

FORM 2

THE PATENTS ACT 1970

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The Patent Rules 2003

COMPLETE SPECIFICATION

(see sections 10 & rule 13)

1. TITLE OF THE INVENTION

**REAL-TIME CREATION OF STOCK AREA AND EFFICIENTLY ASSOCIATING THE STOCK AREA
WITH OTHER STOCK AREAS**

2. APPLICANT(S)

NAME	NATIONALITY	ADDRESS
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3. PREAMBLE TO THE DESCRIPTION

COMPLETE SPECIFICATION

The following specification particularly describes the invention and the manner in which it is to be performed

REAL-TIME CREATION OF STOCK AREA AND EFFICIENTLY ASSOCIATING THE STOCK AREA WITH OTHER STOCK AREAS

FIELD OF DISCLOSURE

[0001] The present disclosure relates to the field of inventory management. More particularly, the present disclosure provides a system and a method for real-time creation of a stock area and efficiently associating the stock area with other stock areas.

BACKGROUND OF THE DISCLOSURE

[0002] The background description includes information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[0003] Electronic commerce, commonly known as e-commerce, involves the buying and selling of products or services over electronic systems such as the Internet. E-commerce draws on multiple technologies, including mobile commerce, electronic funds transfer, supply chain management, online marketing, online transaction processing, electronic data interchange (EDI), inventory management systems, and automated data collection systems.

[0004] E-commerce is conducted through e-commerce websites using various business models. These models allow online sellers to list products on third-party websites in a manner that is largely transparent to consumers. For example, previously proprietary e-commerce websites owned by large retailers have opened their doors to third-party sellers. These types of websites are known as third-party marketplaces in the industry. Under this model, popular online retailers partner with sellers that are able to enhance consumer experience by bringing greater product selection to their e-commerce websites. Typically, the products of both the operator of the e-commerce website and the sellers selling on the website receive equal treatment in the search results. Third-party marketplaces are particularly advantageous to small and medium sized sellers that may not have the resources to operate an e-commerce website. Examples of large online retailers operating third-party marketplaces include Overstock.com, Amazon.com, Sears.com, Ebay.com, Walmart.com, and Buy.com. It is predicted that many more third-party marketplaces may be available in the near future.

[0005] Although third-party marketplaces have benefitted sellers and online retailers, some drawbacks still exist. For example, the existing model of business has listing of products which are pre-fed to the systems based on their location that is fixed (generally, that of sellers of the products listed).

The user does not have any option to select a seller location most proximate to him/her. Further, the user is confused in terms of distances of sellers of products or trustworthy or reliable or best manufacturer or vendor to meet his/her demand. This shows that even though the e-commerce portals have a clear idea of demand and supply of different products they do not have a transparent supply chain due to lack of proper information like distance, cost, availability of a product, exact time of delivery or approximate time to be taken for delivery of the product through a selected route or source/supplier of the product. Further, supplier and/or customer may not know exact delivery and storage parameters (storage space and delivery time after ordering) of the product, which leads to increased inventory expense, wasted labor expense, poor customer service, increased marketing executives' expense, and high risks. Also, due to availability of multiple products with different suppliers, a user is normally confused from which vendor to order from. Such limitation requires an expert's inputs to identify right supplier/source and/or nearest supplier/vendor available at an e-commerce portal along with the comparison of costs associated with a product available from different suppliers.

[0006] In order to summaries the issues available in the above and existing systems, a scenario is provided as an example. A product of "X" brand is to be ordered by a user using existing system. The existing system shows different suppliers of the product, however, it fails to transparently provide details about the exact location of the suppliers, precise distances of the suppliers from the user , approximate times taken for the product to be delivered at user location etc. Further, it may also be a possibility that the user (a shop owner, for example) may want to create a temporary location in real-time nearby his/her locality from which he/she may want to procure products using suppliers near to this temporary location so that the products are made easily available to the people in his/her locality without any efforts. In another instance, a user while at a location (a coffee shop, for example) may want to procure a product (a book, for example) only from vendors nearby so that the book is delivered to him/her at the temporary location of the coffee shop while he/she is having a coffee there. Such ordering from temporary location created in real-time is not discussed in any of the existing systems. Both the temporary delivery location as well as other locations (of suppliers) can be termed as 'stock areas' and a sale can be visualized as movement of a product from one stock area to another.

