

CLAIMS:

1. A computer-implemented system for sorting a package, comprising memory storage for storing computer-executable instruction; and one or more processors configured to execute the stored instructions to:
 - generate an order identifier based on a received customer order, the customer order comprising a plurality of items, wherein the plurality of items comprise items for urgent delivery and items for normal delivery;
 - determining a promised delivery time for each item of the plurality of items based on whether the item is for urgent delivery or for normal delivery;
 - associate each item of the customer order with the order identifier;
 - determine, based on the order identifier and the promised delivery time for each item, a storage container associated with each item, a container identifier associated with each container and a delivery route;
 - store, in a mapping table, an association between each item of the plurality of items of the customer order with the container identifier based on the order identifier and the promised delivery time for each item;
 - send, to at least one user-device, a first indication to begin a first sortation process to sort one or more items of the plurality of items based on the mapping table;
 - sort the one or more items of the plurality of items based on the first indication;
 - receive, from at least one user-device, a first input related to a status of the first sortation process;
 - send, to at least one user-device for display associated with a sorter, a second indication to sort, using a second sortation process, each

sorted item based on the delivery route, without regard to the status of the first sortation process;
receive, from at least one user-device, a second input related to a status of the second sortation process;
compare the order identifier with the container identifier after the second sortation process;
detect that an exception event has occurred in the second sortation process based on the comparison;
send, to the at least one user-device associated with the sorter, a notification that the exception event has occurred.

2. The system of claim 1, wherein the processor is further configured to:
determine the order identifier;
determine the container identifier;
correlate the order identifier to the container identifier using the mapping table, wherein the mapping table comprises a list of each item of the plurality of items of the customer order mapped with the container identifier based on the order identifier;
determine that there is a mismatch between the order identifier and the container identifier.
3. The system of claim 2, wherein the processor is further configured to send, to at least one user-device, an indication to re-sort one or more item of the plurality of items based on the detected mismatch between the order identifier and the container identifier.
4. The system of claim 2, wherein the processor is further configured to send information associated with the detected exception event to a display device separate from the at least one user-devices for display.

5. The system of claim 4, wherein the information associated with the detected exception event comprises a cause for the exceptional event real time.
6. The system of claim 1, wherein the processor is further configured to detect successful completion of the second sortation process and generating a status update.
7. The system of claim 6, wherein the processor is further configured to send information associated with the updated status to a display device separate from the at least one user-devices for display.
8. The system of claim 6, wherein the processor is further configured to delete the mapping between each item of the plurality of items of the customer order with the container identifier based on the order identifier upon successful completion of the second sortation process.
9. The system of claim 1, wherein the processor is further configured to receive, from at least one user-device, an input comprising information associated with at least one of the order identifier or the container identifier.
10. The system of claim 1, wherein the exception event is triggered upon detecting one or more of:
 - receiving a scan event comprising an invoice identifier and a scan event comprising an unrelated container identifier;
 - receiving a first scan event comprising a first order identifier from a first user-device followed by a second scan event comprising a second order identifier from the first user-device;
 - receiving a scan event comprising a first invoice identifier followed by a second scan event comprising a second invoice identifier;
 - receiving a scan event comprising a first container identifier followed by a second scan event comprising a second container identifier;

receiving the first scan event comprising the first order identifier from the first user-device followed by a second scan event comprising the first order identifier from the first user-device.

11. A computer-implemented method for sorting a package, the method comprising:
 - generating an order identifier based on a received customer order, the customer order comprising a plurality of items, wherein the plurality of items comprise items for urgent delivery and items for normal delivery;
 - determining a promised delivery time for each item of the plurality of items based on whether the item is for urgent delivery or for normal delivery;
 - associating each item of the customer order with the order identifier;
 - determining, based on the order identifier and the promised delivery time for each item, a storage container associated with each item, a container identifier associated with each container and a delivery route;
 - storing, in a mapping table, an association between each item of the plurality of items of the customer order with the container identifier based on the order identifier and the promised delivery time for each item;
 - sending, to at least one user-device, a first indication to begin a first sortation process to sort one or more items of the plurality of items based on the mapping table;
 - sorting the one or more items of the plurality of items based on the first indication;
 - receiving, from at least one user-device, a first input related to a status of the first sortation process;
 - sending, to at least one user-device for display associated with a sorter, a second indication to sort, using a second sortation process, each

sorted item based on the delivery route, without regard to the status of the first sortation process;
receiving, from at least one user-device, a second input related to a status of the second sortation process;
comparing the order identifier with the container identifier after the second sortation process;
detecting that an exception event has occurred in the second sortation process based on the comparison;
sending, to the at least one user-device associated with the sorter, a notification that the exception event has occurred.

12. The method of claim 11, wherein detecting the exception event comprising:
determining the order identifier;
determining the container identifier;
correlating the order identifier to the container identifier using the mapping table, wherein the mapping table comprises a list of each item of the plurality of items of the customer order mapped with the container identifier based on the order identifier;
determining that there is a mismatch between the order identifier and the container identifier.
13. The method of claim 12, further comprising sending, to at least one user-device, an indication to re-sort one or more item of the plurality of items based on the detected mismatch between the order identifier and the container identifier.
14. The method of claim 11, further comprising sending information associated with the detected exception event to a display device separate from the at least one user-devices for display.
15. The method of claim 14, wherein the information associated with the detected exception event comprises a cause for the exceptional event real time.

16. The method of claim 11, further comprising detecting successful completion of the second sortation process and generating a status update.
17. The method of claim 16, further comprising sending information associated with the updated status to a display device separate from the at least one user-devices for display.
18. The method of claim 16, further comprising deleting the mapping between each item of the plurality of items of the customer order with the container identifier based on the order identifier upon successful completion of the second sortation process.
19. The method of claim 11, further comprising receiving, from at least one user-device, an input comprising information associated with at least one of the order identifier or the container identifier.
20. The method of claim 11, wherein the exception event is triggered upon detecting one or more of:
 - receiving a scan event comprising an invoice identifier and a scan event comprising an unrelated container identifier;
 - receiving a first scan event comprising a first order identifier from a first user-device followed by a second scan event comprising a second order identifier from the first user-device;
 - receiving a scan event comprising a first invoice identifier followed by a second scan event comprising a second invoice identifier;
 - receiving a scan event comprising a first container identifier followed by a second scan event comprising a second container identifier;
 - receiving the first scan event comprising the first order identifier from the first user-device followed by a second scan event comprising the first order identifier from the first user-device.