E-commerce Inventory Management System

Imagine you're working for an e-commerce startup that's rapidly growing and facing challenges managing its inventory. Your manager wants a structured system to efficiently organize and handle various types of products - both physical goods (such as electronics, clothing, home accessories, and beauty items) and digital products (like downloadable content or digital licenses).

The company needs a solution that:

- Clearly categorizes products based on their types and attributes.

- Allows products to have discounts applied easily during promotions or seasonal sales.

- Supports easy filtering of products, such as finding all digital products or all products within a specific category (e.g., electronics).

- Provides quick insights, such as calculating the total inventory value to assist with accounting and financial projections.

Your task is to design and build a flexible inventory management system that addresses these requirements and can be easily maintained and extended as the business continues to grow.