

CLAIMSWhat is claimed is:

1. A computer-implemented system for intelligent distribution of products, the system comprising:
a memory storing instructions; and
at least one processor configured to execute the instructions for:
receiving an order quantity for a product from a system determining
optimal order quantities for products based on demand forecast
data;
prioritizing the order quantity based on actual constraints; and
assigning the prioritized order quantity to one or more locations.
2. The computer-implemented system of claim 1, wherein prioritizing the order quantity comprises utilizing a set of rules.
3. The computer-implemented system of claim 2, wherein the set of rules comprises an assignment of a predefined quantity of the product to predetermined locations having the capacity to handle volumes more than a predefined quantity.
4. The computer-implemented system of claim 1, wherein prioritizing the order quantity comprises utilizing a logistical regression model to prioritize the order quantity using actual constraints.

5. The computer-implemented system of claim 1, wherein the constraints comprise a capacity of location to receive the product and a popularity of the product, wherein the popularity of the product is determined by demand forecast data associated with the product or outbound shipments of the product.
6. The computer-implemented system of claim 1, wherein the locations comprise predetermined fulfillment centers with capabilities to handle large volumes of the product.
7. The computer-implemented system of claim 1, wherein the assigned order quantity is further assigned to different regions associated with the predetermined locations.
8. The computer-implemented system of claim 1, wherein assigning the prioritized order quantity comprises:
assigning the prioritized order quantity to locations based on current product inventory levels;
determining an exceeded amount of quantities over an intake capacity of a first location; and
transferring the exceeded amount of quantities to one or more remaining locations.

9. The computer-implemented system of claim 8, wherein transferring the exceeded amount of quantities to the remaining locations comprises transferring the exceeded amount of quantities in equal amounts across remaining locations.
10. The computer-implemented system of claim 1, wherein the instructions further comprise generating purchase orders to a supplier associated with the product based on the assigned order quantity.
11. A computer-implemented method for intelligent distribution of products, the system comprising:
receiving an order quantity for a product from a system determining optimal order quantities for products based on demand forecast data;
prioritizing the order quantity based on actual constraints; and
assigning the prioritized order quantity to one or more locations.
12. The method of claim 11, wherein prioritizing the order quantity comprises utilizing a set of rules.
13. The method of claim 12, wherein the set of rules comprises an assignment of predefined quantity of the product to predetermined locations with capabilities to handle volumes more than a predefined amount.

14. The method of claim 11, wherein prioritizing the order quantity comprises utilizing a logistical regression model to prioritize the order quantity using actual constraints.
15. The method of claim 11, wherein the actual constraints comprise a capacity of location to receive the product and a popularity of the product, wherein the popularity of the product is determined by demand forecast data associated with the product or outbound shipments of the product.
16. The method of claim 11, wherein the locations comprise predetermined fulfillment centers with capabilities to handle large volumes of the product.
17. The method of claim 11, wherein the assigned order quantity is further assigned to different regions associated with the predetermined locations.
18. The method of claim 11, wherein assigning the prioritized order quantity comprises:
 - assigning the prioritized order quantity to locations based on current product inventory levels;
 - determining an exceeded amount of quantities over an intake capacity of a first location; and
 - transferring the exceeded amount of quantities to one or more remaining locations.

19. The computer-implemented system of claim 1, wherein the instructions further comprise generating purchase orders to a supplier associated with the product based on the assigned order quantity across remaining locations.
20. A computer-implemented system for intelligent distribution of products, the system comprising:
 - a memory storing instructions; and
 - at least one processor configured to execute the instructions for:
 - receiving one or more demand forecast quantities of one or more products, the products corresponding to one or more product identifiers, and the demand forecast quantities comprising a demand forecast quantity for each product for each unit of time;
 - receiving supplier statistics data for one or more suppliers, the suppliers being associated with a portion of the products;
 - receiving current product inventory levels and currently ordered quantities of the products;
 - determining order quantities for the products based at least on the demand forecast quantities, the supplier statistics data, and the current product inventory levels;
 - prioritizing the order quantities based on actual constraints;
 - assigning the prioritized order quantities to one or more locations; and
 - generating purchase orders to the suppliers for the products based on the assigned order quantities.