Ben-Gurion University
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Inventory

Diagrams and Requirements specification

Submitters:

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Functional And Non-Functional Requirements

No.	Category	Description	Implemented	Priority	Risk	Type
1.	Inventory management	The system MUST support storing all the inventory currently in stock.	Yes	MH	L	F
2.	Inventory management	The System MUST give accurate inventory status to the user	Yes	MH	H	NF
3.	Inventory management	The system MUST hold the following parameter for each item in the inventory: Item location, Item manufacturer, current available amount of the item (separated to currently available on shelves and currently available on depot).	Yes	MH	L	F
4.	Inventory management	The system MUST preserve all information on every discount given for every item.	Yes	MH	L	F
5.	Inventory management	The system MUST keep track on the cost price and selling price for each item in the inventory.	Yes	MH	L	F
6.	Inventory management	The system SHOULD enable giving discounts on specific items or specific categories.	Yes	MH	L	NF
7.	Inventory management	The system MUST enable storing all the item details by categories	Yes	MH	L	F
8.	Inventory management	The system MUST enable producing reports about the inventory situation by each category	Yes	MH	L	F

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9.	Inventory management	The system MUST notify on product that about to go out of stock	Yes	MH	L	F
10.	Inventory management	The system MUST track damaged items or date expired items and produce periodic report about them	Yes	MH	H	NF
11.	User interaction	The menus of the system MUST be easily navigable by the users with buttons that are easy to understand.	Yes	NTH	H	NF
12.	Inventory management	the inventory workers should be able to search for items in the inventory by entering keywords in the search field	Yes	NTH	L	F
13.	Inventory management	When search results are displayed a worker SHOULD be able to ask the supplier if he got this item in his inventory	No, currently we do not have access to the supplier inventory.	NTH	L	F
14.	Inventory management	The system MAY support storing description about each item	Yes	NTH	L	F
15.	Inventory management	The system SHOULD notify on system start up about expired items details and their location	Yes	NTH	L	F
16.	Inventory management	The system SHOULD move expired products automatically on connection from current store inventory to expired products section.	YES	NTH	L	F

Open questions

| #	Topic	Issue
1.	Damaged items	Who decide what is damaged item?
2.	Renew inventory	Who is in charge to renew the inventory?
3.	Inventory limitation	There is a limit on the number of the items that the system needs to store?
4.	discounts	Do the system limit the selling price to cost price ratio, meaning selling price should always be higher then cost price? (including given discounts)
5.	Statistics	Do the system need to store statistics analysis on subjects such as most selling items, items with short expiration date (expires quickly), etc.
6.	Product categories	Who decide which categories to assign to every product and what is the hierarchy of that category to the product.
7.	Sorting information	By what attribute the items should be sorted in the system?

Questions for the customer

#	Question	Answer of the customer
1.	How the system should print the warnings about the lack of the inventory?	The system should print a message to the command line.
2.	The system should store all the prices history for specific item?	There is no need to preserve price history, only the current cost and selling price
3.	How much categories should the system store?	The user can add or edit the categories, that means that there is no max number of categories that the system should store.
4.	What is the location of the item means?	The location of the item is where the item should be stored on the shelfs in the store and in the warehouse.
5.	What the inventory reports includes?	The amount of each item in warehouse and the amount on shelfs.
6.	What the periodic damaged item report includes?	what items are damaged or expired and the amount of them.
7.	The discounts are specific for each branch or the discounts are global for all branches?	The discounts are for all the branches of the store. thus, they are globally defined for each product in all the stores, and not for specific branch.
8.	How the system gets the minimal amount (because it depends on the supply time and the demand) for specific item?	The system user will write the minimal amount when he inserts a new product to the system.
9.	The system should preserve information on previous ended discounts?	Yes, the system will keep track of all past discounts given by the store or given to the store by the supplier.

