A used-book store has been in business for over a month. The owners have been so busy that they have not had time to design and implement a computer-based system to track their operation. They would like to build a database system to help the business.

You are hired to design, program, and implement a database to help this bookstore.

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This is the relevant data for the first month of operation. The owners have saved the information in an Excel file. You might want to take the data into consideration when you design the database.

**Inventory Data**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Product ID** | **Product Name** | **Unit Price** | **Cost as  % of Price** | **Current  Inventory** | **Monthly  Purchases** |
| 40 | Little Prince | $35 | 50% | 20 | 3 |
| 42 | War and Peace | $45 | 50% | 14 | 2 |
| 44 | The Emperor's New Clothes | $40 | 50% | 12 | 0 |
| 46 | For Whom the Bell Tolls | $35 | 50% | 10 | 2 |
| 48 | Pride and Prejudice | $25 | 50% | 5 | 0 |
| 50 | Pinocchio | $35 | 60% | 5 | 0 |
| 52 | Canterbury Tales | $40 | 60% | 10 | 0 |

**Sales Data**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Trans ID** | **P.O. Number** | **Product ID** | **Trans Code** | **Date** | **Customer ID** | **Units Sold** | **Cashier** |
| 1 | 393432 | 42 | 2 (credit card) | 1/10/15 | 4269 | 3 | Jason |
| 2 | 234321 | 40 | 2 | 1/11/15 | 8934 | 2 | Mary |
| 3 | 557842 | 50 | 2 | 1/12/15 | 5519 | 2 | Jason |
| 4 | 337891 | 46 | 1 (check) | 1/14/15 | 6598 | 3 | Berry |
| 5 | 198142 | 48 | 2 | 1/14/15 | 1096 | 2 | Berry |
| 6 | 221244 | 40 | 1 | 1/15/15 | 4269 | 1 | Jason |
| 7 | 1112 | 40 | 1 | 1/18/15 | 3314 | 2 | Amy |
| 8 | 414125677 | 42 | 2 | 1/20/15 | 6539 | 2 | Jason |
| 9 | 2343112 | 46 | 2 | 1/24/15 | 4456 | 1 | Amy |
| 10 | 343411 | 40 | 1 | 1/28/15 | 5519 | 1 | Mary |

**Your task is to:**

* Discuss the kinds of data needed for such a system (attributes), and the data types of these attributes.
* Create a PowerPoint presentation to explain how you would design the database system, focusing on the tables you will create in this database, the attributes of each table, and the primary keys of each table to address the requirements of the store owners.
* Please discuss how you will use entity integrity and referential integrity