Assumptions Made:

-Although not proper microservice architecture, a single data store was used for these services to keep things simple. In a large vending machine operation, we would break the data store into individual stores for items, inventory, and sales. This would allow the individual services to be deployed separately and make the entire system more maintainable.

-Did not include authentication but of course a production system would require this. If this were going to be deployed to Azure, I would make use of Azure AD and Azure APIM to ensure users were authenticated before using the API.

-The quantity in stock is attached to the item but this would never do in a production system. The quantity would be separated into a transactions table that would keep track of inventory so you could calculate LIFO, FIFO, or Average price.