

Fundamentals of Relational Database Systems

Homework 4

A local clothing store warehouses items it buys from various vendors. They can order the same item from different vendors and they often order several different items from the same vendor.

Given the following data about the clothing store...

<u>Clothes they sell</u>	<u>Purchase orders to their suppliers</u>	<u>Their suppliers</u>
SKU (part number)	Supplier	Name
Description	List of SKUs being purchased	Address
Retail Price	Quantity for each SKU	City
Discount level 1	Purchase price for each SKU	State
Discount level 2	Purchase Order (PO) Number	Zip
Cost	PO date, PO terms, PO comments	Payment Terms
Quantity on hand		

... and any fields you want to add ...

Create a database that is in BCNF. Deliverables:

[10 points each]

1. Produce a fully annotated, aesthetically beautiful, and painstakingly orderly E/R diagram.
2. Write and test the SQL create statements. Be complete.
3. List all functional dependencies.
4. Write a paragraph or two proving that your design is indeed in BCNF.
5. Using Postgres, develop and test a stored procedure to calculate how many of a passed-in SKU are available to be sold. The amount available to be sold is defined as the amount currently on hand plus the amount on order. Use the handouts from class to get the stored procedure syntax for SQL Server.