

ISTE-608 Database Design and Implementation

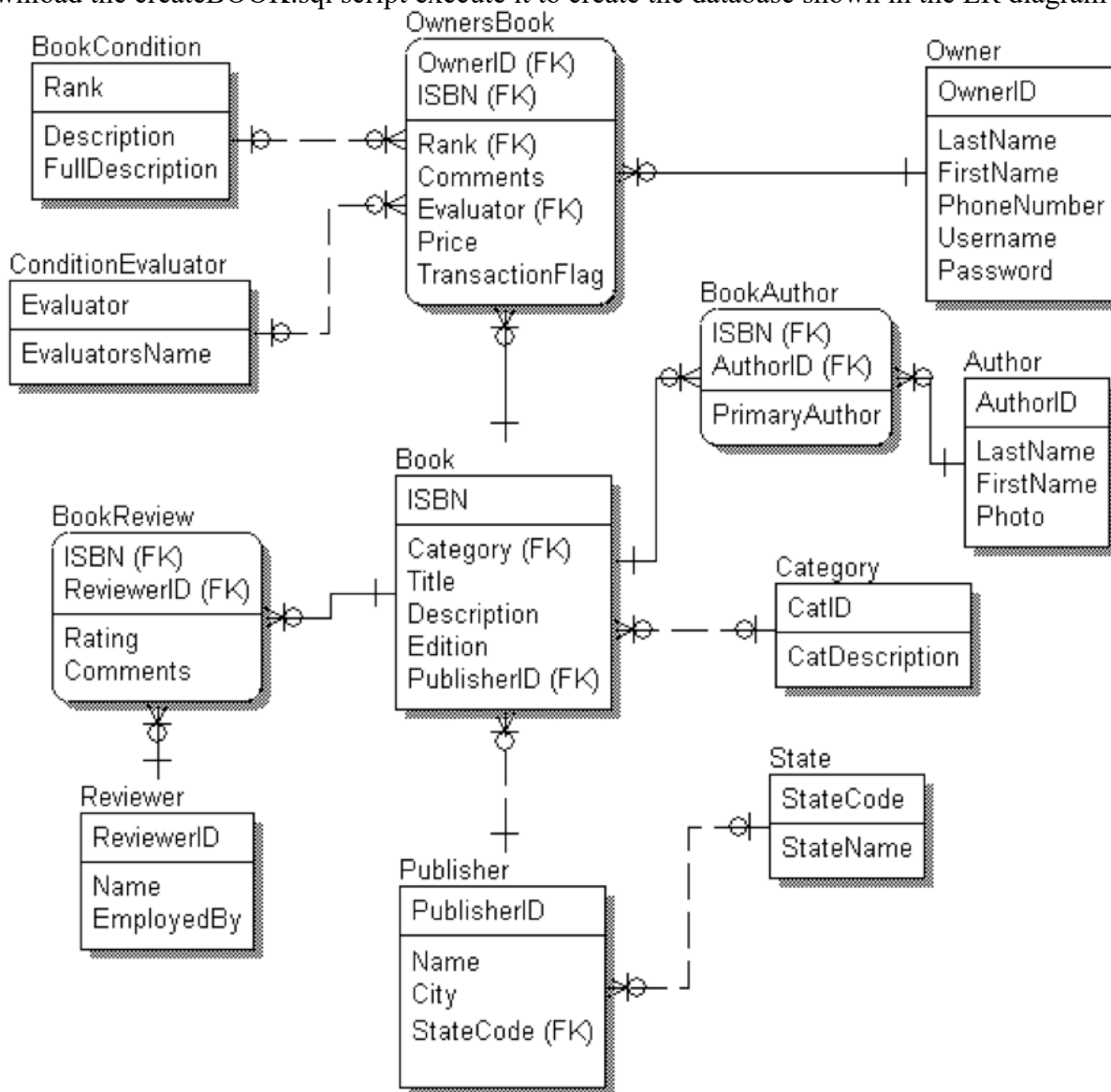
Homework #7 – SELECT statements and FUNCTIONS

DUE:

Submit your script to the HW#7 Dropbox by the deadline.

Needed to complete: MySQL version 5

Download the createBOOK.sql script execute it to create the database shown in the ER diagram below.





