

Claims

1. A computer-implemented system for managing inventory by re-stocking a return item in fulfillment centers, comprising:
 - one or more memory devices storing instructions; and
 - one or more processors configured to execute the instructions to perform operations comprising:
 - receiving, from a user device associated with a customer, a return request and a reason for return;
 - transmitting a pickup request to a mobile device associated with a delivery worker to pick up a return item associated with the return request and deliver the return item to a return center;
 - generating a return item identifier to be affixed to the return item if the return item is in condition of resale;
 - receiving, from a first mobile device associated with the return center, a return item identifier and a request for a return identifier to be affixed to a tote containing the return item for transferring to a target fulfillment center, the target fulfillment center being determined based on the received return item identifier;
 - predicting a zone within the target fulfillment center for stowing the return item associated with the received return item identifier and a stowing capacity of the predicted zone;
 - modifying a database to assign the return item identifier to the return identifier and a tote identifier associated with the tote containing the return item;
 - modifying the database to assign the predicted zone to the tote identifier;
 - modifying the database to assign the target fulfillment center and the tote identifier to the return identifier;

printing, from a printer associated with the return center,
a tote identifier and the return identifier;
transmitting, to the first mobile device, a request to affix
the printed identifiers on the tote;
receiving, from a second mobile device associated with
the target fulfillment center, the return identifier,
the tote identifier, and a location of the second
mobile device, wherein the return identifier and the
tote identifier are captured by the second mobile
device from the printed identifiers affixed to the
tote containing the return item;
retrieving, from the database, the assigned target
fulfillment center and the assigned predicted zone
and comparing both against the received location
of the second mobile device to determine the tote
was transferred to a correct target fulfillment
center;
transmitting a request, to the second mobile device, to
stow the return item in the tote in the predicted
zone in the target fulfillment center when the
proper transfer was processed based on the
comparison; and
modifying the database to assign the return item identifier
assigned to the received tote identifier to the
predicted zone assigned to the received tote
identifier.

2. The computer-implemented system of claim 1, wherein the operations further comprise:

receiving, from the second mobile device associated with the target
fulfillment center, a workstation identifier;
retrieving workstation identifiers;
determining whether the received workstation identifier matches one of
the retrieved workstation identifiers; and

when the received workstation identifier matches one of the retrieved workstation identifiers:

providing, for presentation via the second mobile device, a user interface that includes a message indicating another device associated with a worker is working on a workstation associated with the received workstation identifier, and

when the received workstation identifier does not match one of the retrieved workstation identifiers:

storing the received workstation identifier, and transmitting, to the second mobile device, a request for a return identifier and a tote identifier.

3. The computer-implemented system of claim 1, wherein the return identifier includes one or more tote identifiers.
4. The computer-implemented system of claim 1, wherein the operations further comprise:
 - receiving, from the second mobile device, a return item identifier which is not included in the received return identifier; and
 - transmitting, to the first mobile device, a user interface that includes a message indicating that an incorrect item is in the tote.
5. The computer-implemented system of claim 1, wherein the item identifier associated with the at least one item comprises a stock keeping unit (SKU) associated with the at least one item.
6. The computer-implemented system of claim 1, wherein the operations further comprise:
 - determining whether there are identical return item identifiers among the received return item identifiers; and
 - providing, for presentation via the first mobile device, a user interface that includes a message indicating return items with the identical return item identifiers cannot be placed in the tote.

7. The computer-implemented system of claim 1, wherein the operations further comprise providing, for presentation via the second mobile device, a user interface that includes a selectable interface element for cancelling the received return identifier.
8. The computer-implemented system of claim 2, wherein the user interface that includes a message indicating another device associated with a worker is working on a workstation further comprises a selectable interface element for assigning the workstation to the second mobile device.
9. A computer-implemented method for managing inventory by transferring return items to fulfillment centers, comprising:
 - receiving, from a user device associated with a customer, a return request and a reason for return;
 - transmitting a pickup request to a mobile device associated with a delivery worker to pick up a return item associated with the return request and deliver the return item to a return center;
 - generating a return item identifier to be affixed to the return item if the return item is in condition of resale;
 - receiving, from a first mobile device associated with the return center, the return item identifier and a request for a return identifier to be affixed to a tote containing the return item for transferring to a target fulfillment center, the target fulfillment center being determined based on the received return item identifier;
 - predicting a zone within the target fulfillment center for stowing the return item associated with the received return item identifier and a stowing capacity of the predicted zone;
 - modifying a database to assign the return item identifier to the return identifier and a tote identifier associated with the tote containing the return item;
 - modifying the database to assign the predicted zone to the tote identifier;

modifying the database to assign the target fulfillment center and the tote identifier to the return identifier;
printing, from a printer associated with the return center, the tote identifier and the return identifier;
transmitting, to the first mobile device, a request to affix the printed identifiers on the tote;
receiving, from a second mobile device associated with the target fulfillment center, the return identifier, the tote identifier, and a location of the second mobile device, wherein the return identifier and the tote identifier are captured by the second mobile device from the printed identifiers affixed to the tote containing the return item;
retrieving, from the database, the assigned target fulfillment center and the assigned predicted zone and comparing both against the received location of the second mobile device to determine the tote was transferred to a correct target fulfillment center;
transmitting a request, to the second mobile device, to stow the return item in the tote in the predicted zone in the target fulfillment center when the proper transfer was processed based on the comparison; and
modifying the database to assign the return item identifier assigned to the received tote identifier to the predicted zone assigned to the received tote identifier.

10. The method of claim 9, further comprising:

receiving, from the second mobile device associated with the target fulfillment center, a workstation identifier;
retrieving workstation identifiers;
determining whether the received workstation identifier matches one of the retrieved workstation identifiers; and
when the received workstation identifier matches one of the retrieved workstation identifiers:
providing, for presentation via the second mobile device, a user interface that includes a message indicating

another device associated with a worker is working
on a workstation associated with the received
workstation identifier, and

when the received workstation identifier does not match one of the
retrieved workstation identifiers:

storing the received workstation identifier, and
transmitting, to the second mobile device, a request for a
return identifier and a tote identifier.

11. The method of claim 9, wherein the return identifier includes one or more tote identifiers.
12. The method of claim 9, further comprising:
 - receiving, from the second mobile device, a return item identifier which
is not included in the received return identifier; and
 - transmitting, to the first mobile device, a user interface that includes a
message indicating that an incorrect item is in the tote.
13. The method of claim 9, wherein the item identifier associated with the at least one item comprises a stock keeping unit (SKU) associated with the at least one item.
14. The method of claim 9, further comprising:
 - determining whether there are identical return item identifiers among
the received return item identifiers; and
 - providing, for presentation via the first mobile device, a user interface
that includes a message indicating return items with the identical
return item identifiers cannot be placed in the tote.
15. The method of claim 9, further comprising providing, for presentation via the second mobile device, a user interface that includes a selectable interface element for cancelling the received return identifier.

16. The method of claim 10, wherein the user interface that includes a message indicating another device associated with a worker is working on a workstation further comprises a selectable interface element for assigning the workstation to the second mobile device.