1. Create the following database:

Book(**ISBN**, title, author, publisher, publisher_city, publishing _year, price)
PhysicalCopy(**catalogNo**, ISBN, location, overdueChargePerDay)
Reader(**userName**, user_city)
Loan(**userName**, catalogNo, dateOut, dateIn)

Please specify your tables' definitions with primary key and foreign key constraints.

2. Populate the database (take care of foreign keys, you should fill the tables in a consistent way.) Insert tuples for each table based on the provided information in the end.

3. If a book is more expensive than 130 dollars, then increase the overdueChargePerDay by a dollar.

4. List the books' ISBN, title, author with the biggest overdueChargePerDay.

5. Which book has the most physical copies?

6. Delete those books and physical copies, which publishing_year is earlier than 2000 and at the moment no one is borrowing them.

7. Who is not borrowing any book?

8. Create a view with books published in Lincoln.

9. List the title, authors, and price for all the books published by Course Technology after 2002 in alphabetical order with respect to titles.

10. Suppose that each book has to be returned in 1 month. List all the readers (name and city) who have books borrowed more than 1 month ago. For answering that question you may use 'CURRENT_DATE', which is an SQL operator (which returns the current date:). The DateIn value for those readers is 'Null'.

11. List the names of all readers who have non-returned books together with the total number of non-returned books.

12. By a new regulation no one can have non-returned books than 2. Find the readers who have non-returned books more than 2 books.

13. Who are those readers living in the same city as the publisher_city of the book they borrowed? List the readers in alphabetical order with respect to userName.

Use ALTER for 14:

14. Add two new columns to your table Reader with attribute name: e-mail and telephone. There is no need to fill this column with data.

Provided Information:
Tuples of Book

ISBN	title	author	publisher	publisher_city	publishing_year	price
100001	Computer Architecture	Hennessy	McGrawHill	Omaha	2010	120
100002	Introduction to Algorithms	Cormen	MIT Press	Lincoln	1998	70
100003	Mastering Linux	Wang	Elsevier	Lincoln	2001	90
100004	Introduction to Java Programming	Liang	Prentice Hall	Omaha	2008	100
100005	Systems Architecture	Burd	Course Technology	Lincoln	2005	140
100006	Understanding Operating Systems	cHoes	Course Technology	Omaha	2005	70
100007	Modern Operating Systems	Tanenbaum	Prentice Hall	Omaha	2002	100
100008	Introduction to the Theory of Computation	Sipser	Course Technology	Lincoln	2001	60
100009	Fundamentals of Database Systems	Elmasri	Addison-Wesley	Omaha	2001	110
100010	Software Engineering	Sommerville	Addison-Wesley	Lincoln	2000	90

Tuples of Reader:

userName	user_city
Abe	Lincoln
Bob	Omaha
Chuck	Lincoln
David	Omaha
Edison	Lincoln
Frank	Omaha
Greg	Lincoln
Hall	Omaha
Iran	Lincoln
Jack	Lincoln

Tuples of Loan:

userName	catalogNo	dateOut	dateIn
Abe	2075	2012-09-14	2012-09-16
Abe	2083	2012-09-13	(Null)
Abe	2093	2012-09-12	(Null)
Abe	2103	2012-09-11	(Null)
Bob	2082	2012-09-24	2012-09-26
Bob	2092	2012-09-13	(Null)
Bob	2102	2012-09-12	(Null)
Chuck	2081	2012-10-02	2012-10-05
Chuck	2091	2012-10-03	(Null)
Chuck	2101	2012-10-04	(Null)
David	2053	2012-10-01	2012-10-03
David	2063	2012-10-01	(Null)
David	2074	2012-10-01	(Null)
Edison	2052	2012-10-02	2012-10-04
Edison	2062	2012-10-02	(Null)
Edison	2073	2012-10-02	(Null)
Frank	2044	2012-10-03	2012-10-05
Frank	2051	2012-10-03	(Null)
Frank	2061	2012-10-03	(Null)
Frank	2072	2012-10-03	(Null)
Greg	2033	2012-10-03	2012-10-05
Greg	2043	2012-10-03	(Null)
Greg	2071	2012-10-03	(Null)
Iran	2032	2012-10-03	2012-10-05
Iran	2041	2012-10-03	(Null)
Iran	2042	2012-10-03	(Null)
Jack	2031	2012-10-03	2012-10-05

Tuples of PhysicalCopy:

catalogNo	ISBN	location	overdueChargePerDay
2010	100001	Omaha	3
2011	100001	Lincoln	3
2012	100001	Lincoln	3
2021	100002	Omaha	2
2022	100002	Lincoln	2
2023	100002	Lincoln	2
2031	100003	Omaha	2
2032	100003	Omaha	2
2033	100003	Lincoln	2
2041	100004	Lincoln	3
2042	100004	Omaha	3
2043	100004	Omaha	3
2044	100004	Omaha	3
2051	100005	Lincoln	3
2052	100005	Omaha	3
2053	100005	Lincoln	3
2061	100006	Omaha	2
2062	100006	Lincoln	2
2063	100006	Lincoln	2
2071	100007	Omaha	3
2072	100007	Lincoln	3
2073	100007	Omaha	3
2074	100007	Omaha	3
2075	100007	Omaha	3
2081	100008	Lincoln	2
2082	100008	Lincoln	2
2083	100008	Omaha	2
2091	100009	Lincoln	3
2092	100009	Lincoln	3
2093	100009	Omaha	3
2101	100010	Omaha	2
2102	100010	Lincoln	2
2103	100010	Omaha	2