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Final Project Requirements

My final project will be working with a sporting goods store. The problem with the sporting goods store is that their current inventory system is very random. Their current inventory system is just one big list of everything they have in the store in the format of Category, Item Name, and the cost of each good. I will be developing a system to help this store become more organized. This store also has problems with keeping track of customers and their orders. I will calculate profits for each order and also keep track of top customers. Lastly, this program will keep track of company cash flow and make sure we do not dip down into the negatives when buying more product.

**Requirements of the System:**

1. **Take in one big file of inventory and sort it out by Sporting category. The inventory should be sorted in ascending order by price. Assign an item number to each item.**
2. **Take in a list of customers and their orders from a file. Calculate and track profit from the sales, as well as update the inventory files after the orders have been placed.**
3. **Keep track of top customers. Assign a customer ID to customers for easier tracking. Create a text file with a list of our biggest buyers ($10,000+ in spending. This number is subject to change).**
4. **Track companies cash flow. Do not allow any more purchases if the company hits a negative cash balance. (Possibly add the ability to borrow money if the company hits a negative balance, TBD).**

Ultimately, I want this project to provide a better system for this fictional sporting goods store to track their inventory and sales.

**Assumptions Made:**

1. **That manufacturing overhead costs and any other product costs are already included on the inventory sheet.**
2. **Company is starting out with $100,000 in cash.**

**UML Diagrams:**

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