Captured in English, the entities of this Universe of Discourse, and the relationships among them, can be described like this:

Book	.. (1) identified by an ISBN , (2) written by one primary BookAuthor and zero or more secondary BookAuthors , (3) categorized by subject matter Category , (4) published by Publisher , and (5) reviewed in a given BookReview
BookAuthor	.. individuals that are either the primary or secondary author(s) of a specific Book occurrence
Author	.. individuals that are primary or secondary authors
BookReview	.. the rating assigned to a specific Book occurrence by a given Reviewer
Reviewer	.. individuals that review Books and assign a rating to it
OwnersBook	.. Books <i>owned</i> by Owners that are deemed to be in a certain Condition as rated by a ConditionEvaluator
Owners	.. individuals that <i>own</i> OwnersBooks
Condition	.. the set of Condition “rankings” (1..5, corresponding to “bad”, “poor”, “average”, “good” and “excellent”) that can be assigned to an OwnersBook
ConditionEvaluator	.. individuals that evaluate the condition of a book and assign a Condition to it
Category	... the set of BOOK subject matter classifications
Publisher	.. publishes BOOKS in a given U.S. State
State	.. state codes and full state names

Query the database

For each of the tasks that follow you will write a SQL statement that will answer the question given the specifications provided. The results you should achieve are shown after each task (unless a sort order is specified, if your records appear in a different order but the content is the same, that is fine). The SQL statement for each task, along with a preceding comment denoting the task number, should be placed in a script that follows the format ‘*yourlastname_HW7.sql*’.



1. (17 points) Count the number of publishers that are in each city, statecode combination. Sort your results by Count in ascending order, followed by location in descending order. Your output should match the display given below (including column headings):

Location	Count
San Francisco, CA	1
Rochester, MN	1
Hartford, CT	1
Boston, MA	1
Rochester, NY	2
Chicago, IL	3
New York, NY	4

7 rows in set (0.00 sec)

2. (31 points) For EVERY book in the book table, show the title, the count of the number of ratings, the minimum rating, the maximum rating, and the average rating rounded to the nearest penny. Your results should be sorted by the count of the number of ratings in descending order, followed by the average ratings in descending order. Your output should match the display given below (including column headings):

title	Total Ratings	Low	High	Average
Yes! Networking is for Bills Fans	3	5	8	6.33
The Shortest Book in the World	2	10	10	10.00
My Love's Last Lingering Lost	2	8	9	8.50
From Brockport to IT	2	7	10	8.50
How to Keep your Cellular Bill Down	2	7	8	7.50
Women are From Venus ORACLE is from Beyond Pluto	1	10	10	10.00
My Love's Last Longing	1	10	10	10.00
My Lost Love's Long Last Lingering	1	9	9	9.00
JAVA: It's more than Just a Programming Language	1	9	9	9.00
How to add Class to your Programming	1	9	9	9.00
I Lasted my Love's Last Lingering Longing	1	7	7	7.00
My Love's at Long Last Lost his Lingering	1	7	7	7.00
How to Keep your Cable Bill Down	1	7	7	7.00
From Deep in the Heart of Texas to IT	1	6	6	6.00
From the Shores of Lake Erie to IT	1	4	4	4.00
ER, SOM, NF, DK/NF, SQL, JDBC, ODBC, and RELVAR	1	4	4	4.00
Tired of wired? Infrared instead!	0	NULL	NULL	NULL
Master Wireless Through The Classic Comics	0	NULL	NULL	NULL
Master HTML Through The Classic Comics	0	NULL	NULL	NULL
Master C++ Through The Classic Comics	0	NULL	NULL	NULL
Calculus for Phys Ed Majors	0	NULL	NULL	NULL
The Science of Literature Searching	0	NULL	NULL	NULL
A language without Pointers? Priceless.	0	NULL	NULL	NULL

23 rows in set (0.00 sec)

3. (23 points) Show the publisher name and count of books published for those publishers that have published more than two books. Records should be sorted by the count of books published in descending order, followed by publisher name in ascending order. Your output should match the display given below (including column headings):

Publisher Name	Book Count
ReadEmandWeep Romance Publishing	5
CoverttoCover Publishing	4
EZRead Masterpiece Comics	3

3 rows in set (0.00 sec)

4. (18 points) Write a query that will select all of the book titles that have “bill” in their name and will display the title of the book, the length of the title, and the part of the title that follows “bill”. Your output should match the display given below (including column headings). (HINT: Use SUBSTR and INSTR.)

title	Length	After Bill
Yes! Networking is for Bills Fans	33	s Fans
How to Keep your Cellular Bill Down	35	Down
How to Keep your Cable Bill Down	32	Down

3 rows in set (0.00 sec)

5. (11 points) Show a listing of used book titles that are available (used books are found in ownersbook). A title should only appear once in the listing. Your output should match the display given below (including column headings):

title
The Shortest Book in the World
From the Shores of Lake Erie to IT
My Love's at Long Last Lost his Lingering
My Love's Last Lingering Lost
How to Keep your Cellular Bill Down
Yes! Networking is for Bills Fans
My Love's Last Longing
From Deep in the Heart of Texas to IT
How to Keep your Cable Bill Down
I Lasted my Love's Last Lingering Longing
My Lost Love's Long Last Lingering
ER, SOM, NF, DK/NF, SQL, JDBC, ODBC, and RELVAR
The Science of Literature Searching

13 rows in set (0.00 sec)