Source Code Information Documentation

The ‘src’ folder contains the .java files used for this Inventory Allocator program.

Details about each java class:

1. MainClass.java:

This class contains the main method for this program

* Tasks performed in this class include the following:
* Get the input (String) from the user
* Pass the obtained input to "Inventory Allocator class" - to preprocess the string data and calculate the best probability
* Finally print the obtained output String that contains the orders which can be shipped.

1. InventoryAllocator.java:

This class receives the input string from Main method and splits the input string into user requirement and warehouse details

* Check the input String format for missing brackets, details.
* Split the input into 2 (Map of items that were ordered by the user Warehouse and Inventory details).
* Pass the "Map of items that were ordered by the user" input to the "ItemsOrderedByUser" class and creates Hash map for User Requirements.
* Pass the 'Warehouse and Inventory requirements' to "WarehouseAndInventoryDetails" class, creates Hash map for WarehouseAndInventoryDetails.
* Clean some of the static variables used in this program (assign back its default values).

1. ItemsOrderedByUser.java:

This class receives user requirements form the Inventory Allocator class, pre-process the data and creates Hash Map for these details.

* Split the total user requirement string into separate items
* Create a Hash map to store the user requirement data

4)WarehouseAndInventoryDetails.java

This class receives warehouse details and its Inventory items availability form the Inventory Allocator class, pre-process the data and creates Hash Map for these details

* Calculates the total number of warehouses in the input string.
* Separates warehouse and inventory details and passes the details to "WarehouseAndInventorySelectionForDelivery" class to select the user requirements.
* Handles exceptions if there is no inventory data in the input string
* Checks if all the User Requirements for items are available across the warehouses

5) WarehouseAndInventorySelectionForDelivery.java

This class receives user and warehouse requirements form the WarehouseAndInventoryDetails class.

* Check if a warehouse has the user requirements and picks the items
* Keeps a track of key's in the HashMap whose values become zero

6) InventoryAllocatorTest.java

This class contains Unit Test cases for this Inventory Allocator Program