}
A:= 200	A:= 100	A:= 200

page 718, Bibliographic Notes, 1st paragraph, 4th line
... System R*, developed