#	Question	Answer of the customer

UML Class Diagram – Inventory Module
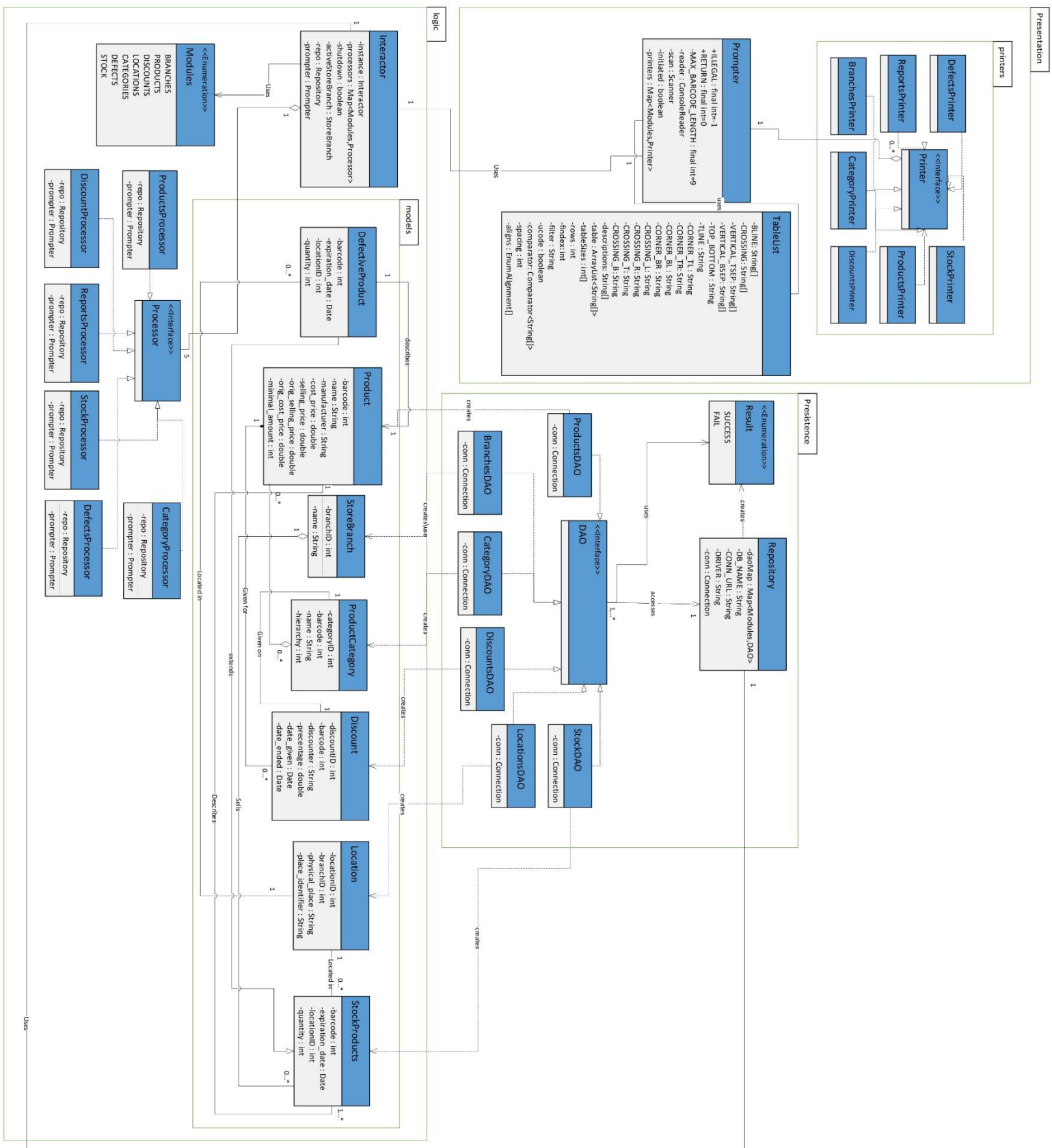
