

ABSTRACT

The present disclosure provides a computerized method for assigning items to pickers including: determining a priority of an ordered item; inserting the item into an ordered data structure based on the priority of the item; iteratively, for items in the ordered data structure: determining an item physical location corresponding to a first unassigned item in the ordered data structure; determining a plurality of picker physical locations corresponding to locations of user devices of pickers; calculating a plurality of distances between the item physical location and picker physical locations among the plurality of picker physical locations; assigning the first unassigned item by: identifying a closest picker corresponding to a shortest distance of the plurality of distances; selecting the identified picker; correlating the first unassigned item with the selected picker in a data structure; and sending information of the item and physical location to the user device of the picker.