CLAIMS

What is claimed is:

1. A computer-implemented system for efficient distribution of orders based on system parameters, the system comprising:

a memory storing instructions; and

at least one processor configured to execute the instructions for:

aggregating one or more orders comprising one or more quantities of a plurality of items;

assigning a subset of the items to a batch, wherein the items are assigned to one or more batches;

determining one or more parameters of a transporting system for the batches;

determining at least one of location or orientation of the items in the transporting system based on the parameters of the transporting system; and

transmitting, to a user device for display, the parameters of the transporting system.

2. The computer-implemented system of claim 1, wherein aggregating the orders comprises at least one of:

aggregating the orders over a predetermined period of time;

aggregating the orders until a user input is received; or

aggregating the orders based on a number of available workers.

3. The computer-implemented system of claim 1, wherein assigning the subset of the items to the batch comprises assigning a first item to the batch based on at least one of location of the first item, dimensions of the first item, and a combined weight of the subset of the items.

4. The computer-implemented system of claim 1, wherein the parameters comprise at least one of a type of a container included in the transporting system; a number of the container included in the transporting system; and a carrying capacity of the transporting system.

5. The computer-implemented system of claim 1, wherein a combined weight of the subset of the items is less than a carrying capacity of the transporting system.

6. The computer-implemented system of claim 1, wherein the transporting system comprises one or more containers each having a weight capacity and a volume capacity.

7. The computer-implemented system of claim 6, wherein assigning the subset of the items to the batch comprises:

assigning a portion of the subset of the items to a first container, wherein the subset of the items is assigned to one or more containers based on the weight capacity and the volume capacity.

8. The computer-implemented system of claim 7, wherein a total weight or a total volume of the portion of the subset of the items assigned to the first container is less than the weight capacity and the volume capacity of the first container by a predetermined ratio.

9. The computer-implemented system of claim 1, wherein the instructions further comprise transferring the batches from a first location to a second location using an automated transporting system.

10. The computer-implemented system of claim 9, wherein assigning the subset of the items to the batch is based on a weight capacity of the automated transporting system.

11. A computer-implemented method for efficient distribution of orders based on system parameters, the method comprising:

aggregating one or more orders comprising one or more quantities of a plurality of items;

assigning a subset of the items to a batch, wherein the items are assigned to one or more batches

determining one or more parameters of a transporting system for the batches;

determining at least one of location or orientation of the items in the transporting system based on the parameters of the transporting system; and

transmitting, to a user device for display, the parameters of the transporting system.

12. The computer-implemented method of claim 11, wherein aggregating the orders comprises at least one of:
aggregating the orders over a predetermined period of time;
aggregating the orders until a user input is received; or
aggregating the orders based on a number of available workers.

13. The computer-implemented method of claim 11, wherein assigning the subset of the items to the batch comprises assigning a first item to the batch based on at least one of location of the first item, dimensions of the first item, and a combined weight of the subset of the items.

14. The computer-implemented method of claim 11, wherein the parameters comprise at least one of a type of a container included in the transporting system; a number of the container included in the transporting system; and a carrying capacity of the transporting system.

15. The computer-implemented method of claim 11, wherein a combined weight of the subset of the items is less than a carrying capacity of the transporting system.

16. The computer-implemented method of claim 11, wherein the transporting system comprises one or more containers each having a weight capacity and a volume capacity.

17. The computer-implemented method of claim 16, wherein assigning the subset of the items to the batch comprises:

assigning a portion of the subset of the items to a first container, wherein the subset of the items is assigned to one or more containers based on the weight capacity and the volume capacity.

18. The computer-implemented method of claim 17, wherein a total weight or a total volume of the portion of the subset of the items assigned to the first container is less than the weight capacity and the volume capacity of the first container by a predetermined ratio.

19. The computer-implemented method of claim 11 further comprising transferring the batches from a first location to a second location using an automated transporting system, wherein assigning the subset of the items to the batch is based on a weight capacity of the automated transporting system.

20. A computer-implemented system for efficient distribution of orders based on system parameters, the system comprising:

a memory storing instructions; and

at least one processor configured to execute the instructions for:

aggregating one or more orders comprising one or more quantities of a plurality of items;

assigning a first subset of the items to a first batch, wherein the items are assigned to one or more batches;

determining one or more parameters of a transporting system for the first batch;

determining at least one of location or orientation of the first set of items in the transporting system based on the parameters of the transporting system;

transmitting, to a user device for display, the parameters of the transporting system;

receiving, from the user device, a first item identifier associated with a first item among the first subset of items; and

transmitting, to the user device for display in response to the first item identifier, at least one of the location or the orientation of the first item as placed in the transporting system.