[0007] A need therefore exists for methods and systems for automation and/or an artificial intelligence and/or software to create a stock area in real-time and associate the stock area with one or more material products associated with one or more other stock areas to place an order of the material products. Further, there also exists a need to allocate a unique identification (UID) for the stock area created, and automatically update a user on at least one parameter wherein the parameter is selected from any or combination of availability of the other stock areas, non-availability of the other stock areas,

availability/non-availability of material products in the other stock areas and location of the other stock areas.

[0008] All publications herein are incorporated by reference to the same extent as if each individual publication or patent application were specifically and individually indicated to be incorporated by reference. Where a definition or use of a term in an incorporated reference is inconsistent or contrary to the definition of that term provided herein, the definition of that term provided herein applies and the definition of that term in the reference does not apply.

[0009] In some embodiments, the numbers expressing quantities or dimensions of items, and so forth, used to describe and claim certain embodiments of the invention are to be understood as being modified in some instances by the term “about.” Accordingly, in some embodiments, the numerical parameters set forth in the written description and attached claims are approximations that can vary depending upon the desired properties sought to be obtained by a particular embodiment. In some embodiments, the numerical parameters should be construed in light of the number of reported significant digits and by applying ordinary rounding techniques. Notwithstanding that the numerical ranges and parameters setting forth the broad scope of some embodiments of the invention are approximations, the numerical values set forth in the specific examples are reported as precisely as practicable. The numerical values presented in some embodiments of the invention may contain certain errors necessarily resulting from the standard deviation found in their respective testing measurements.

[00010] As used in the description herein and throughout the claims that follow, the meaning of “a,” “an,” and “the” includes plural reference unless the context clearly dictates otherwise. Also, as used in the description herein, the meaning of “in” includes “in” and “on” unless the context clearly dictates otherwise.

[00011] The recitation of ranges of values herein is merely intended to serve as a shorthand method of referring individually to each separate value falling within the range. Unless otherwise indicated herein, each individual value is incorporated into the specification as if it were individually recited herein. All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. The use of any and all examples, or exemplary language (e.g. “such as”) provided with respect to certain embodiments herein is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention otherwise claimed. No language in the specification should be construed as indicating any non-claimed element essential to the practice of the invention.

[00012] Groupings of alternative elements or embodiments of the invention disclosed herein are not to be construed as limitations. Each group member can be referred to and claimed individually or in any combination with other members of the group or other elements found herein. One or more members

of a group can be included in, or deleted from, a group for reasons of convenience and/or patentability.

SUMMARY OF THE INVENTION

[00013] The present disclosure relates to the field of inventory management. More particularly, the present disclosure provides a system and a method for real-time creation of a stock area and efficiently associating the stock area with other stock areas.

[00014] Aspects of the present disclosure relate to a method and a system for automation and/or an artificial intelligence and/or software to create a stock area in real-time and associate the stock area with one or more material products associated with one or more other stock areas to place an order or a demand of the material products. Further, the present disclosure relate to a method and a system to allocate a unique identification (UID) for the stock area created, and automatically update the user on at least one parameter the parameter is selected from any or combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of material products in the other stock areas, or location of the other stock areas, associated with the one or more other stock areas.

[00015] An aspect of the present disclosure relates to a system that includes a non-transitory storage device having embodied therein one or more routines, and one or more processors coupled to the non-transitory storage device and operable to execute the one or more routines. The one or more routines include a stock area creation module that enables a user to create a stock area, wherein the stock area is a physical location (also interchangeably referred to as physical inventory or inventories) or a logical location also interchangeably referred to as logical inventory or inventories) created by the user based on area of interest of the user, and a stock area association module to associates a material product with the stock area and/or with one or more other stock areas, wherein such other stock areas are the logical locations and/or physical locations of the material product.

[00016] In an aspect, the system can further include stock area identification (ID) association module to allocate a unique identification (UID) to the stock area created.

