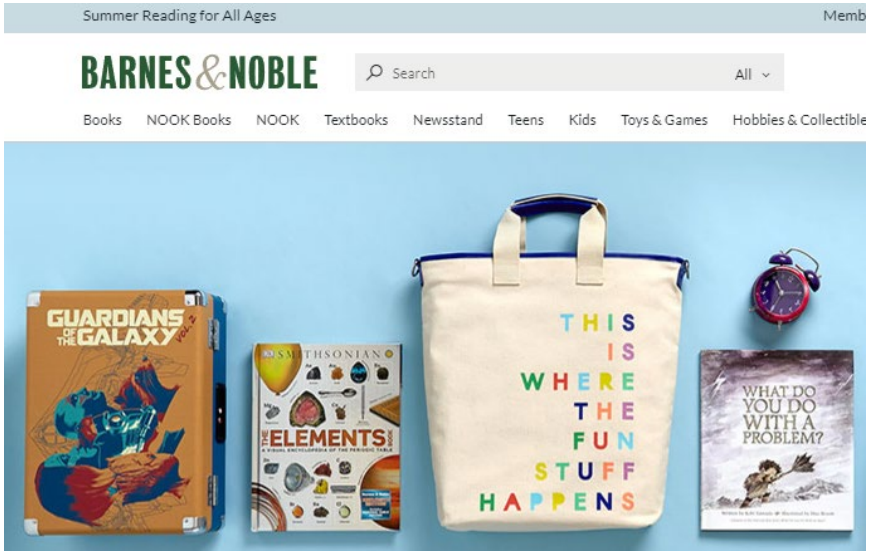
CSC 134-02 Database Management Systems (Spring 2022)

Online Bookstore (Mini Project 1)

Due: Sunday April 3, 2022, at 11:59 pm



1. Project Description

In this project, you implement the back end of an online bookstore, which involves the following:

- Create and populate tables in a MySQL database;
- Write correct SQL statements for the given queries.

2. Populating the Database

Establish the database below. A typical online bookstore has employees and should provide the ordering service for registered customers. The online bookstore acquires the desired books from suppliers such as Amazon.com, and then ships the books to customers by shippers such as UPS.

You should populate the following eight tables with the EXACT given data. The primary key of each table is underlined. The schema of the database is illustrated as below. It involves eight tables.

- **Suppliers (SupplierID, CompanyName, ContactLastName, ContactFirstName, Phone)**
- **Books (BookID, Title, Unit_Price, Author, Unit_in_Stock, SupplierID, SubjectID)**
- **Subjects (SubjectID, CategoryName)**
- **OrderDetails (BookID, OrderID, Quantity)**
- **Customers (CustomerID, LastName, FirstName, Phone)**
- **Orders (OrderID, CustomerID, EmployeeID, OrderDate, ShippedDate, ShipperID)**
- **Employees (EmployeeID, LastName, FirstName)**
- **Shippers (ShipperID, ShpperName)**

Suppliers

SupplierID	CompanyName	ContactLastName	ContactFirstName	Phone
1	Amazon	Hamilton	Laurell	605-145-1875
2	Ebay	Koontz	Dean	605-244-1104
3	Booksamillion	Roberts	Nora	916-787-3320
4	University	Carter	Stephen	916-412-2004

Books

BookID	Title	Unit_ Price	Author	Unit_in_Stock	SupplierID	SubjectID
1	The Quickie	15.94	James	5	3	1
2	Blaze	13.24	Richard	2	3	1
3	The Navigator	14.01	Clive	10	2	1

4	**Birmingham**	**19.99**	**Tim**	**12**	**3**	**2**
5	**North Carolina Ghosts**	**7.95**	**Lynne**	**5**	**2**	**2**
6	**Why I still live in Louisiana**	**5.95**	**Ellen**	**30**	**1**	**3**
7	**The World Is Flat**	**30**	**Thomas**	**17**	**3**	**4**

Subjects

SubjectID	**CategoryName**
1	**Fiction**
2	**History**
3	**Travel**
4	**Technology**

Employees

EmployeeID	**LastName**	**FirstName**
1	**Larson**	**Erik**
2	**Steely**	**John**

Shippers

ShipperID	**ShipperName**
1	**UPS**
2	**USPS**
3	**FedEx**

Customers

CustomerID	**LastName**	**FirstName**	**Phone**
1	**Lee**	**James**	**916-541-4568**
2	**Smith**	**John**	**916-057-0087**
3	**See**	**Lisa**	**605-054-0010**
4	**Collins**	**Jackie**	**605-044-6582**

Orders

OrderID	CustomerID	EmployeeID	OrderDate	ShippedDate	ShipperID
1	1	1	08/01/21	08/03/21	1
2	1	2	08/04/21	NULL	NULL
3	2	1	08/01/21	08/03/21	2
4	4	2	08/04/21	08/05/21	1

OrderDetails

BookID	OrderID	Quantity
1	1	2
4	1	1
6	2	2
7	2	3
5	3	1
3	4	1
4	4	1
7	4	1

3. SQL Queries (One SQL statement per query)

Write ONE SQL statement for each of the following queries. Then, you execute them against your database to get the query results.

1. (6 pts) Show me the titles of all the books which have more than 5 units in stock.
2. (6 pts) Show me the total price John Smith has paid for the books.
3. (6 pts) Show me the name of the customer who has paid less than $20 in totals.
4. (6 pts) Show me the names of all the books shipped on 08/05/21 and their shippers.
5. (6 pts) Show me the names of all the books John Steely was responsible for.
6. (6 pts) Show me the total price each customer paid and their names. List the result in the descending price.

7. (6 pts) Show me the unique names of all the books John Smith and Jackie Collins ordered.
8. (6 pts) Show me the names of all the ordered books and their total quantities. List the result in the ascending quantity.
9. (6 pts) Show me the names of the customers who ordered at least a book whose name includes "Louisiana".
10. (6 pts) Show me the name of the customer who has ordered at least one book written by Thomas.
11. (8 pts) Show me the name of the customer who has ordered at least a "Fiction" book or a "Travel" book and the book names.
12. (8 pts) Show me the name of each category and the cheapest price of the books in that category.
13. (8 pts) Show me the book names and their corresponding total quantities that are in the open orders (the orders which have not been shipped or have no shipped date available) as of 08/04/21.
14. (8 pts) Show me the names of customers who have ordered multiple (more than 1) books and the corresponding quantities. List the result in the descending quantity.
15. (8 pts) Show me the names of customers who have ordered multiple (more than 1) books and their respective telephone numbers.

4. Materials to Hand In

A doc/pdf file that includes SQL statements and the corresponding query results for all the 15 queries. Number them accordingly.

Notice:

- A query with result only but without SQL statement will receive zero point
- For each SELECT statement, qualify column name with table name.

The file should be submitted individually on Canvas before

Sunday April 3, 2022, at 11:59 pm

NO late submissions will be accepted.