Final Project  
CS6325  
Fall 2014

Please design and create a Database Management System for an online book store in your mysql account on erdos.dsm.fordham.edu.

A. A customer of the store should register to purchase a book. To register, customers should provide information of full name, gender, birth date, email address, delivery address, contact phone number(s). The customer also should provide one or more payment methods, such as debit card(s), credit card(s), bank account(s). Debit card and credit card should have information of card holder, card number, expiration date, contact phone number, and billing address. Each bank account should have account holder info, account type (checking or saving), account number and bank name. After registration each customer will have a unique customerid, username and password.

B. The books of the store is divided into several sections, such as Sciences, Arts, Children, and so on. Each book belongs to a section, has a title, authors, ISBN, price, edition, year and publisher. For each book, keep track of its current inventory. Every author has full name and an author could have written one or more books.

C. Customer can purchase one or more books in different quantities, and all books the customer purchases are put into his/her shopping cart. When the customer decides to checkout, an order is generated. Based on the quantity and price of books in the shopping cart, the charge of the order is also generated. Each order belongs to a customer and associates with a shopping cart and a payment method is required to complete the order.
The following information is some instances of customers, books and so on.

**Books**

Book ISBN: 0-8053-1755-4  
Title: Fundamentals of Database Systems, 3\(^{rd}\) edition  
Authors: Ramez A. Elmasri and Shamkant Navathe  
Year and Publisher: 2000, Addison Wesley  
Price: $100.00  
Section: Sciences  
Inventory: 20

Book ISBN: 978-0-12-374856-0  
Title: Data Mining, Practical Machine Learning Tools and Techniques, 3\(^{rd}\) edition  
Authors: Ian H. Witten, Eibe Frank, and Mark Hall  
Year and Publisher: 2011, Elsevier  
Price: $120.00  
Section: Sciences  
Inventory: 25

Title: Writing Skills  
Authors: Matt Florence  
Year and Publisher: 2010, Addison Wesley  
Price: $30.00  
Section: Arts  
Inventory: 10

Book ISBN: 978-0-07-246563-1  
Title: Database Management Systems, 3\(^{rd}\) edition  
Authors: Raghu Ramakrishnan and Johannes Gehrke  
Year and Publisher: 2003, McGraw-Hill  
Price: $110.00  
Section: Sciences  
Inventory: 15
Customers:
Customerid:      00001
Username:        xxyy
Password:        0808
Name:            Tom Hunks
Birth date:      12/1/1990
Gender:          M
Email address:   thunks@yahoo.com
Delivery address: 1100 Grand Road, New York, NY 10001
Phone number:    212-400-0001 (Home), 212-100-2222 (Cell)
Payment method:  Credit card
                 Holder:   Tom Hunks
                 Card #:   9999 9999 8888 8888
                 Expiration Date: 08/17
                 Phone Number:  212-400-0001
                 Billing Address: 1100 Grand Road, New York, NY 10001
Bank Account:
               Holder:   Tom Hunks
               Account #: 1112223
               Account Type: Checking
               Bank Name:  Chase

Books in his shopping cart on 11/24/14:
1 copy of “Data Mining, Practical Machine Learning Tools and Techniques”
2 copies of “Database Management Systems”
1 copy of “Writing Skills”

*He would like to pay with his checking account.
Customerid: 00002
Username: xzzz
Password: 11223
Name: Tom Cruise
Birth date: 10/1/1991
Gender: M
Email address: tcruse@yahoo.com
Delivery address: 441 East Fordham Road, Bronx, NY 10458
Phone number: 718-817-3333 (Cell)
Payment method:
   Credit card
      Holder: Tom Cruise
      Card #: 2222 4444 5555 6666
      Expiration Date: 12/14
      Phone Number: 718-817-3333
      Billing Address: 441 East Fordham Road, Bronx, NY 10458

Books in his shopping cart on 11/23/14:
1 copy of “Data Mining, Practical Machine Learning Tools and Techniques”
1 copy of “Database Management Systems”
1 copy of “Writing Skills”

*He would like to pay with his credit card.
Customerid: 00003
Username: abcde
Password: xyz123
Name: Tina Fei
Birth date: 12/1/1956
Gender: F
Email address: tfei11@yahoo.com
Delivery address: 442 Fordham Road, Bronx, NY 10458
Phone number: 817-718-0001 (Work), 212-100-2234 (Cell)
Payment method: Debit card
   Holder: Tina Fei
   Card #: 1234 1234 5678 5678
   Expiration Date: 10/18
   Phone Number: 817-718-0001
   Billing Address: 442 Fordham Road, Bronx, NY10458
Bank Account:
   Holder: Tom Fei
   Account #: 12667
   Account Type: Checking
   Bank Name: Capital One

Books in her shopping cart on 12/1/14:
1 copy of “Data Mining, Practical Machine Learning Tools and Techniques”
1 copy of “Database Management Systems”
1 copy of “Writing Skills”
1 copy of “Fundamentals of Database Systems”

*She would like to pay with her debit card.
Customerid: 00004
Username: iama
Password: 34ii
Name: Rice Brown
Birth date: 12/1/1970
Gender: F
Email address: rbrown1999@hotmail.com
Delivery address: 383 56th Street, New York, NY 10002
Phone number: 212-0001-7788 (Cell)
Payment method:
  Credit card
    Holder: Rice Brown
    Card #: 1122 3344 5566 7788
    Expiration Date: 1/16
    Phone Number: 212-0001-7788
    Billing Address: 38 56th Street, New York, NY 10002

Books in her shopping cart on 11/24/14:
1 copy of “Data Mining, Practical Machine Learning Tools and Techniques”
1 copy of “Database Management Systems”
2 copies of “Writing Skills”
1 copy of “Fundamentals of Database Systems”

*She would like to pay with her credit card.
Customerid: 00005
Username: lisaw
Password: 8877
Name: Lisa Warren
Birth date: 12/1/1972
Gender: F
Email address: lisawarren@gmail.com
Delivery address: 1 Fordham Road, Bronx, NY 10458
Phone number: 212-300-1199 (Cell), 212-300-7777 (Home)
Payment method:
   Credit card:
       Holder: Lisa Warren
       Card #: 1111 2222 3333 4444
       Expiration Date: 1/17
       Phone Number: 212-300-1199
       Billing Address: 1 Fordham Road, Bronx, NY 10458
   Bank Account:
       Holder: Lisa Warren
       Account #: 9922882
       Account Type: Checking
       Bank Name: Chase

* She does not have any book in her cart.