[00017] In an aspect, the system can further include a stock area location finder module to locate the one or more other stock areas nearby the stock area based upon factors that are any or a combination of pre-determined factors and user configurable factors. In an example, the factors can include any or a combination of distance of the one or more other stock areas from the stock area, delivery time of the material product offered by the one or more other stock areas, price of the material product offered by the one or more other stock areas, credit offered by the one or more other stock areas and customer ranking of the one or more other stock areas.

[00018] In an aspect, the system can further include a stock area connect module to enable the stock area to communicably connect with the one or more other stock areas. In another aspect, the stock

area connect module updates the user on at least one parameter associated with the one or more other stock areas, wherein the parameter is selected from any or a combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, and location of the other stock areas.

[00019] In an aspect, the stock area and/or the one or more other stock areas is/are selected from any or a combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and an entity registered under statutory entities selected from a private agency or a Government agency and a judicial agency. In another aspect, the stock area and/or the one or more other stock areas are presented on a computer-implemented map of a geographic area, the computer-implemented map provided on a display of the system accessible by the user.

[00020] In an aspect, the system enables the stock area to receive the material product from the one or more other stock areas.

[00021] In an aspect, the stock area association module the system to display any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route and a delivery details. In another aspect, the stock area association module enables to the system to display any or combination of a cost associated with the material products, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material products, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route, a delivery details, associated with a inventory selected from the one or more inventory.

[00022] In an aspect, the system can further include a pricing module to calculate a price of the material product per unit at the one or more other stock areas based on one or more factors, wherein the factors are selected from any or combination of a quantity of the searchable product, a distance of the one or more other stock areas from the stock area, and a capacity of the one or more other stock areas.

[00023] In an aspect, the stock area is fetched based, at least in part, upon availability of the material product in said one or more inventory.

[00024] In an aspect, the stock area includes an artificial intelligence to automatically perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages. In an exemplary implementation, the stock area can be a unit of intelligence using which such stock area can make a decision to buy from any particular stock area selected from the other stock areas or make decision to sell at a particular location.

[00025] In an aspect, the stock area includes a chatbot (also known as a talkbot, chatterbot, Bot, chatterbox, IM bot, interactive agent, Artificial Conversational Entity) to conducts a conversation via

auditory or textual methods. The chatbot enables the stock area to convincingly simulate how a human would behave as a conversational partner (other stock areas). In an exemplary implementation, the stock area can be equipped to exchange information, such as but not limited to stock area metrics (current holding, future order placed etc), location of stock area, between one another.

[00026] In an aspect, the present disclosure enables to form a community of stock areas to exchange information and goods among them. In an exemplary implementation, the stock area can be made private. Such stock area can be made to collaborate within its organization or within a community.

[00027] In an aspect, the system according to the present disclosure enables to find missing trade links or trade opportunity which would reduce the trade congestion. For instance there is a temporary river sand demand in a particular area A, so there is trade congestion created for all construction material. For alleviating this congestion, the river sand trade is automatically determined from next best possible source according to the system. These are trade opportunity which can be identified by stock area automatically. In another aspect, the system according to the present disclosure also enables to finding the factors contributing to trade congestion and then automatically provides solution to solve trade congestion. In an example, the trade congestion occurs due to various factors such as but not limited to demand for downstream/upstream products, trade policy, political factor, climatic factor, or logistics factor etc. Stock area identifies the reason for trade congestion.

[00028] An aspect of the present disclosure relates to a method to create a stock area by a user using a computing device, wherein the stock area is a physical location or a logical location created by the user based on area of interest of the user, and to associate, by the computing device, a material product with the stock area and with one or more other stock areas, wherein such other stock areas are logical locations and/or physical locations of the material product.

[00029] In an aspect, the method can further allocate, by the computing device, a unique identification (UID) for the stock area created. In another aspect, the method can further locate, by the computing device, one or more other stock areas nearby the stock area. In another aspect, the method can further communicably connect, by the computing device, the stock area with the one or more other stock areas. In another aspect, the method can further automatically update, by the computing device, the user on at least one parameter associated with the one or more other stock areas, wherein the parameter is selected from any or a combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, and location of the other stock areas. In another aspect, the method can further place, by the user using the computing device, an order for the material product for delivery of the material product at the stock area from the one or more other stock areas.

[00030] In another aspect, the method can further any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route, and a delivery details.

