

CLAIMS

What is claimed is:

1. A computer-implemented system for providing stowing location recommendation, the system comprising:
a memory storing instructions; and
at least one processor configured to execute the instructions to:
receive, from a user device associated with a user, a request for a location recommendation for stowing at least one inbound product, wherein the request comprises a zone associated with the at least one inbound product;
determine a plurality of locations to recommend within the zone, the plurality of locations being configured to store the at least one inbound product, wherein:
the plurality of locations are empty, and
the plurality of locations have not been recommended to another user different from the user;
sample, based on a predetermined rule, a number of locations from the plurality of locations for stowing the at least one inbound product;
display, via the user device, the sampled number of locations to the user for stowing the at least one inbound product, wherein the predetermined rule comprises at least one of:
a first restriction on a number of stock keeping units (SKUs) that can be stored in each location,

a second restriction on an expiration date associated with each SKU,
a third restriction on a barcode associated with each SKU, or
a fourth restriction on a risk level associated with each SKU;

receive, from the user device, a selection of a stowing location among the sampled number of locations; and
modify a database to assign a location identifier associated with the selected stowing location to the inbound product.

2. The system of claim 1, wherein the plurality of locations are at least 30%, 50%, or 70% empty.
3. The system of claim 1, wherein the zone comprises at least one of a picking zone or a buffer zone.
4. The system of claim 3, wherein the picking zone is configured to store inbound products that are available for purchase by a customer.
5. The system of claim 3, wherein buffer zone is configured to store inbound products that are not available for purchase by a customer.

6. The system of claim 1, wherein, the at least one processor is configured to execute the instructions to provide a recommendation, based on the first restriction, to store a maximum of three different SKUs in each location.
7. The system of claim 1, wherein the at least one processor is configured to execute the instructions to prevent, based on the second restriction, a first inbound product associated with a first SKU having a first expiration date from being stored with a second inbound product associated with the first SKU having a second expiration date.
8. The system of claim 1, wherein the at least one processor is configured to execute the instructions to prevent, based on the third restriction, a first inbound product associated with a first SKU having a first barcode from being stored with a second inbound product associated with the first SKU having a second barcode.
9. The system of claim 1, wherein the at least one processor is configured to execute the instructions to provide, based on the fourth restriction, a recommendation to store SKUs having risk levels higher than a predetermined threshold separately.
10. The system of claim 1, wherein the at least one processor is configured to execute the instructions to provide, based on the fourth restriction, a recommendation to store SKUs having risk levels lower than a predetermined threshold in a particular location.

11. A computer-implemented method for providing stowing location recommendation, the method comprising:
- receiving, from a user device associated with a user, a request for a location recommendation for stowing at least one inbound product, wherein the request comprises a zone associated with the at least one inbound product;
 - determining a plurality of locations to recommend within the zone, the plurality of locations being configured to store the at least one inbound product, wherein:
 - the plurality of locations are empty, and
 - the plurality of locations have not been recommended to another user different from the user;
 - sampling, based on a predetermined rule, a number of locations, among the plurality of locations, for stowing the at least one inbound product;
 - displaying, via the user device, the sampled number of locations to the user for stowing the at least one inbound product, wherein the predetermined rule comprises at least one of:
 - a first restriction on a number of stock keeping units (SKUs) that can be stored in each location,
 - a second restriction on an expiration date associated with each SKU,
 - a third restriction on a barcode associated with each SKU, or

a fourth restriction on a risk level associated with each

SKU;

receiving, from the user device, a selection of a stowing location

among the sampled number of locations; and

modifying a database to assign a location identifier associated with the

selected stowing location to the inbound product.

12. The method of claim 11, wherein the plurality of locations are at least 30%, 50%, or 70% empty.
13. The method of claim 11, wherein the zone comprises at least one of a picking zone or a buffer zone.
14. The method of claim 13, wherein the picking zone is configured to store inbound products that are available for purchase by a customer.
15. The method of claim 13, wherein buffer zone is configured to store inbound products that are not available for purchase by a customer.
16. The method of claim 11, further comprising providing, based on the first restriction, a recommendation to store a maximum of three different SKUs in each location.
17. The method of claim 11, further comprising preventing, based on the second restriction, a first inbound product associated with a first SKU having a first

expiration date from being stored with a second inbound product associated with the first SKU having a second expiration date.

18. The method of claim 11, further comprising preventing, based on the third restriction, a first inbound product associated with a first SKU having a first barcode from being stored with a second inbound product associated with the first SKU having a second barcode.
19. The method of claim 11, further comprising providing, based on the fourth restriction, a recommendation to store SKUs having risk levels higher than a predetermined threshold separately, and to store SKUs having risk levels lower than a predetermined threshold in a particular location.
20. A computer-implemented system for providing stowing location recommendation, the system comprising:
a memory storing instructions; and
at least one processor configured to execute the instructions to:
 receive, from a user device associated with a user, a request for a
 location recommendation for stowing at least one inbound
 product, wherein the request comprises:
 a zone associated with the at least one inbound product,
 the zone comprising at least one of a picking zone
 configured to store inbound products that are
 available for purchase by a customer, or a buffer

zone configured to store inbound products that are not available for purchase by a customer;

determine a plurality of locations to recommend within the zone, the plurality of locations being configured to store the at least one inbound product, wherein:

- the plurality of locations are at least 30%, 50%, or 70% empty, and
- the plurality of locations have not been recommended to another user different from the user;

sample, based on a predetermined rule, a number of locations, among the plurality of locations, for stowing the at least one inbound product; and

display, via the user device, the sampled number of locations to the user for stowing the at least one inbound product, wherein the predetermined rule comprises at least one of:

- a first restriction on a number of stock keeping units (SKUs) that can be stored in each location,
- a second restriction on an expiration date associated with each SKU,
- a third restriction on a barcode associated with each SKU, or
- a fourth restriction on a risk level associated with each SKU;

receive, from the user device, a selection of a stowing location among the sampled number of locations; and

modify a database to assign a location identifier associated with the
selected stowing location to the inbound product.