Database ERD – Inventory Module
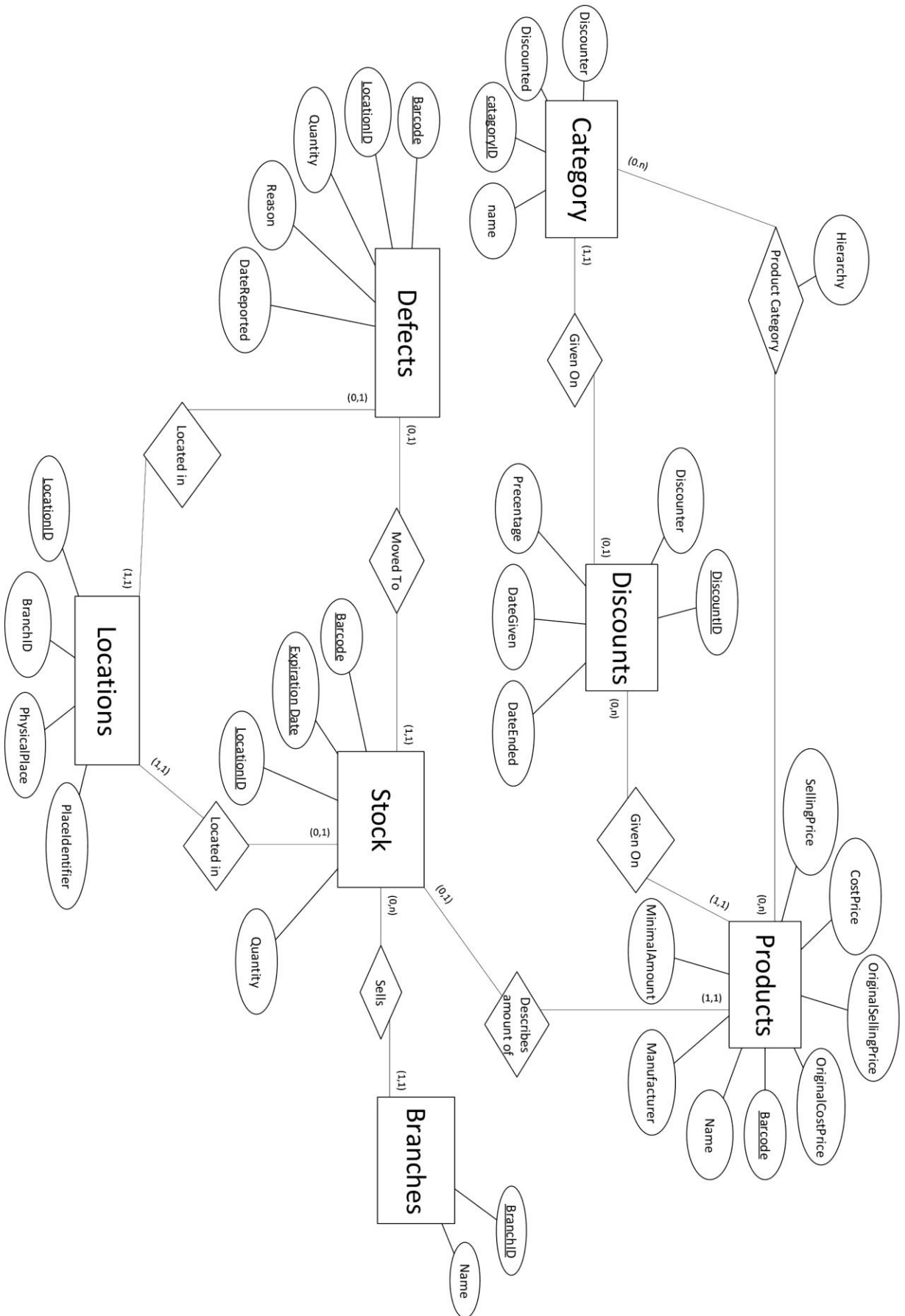
Object Diagrams – Inventory Module

