SFWRTECH 3RQ3: Software Requirements and Speciﬁcations (Due: 17/11/2020)

Assignment #5

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You have been tasked to build an inventory tracking system for a grocery store. It will reduce inventory of a particular item when it is purchased by a customer and increase the inventory when a new order has arrived. It will also track the price that each item has sold for as this store often has various sales on different products.

Your task is to find a set of classes that can adequately describe this system based on the description given above and the use case diagram given.

Answer:

|  |  |
| --- | --- |
| Noun | Noted on including or excluding as a thing to store |
| Inventory | Is it equal to grocery; research |
| Tracking | We know what is tracking; exclude |
| System | We know what system is; exclude |
| Grocery | it includes all items; include |
| Store | Only 1 store and no need to store; exclude |
| Item | Grocery is made of many items; an item is an instance |
| Customer | a key thing with a lot of attributes; include |
| Order | A key thing with a lot of requirements for managers; include |
| price | The price depends on items as attributes for itmes |
| sales | A key thing with a lot of attribute for customers; include |
| Products | Same as items? Research |
| staff | A key thing like a customer; include |
| Store manager | A key thing like a customer; include |
| Shelf | Inputs for items and can be used as attributes for items |
| Stock | Same as inventory? Research |

Using noun technique, we can sum up the classes: customer, staff, manager, orders, sales; items and grocery. The relationship is as follows:

Customer, staff, and manager are instances of users.

Items are instances of grocery.

Orders and sales have items.

Q2:

Based on the results of the noun technique that you carried out in problem 1, draw a class diagram to model the data requirements for this system. Assume that any nouns marked as research in problem 1 have been found to be included in the system. Remember to use both “is a” and “has a” relationships where appropriate.

A screenshot of a computer

Description automatically generated