[00031] Various objects, features, aspects and advantages of the present disclosure will become more apparent from the following detailed description of preferred embodiments, along with the accompanying drawing figures in which like numerals represent like features.

BRIEF DESCRIPTION OF DRAWINGS

[00032] The accompanying drawings are included to provide a further understanding of the present disclosure, and are incorporated in and constitute a part of this specification. The drawings illustrate exemplary embodiments of the present disclosure and, together with the description, serve to explain the principles of the present disclosure. The diagrams are for illustration only, which thus is not a limitation of the present disclosure, and wherein:

[00033] FIG. 1 illustrates exemplary functional modules of proposed system in accordance with an embodiment of the present disclosure.

[00034] FIG. 2 illustrates an exemplary representation of proposed method in accordance with embodiments of the present disclosure.

[00035] FIGs. 3A-3J illustrates exemplary screenshots of the proposed system to illustrate its working in accordance with embodiments of the present disclosure.

DETAILED DESCRIPTION

[00036] In the following description, numerous specific details are set forth in order to provide a thorough understanding of embodiments of the present invention. It will be apparent to one skilled in the art that embodiments of the present invention may be practiced without some of these specific details.

[00037] Embodiments of the present invention include various steps, which will be described below. The steps may be performed by hardware components or may be embodied in machine-executable instructions, which may be used to cause a general-purpose or special-purpose processor programmed with the instructions to perform the steps. Alternatively, steps may be performed by a combination of hardware, software, and firmware and/or by human operators.

[00038] Embodiments of the present invention may be provided as a computer program product, which may include a machine-readable storage medium tangibly embodying thereon instructions, which may be used to program a computer (or other electronic devices) to perform a process. The machine-readable medium may include, but is not limited to, fixed (hard) drives, magnetic tape, floppy diskettes,

optical disks, compact disc read-only memories (CD-ROMs), and magneto-optical disks, semiconductor memories, such as ROMs, PROMs, random access memories (RAMs), programmable read-only memories (PROMs), erasable PROMs (EPROMs), electrically erasable PROMs (EEPROMs), flash memory, magnetic or optical cards, or other type of media/machine-readable medium suitable for storing electronic instructions (e.g., computer programming code, such as software or firmware).

[00039] Various methods described herein may be practiced by combining one or more machine-readable storage media containing the code according to the present invention with appropriate standard computer hardware to execute the code contained therein. An apparatus for practicing various embodiments of the present invention may involve one or more computers (or one or more processors within a single computer) and storage systems containing or having network access to computer program(s) coded in accordance with various methods described herein, and the method steps of the invention could be accomplished by modules, routines, subroutines, or subparts of a computer program product.

[00040] If the specification states a component or feature “may”, “can”, “could”, or “might” be included or have a characteristic, that particular component or feature is not required to be included or have the characteristic.

[00041] As used in the description herein and throughout the claims that follow, the meaning of “a,” “an,” and “the” includes plural reference unless the context clearly dictates otherwise. Also, as used in the description herein, the meaning of “in” includes “in” and “on” unless the context clearly dictates otherwise.

[00042] Exemplary embodiments will now be described more fully hereinafter with reference to the accompanying drawings, in which exemplary embodiments are shown. These exemplary embodiments are provided only for illustrative purposes and so that this disclosure will be thorough and complete and will fully convey the scope of the invention to those of ordinary skill in the art. The invention disclosed may, however, be embodied in many different forms and should not be construed as limited to the embodiments set forth herein. Various modifications will be readily apparent to persons skilled in the art. The general principles defined herein may be applied to other embodiments and applications without departing from the scope of the invention. Moreover, all statements herein reciting embodiments of the invention, as well as specific examples thereof, are intended to encompass both structural and functional equivalents thereof. Additionally, it is intended that such equivalents include both currently known equivalents as well as equivalents developed in the future (i.e., any elements developed that perform the same function, regardless of structure). Also, the terminology and phraseology used is for the purpose of describing exemplary embodiments and should not be considered limiting. Thus, the present invention is to be accorded the widest scope encompassing numerous alternatives,

modifications and equivalents consistent with the principles and features disclosed. For purpose of clarity, details relating to technical material that is known in the technical fields related to the invention have not been described in detail so as not to unnecessarily obscure the present invention.