Scenarios Description:

The diagrams described below are presented in the two following pages 9-10.

Object Diagram 1:
The represented diagram describes a scenario where the end-user supplied the system with 3 products to be available to add to the current active branch stock.
The three products are: Yogurt, Cheese and Milk.
The products described above are entered with the corresponding prices of 10, 20 and 40 dollars.
The user opened a corresponding category (Dairy) that is assigned to the 3 newly added products.
Than the system user chooses to add the 3 products to stock and therefore 3 Stock Products objects are created with 3 new Location objects that describes the location of the products in the store.
The user chooses to discount the "Dairy" category by 20 %.
A Discount object is created, and the three products prices are decreases by 20% accordingly and now contain the three updated corresponding prices of 8, 16 and 32 dollars.

Object Diagram 2:
The represented diagram describes a scenario where the end-user supplied the system with one product, Tomatoes, to be available to add to the current active branch stock.
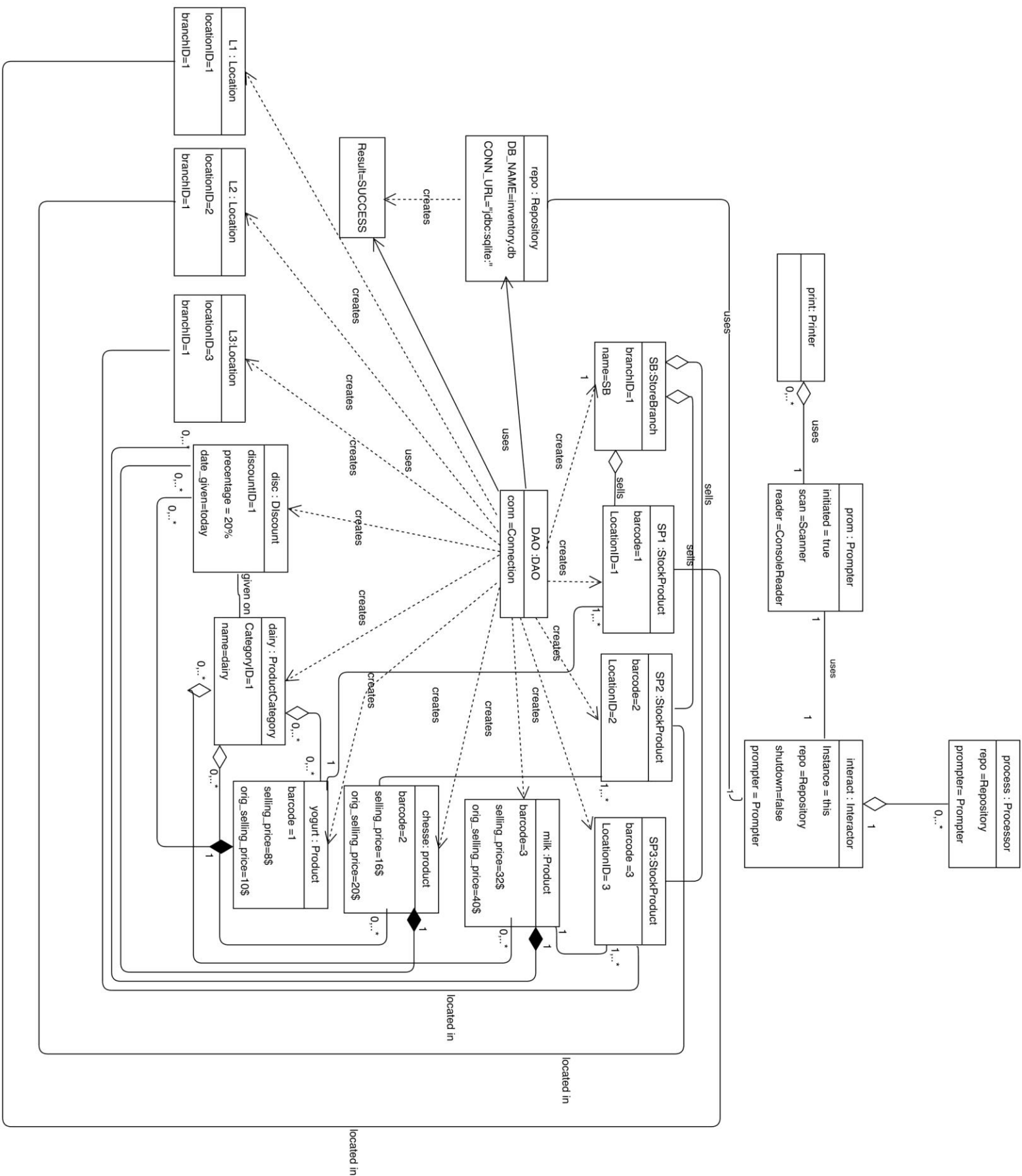The user opened a corresponding category (Vegetables) that is assigned to the added product.
Than in the date 28/03/19 the system user chooses to add to stock 1 tomato and therefore A Stock Product object is created with A new Location object that describes the location of the tomato in the store, the tomato added with the expiration date 03/04/19.
The user logs to the system again in the date 04/04/19 and can see that the tomato he added to stock in 28/03/19 is now expired since it originally had the expiration date 03/04/19. The user is notified with the appropriate automated message.
A Defective Product object is created with the details of the tomato and it is removed from the stock and is now in the defective products section.

Object Diagram 1:

Object Diagram 2: