Worksheet – 05 SQL

1. What are the referential integrity constraints that should hold on the schema?

Everything except OrderPayment, OrderItem, CartItem, InventoryOrder, since every other entity has at least one foreign key pointing to it.

2. What tables do you think should be included? What fields? Provide a copy of your relational diagram from Worksheet 04 (or an updated version if you have changed it since then).

Tables:

Everything but Cart, CartItem, Order, OrderPayment, User, Book, Billing, Inventory.

Attributes:

The foreign key referencing the table will follow '*_id", and id will be the key of the table that is being referenced.

[See attachment 1]

3. Write appropriate SQL DDL statements to define the database.

[See attachment 2]

4.

Worksheet – 05 More SQL

Specify the following queries and show a sample results for the database.

1. Find all of the books by Pratchett that cost less than $10

   a) SQL

SELECT B.title, B.isbn FROM Book AS B, Author as A WHERE B.price<10 AND A.name='Terry Patchett' AND B.author_id=A.id;

   b) Sample Result

61092177	Small Gods
60502935	Going Postal
61020656	Pyramids
60855925	The Color of Magic
61020648	Guards! Guards!

2. Give all of the titles and dates for purchases made by a particular customer.

   a) SQL

SELECT B.title, O.date_created FROM Book AS B, Order AS O, OrderItem AS OI User as U WHERE O.user_id=U.id AND OI.order_is=O.id AND OI.book_id=B.id AND U.id=1;

   b) Sample Result

The Demon-Haunted World: Science	1/1/2001
Cosmos	2/2/2002
Broca's Brain: Reflections on the Rom	3/3/2003
Contact	4/4/2004
Pale Blue Dot: A Vision of the Human	5/5/2005

3. List all of the books with less than 5 quantity in stock.

   a) SQL

SELECT B.title FROM Book AS B JOIN Inventory AS I ON (I.id=B.id) WHERE I.quantity<5;

   b) Sample Result

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