[00043] Thus, for example, it will be appreciated by those of ordinary skill in the art that the diagrams, schematics, illustrations, and the like represent conceptual views or processes illustrating systems and methods embodying this invention. The functions of the various elements shown in the figures may be provided through the use of dedicated hardware as well as hardware capable of executing associated software. Similarly, any switches shown in the figures are conceptual only. Their function may be carried out through the operation of program logic, through dedicated logic, through the interaction of program control and dedicated logic, or even manually, the particular technique being selectable by the entity implementing this invention. Those of ordinary skill in the art further understand that the exemplary hardware, software, processes, methods, and/or operating systems described herein are for illustrative purposes and, thus, are not intended to be limited to any particular named element.

[00044] Each of the appended claims defines a separate invention, which for infringement purposes is recognized as including equivalents to the various elements or limitations specified in the claims. Depending on the context, all references below to the "invention" may in some cases refer to certain specific embodiments only. In other cases it will be recognized that references to the "invention" will refer to subject matter recited in one or more, but not necessarily all, of the claims.

[00045] All methods described herein can be performed in any suitable order unless otherwise indicated herein or otherwise clearly contradicted by context. The use of any and all examples, or exemplary language (e.g., "such as") provided with respect to certain embodiments herein is intended merely to better illuminate the invention and does not pose a limitation on the scope of the invention otherwise claimed. No language in the specification should be construed as indicating any non-claimed element essential to the practice of the invention.

[00046] It may be appreciated that, a logical inventory is a logical space for the one or more sources to define the capacity associated with the materials and/or the products. The logical inventory can be categorized based on information having particular shared characteristics.

[00047] In an example, the details of the formation/creation of the logical inventories can be understood in detail from an Indian Patent Application No. 201741013826 titled "REAL TIME LOGICAL INVENTORY CREATION AND MANAGEMENT SYSTEM".

[00048] The present disclosure relates to the field of inventory management. More particularly, the present disclosure provides a system and a method for real-time creation of a stock area and efficiently associating the stock area with other stock areas.

[00049] Aspects of the present disclosure relate to a method and a system for automation and/or an artificial intelligence and/or software to create a stock area in real-time and associate the stock area with one or more material products associated with one or more other stock areas to place an order or a demand of the material products. Further, the present disclosure relate to a method and a system to allocate a unique identification (UID) for the stock area created, and automatically update the user on at least one parameter the parameter is selected from any or combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of material products in the other stock areas, or location of the other stock areas, associated with the one or more other stock areas.

[00050] An aspect of the present disclosure relates to a system that includes a non-transitory storage device having embodied therein one or more routines, and one or more processors coupled to the non-transitory storage device and operable to execute the one or more routines. The one or more routines include a stock area creation module that enables a user to create a stock area, wherein the stock area is a physical location (also interchangeably referred to as physical inventory or inventories) or a logical location also interchangeably referred to as logical inventory or inventories) created by the user based on area of interest of the user, and a stock area association module to associates a material product with the stock area and/or with one or more other stock areas, wherein such other stock areas are the logical locations and/or physical locations of the material product.

[00051] In an aspect, the system can further include stock area identification (ID) association module to allocate a unique identification (UID) to the stock area created.

[00052] In an aspect, the system can further include a stock area location finder module to locate the one or more other stock areas nearby the stock area based upon factors that are any or a combination of pre-determined factors and user configurable factors. In an example, the factors can include any or a combination of distance of the one or more other stock areas from the stock area, delivery time of the material product offered by the one or more other stock areas, price of the material product offered by the one or more other stock areas, credit offered by the one or more other stock areas and customer ranking of the one or more other stock areas.

[00053] In an aspect, the system can further include a stock area connect module to enable the stock area to communicably connect with the one or more other stock areas. In another aspect, the stock area connect module updates the user on at least one parameter associated with the one or more other stock areas, wherein the parameter is selected from any or a combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, and location of the other stock areas.

[00054] In an aspect, the stock area and/or the one or more other stock areas is/are selected from any or a combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and

an entity registered under statutory entities selected from a private agency or a Government agency and a judicial agency. In another aspect, the stock area and/or the one or more other stock areas are presented on a computer-implemented map of a geographic area, the computer-implemented map provided on a display of the system accessible by the user.

[00055] In an aspect, the system enables the stock area to receive the material product from the one or more other stock areas.

[00056] In an aspect, the stock area association module the system to display any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route and a delivery details. In another aspect, the stock area association module enables to the system to display any or combination of a cost associated with the material products, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material products, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route, a delivery details, associated with a inventory selected from the one or more inventory.

[00057] In an aspect, the system can further include a pricing module to calculate a price of the material product per unit at the one or more other stock areas based on one or more factors, wherein the factors are selected from any or combination of a quantity of the searchable product, a distance of the one or more other stock areas from the stock area, and a capacity of the one or more other stock areas.

[00058] In an aspect, the stock area is fetched based, at least in part, upon availability of the material product in said one or more inventory.

[00059] In an aspect, the stock area includes an artificial intelligence to automatically perform tasks normally requiring human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages. In an exemplary implementation, the stock area can be a unit of intelligence using which such stock area can make a decision to buy from any particular stock area selected from the other stock areas or make decision to sell at a particular location.

[00060] In an aspect, the stock area includes a chatbot (also known as a talkbot, chatterbot, Bot, chatterbox, IM bot, interactive agent, Artificial Conversational Entity) to conducts a conversation via auditory or textual methods. The chatbot enables the stock area to convincingly simulate how a human would behave as a conversational partner (other stock areas). In an exemplary implementation, the stock area can be equipped to exchange information, such as but not limited to stock area metrics (current holding, future order placed etc), location of stock area, between one another.

[00061] In an aspect, the present disclosure enables to form a community of stock areas to exchange information and goods among them. In an exemplary implementation, the stock area can be made private. Such stock area can be made to collaborate within its organization or within a community.

[00062] In an aspect, the system according to the present disclosure enables to find missing trade links or trade opportunity which would reduce the trade congestion. For instance there is a temporary river sand demand in a particular area A, so there is trade congestion created for all construction material. For alleviating this congestion, the river sand trade is automatically determined from next best possible source according to the system. These are trade opportunity which can be identified by stock area automatically. In another aspect, the system according to the present disclosure also enables to finding the factors contributing to trade congestion and then automatically provides solution to solve trade congestion. In an example, the trade congestion occurs due to various factors such as but not limited to demand for downstream/upstream products, trade policy, political factor, climatic factor, or logistics factor etc. Stock area identifies the reason for trade congestion.

[00063] An aspect of the present disclosure relates to a method to create a stock area by a user using a computing device, wherein the stock area is a physical location or a logical location created by the user based on area of interest of the user, and to associate, by the computing device, a material product with the stock area and with one or more other stock areas, wherein such other stock areas are logical locations and/or physical locations of the material product.

[00064] In an aspect, the method can further allocate, by the computing device, a unique identification (UID) for the stock area created. In another aspect, the method can further locate, by the computing device, one or more other stock areas nearby the stock area. In another aspect, the method can further communicably connect, by the computing device, the stock area with the one or more other stock areas. In another aspect, the method can further automatically update, by the computing device, the user on at least one parameter associated with the one or more other stock areas, wherein the parameter is selected from any or a combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, and location of the other stock areas. In another aspect, the method can further place, by the user using the computing device, an order for the material product for delivery of the material product at the stock area from the one or more other stock areas.

[00065] In another aspect, the method can further any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route, and a delivery details.

[00066] FIG. 1 illustrates exemplary functional modules of a system 100 in accordance with an embodiment of the present disclosure. In one embodiment, the system 100 may include at least one processor (not shown), an input/output (I/O) interface (not shown), and a memory (not shown). The processor may be implemented as one or more microprocessors, microcomputers, microcontrollers, digital signal processors, central processing units, state machines, logic circuitries, and/or any devices that manipulate signals based on operational instructions. Among other capabilities, the at least one processor is configured to fetch and execute computer-readable instructions stored in the memory.

[00067] The I/O interface may include a variety of software and hardware interfaces, for example, a web interface, a graphical user interface, and the like. The I/O interface may allow the system 100 to interact with a user directly or through a computing device (not shown). Further, the I/O interface may enable the system 100 to communicate with other computing devices (not shown), such as web servers and external data servers (not shown). The I/O interface can facilitate multiple communications within a wide variety of networks and protocol types, including wired networks, for example, LAN, cable, etc., and wireless networks, such as WLAN, cellular, or satellite. The I/O interface may include one or more ports for connecting a number of devices to one another or to another server.

[00068] In various embodiments, the system 100 can include a storage storing a control routine, a processor circuit, controls, a display, and a link interface for various uses of the system 100 including, without limitation, running application programs and communicating with various networks and devices such as the Internet. It is envisioned that the system 100 is likely to be a relatively portable computing device able to be carried on the person of its operator (e.g., a smartphone, a personal data assistant (PDA), a tablet computer, a watch or wearable computer, etc.). It is therefore further envisioned that the links formed between the system 100 and the computing device are likely to be wireless or wired links.

[00069] The links may be based on any of a variety (or combination) of communications technologies by which signals may be exchanged, including without limitation, wired technologies employing electrically and/or optically conductive cabling, and wireless technologies employing infrared, radio frequency or other forms of wireless transmission. It is envisioned that one or more of these links may be implemented as channels of communication (e.g., virtual private network (VPN) channels or other forms of virtual channels) formed between computing devices through portions of the Internet.

[00070] Generally, and in various embodiments, the links will use signaling and/or protocols conforming to any of a variety of industry standards, including without limitation, RS-232C, RS-422, USB, Ethernet (IEEE-802.3) or IEEE-1394. Alternatively or additionally, where one or more portions of the links employ wireless signal transmission, one or more of the interfaces may employ signaling and/or protocols conforming to any of a variety of industry standards, including without limitation, IEEE 802.11a, 802.11b, 802.11g, 802.16, 802.20 (commonly referred to as “Mobile Broadband Wireless

Access”); Bluetooth; ZigBee; or a cellular radiotelephone service such as GSM with General Packet Radio Service (GSM/GPRS), CDMA/1xRTT, Enhanced Data Rates for Global Evolution (EDGE), Evolution Data Only/Optimized (EV-DO), Evolution For Data and Voice (EV-DV), High Speed Downlink Packet Access (HSDPA), High Speed Uplink Packet Access (HSUPA), 4G LTE, etc.

[00071] The memory may include any computer-readable medium known in the art including, for example, volatile memory, such as static random access memory (SRAM) and dynamic random access memory (DRAM), and/or non-volatile memory, such as read only memory (ROM), erasable programmable ROM, flash memories, hard disks, optical disks, and magnetic tapes. The memory may include modules and data.

[00072] In a non-limiting embodiment, the system 100 can include a stock area creation module 102, a stock area association module 104, a stock area identification (ID) association module 106, a stock area location finder module 108, a stock area connect module 110, and a pricing module 112.

[00073] In an embodiment, the stock area creation module 102 enables a user to create a stock area. In an exemplary embodiment, the stock area is a physical location or logical location created based on user’s area of interest. In an example, the stock area can be a physical location of the user in real time. In another example, the stock area can be any remote location of user’s interest, for example where the user wants a product to be delivered, although the user himself/herself is remote from that location.

[00074] In an exemplary embodiment, the user may decide a location of the stock area based on various factors. The factors may be associated with the product, availability, salability, locality or demand and the like parameters directly or indirectly affecting trade of a particular product. In an example, if a user sitting at New Delhi, India realizes that there is no availability of milk and milk products of “Mother Dairy” brand in Mumbai, Maharashtra, India, he/she may create a stock area in system proposed (i.e., logical location) or allocate an existing stock area (i.e., physical location) for Mumbai location envisioning that the user himself/herself is a seller of the “Mother Dairy” brand. In another example, the location Mumbai can be a current physical address of the user.

[00075] It may be appreciated that, the example of the Mother dairy is merely used for understanding purpose and shall not restrict the scope of the present disclosure in any manner whatsoever. Having said that, it may be appreciated that the products available on any online retail store or shopping sites may be considered to fall within the scope of the present disclosure.

[00076] In an embodiment, the stock area association module 104 associates the stock area with a material product and subsequently automatically associates the stock area with one or more other stock areas having the material product to enable the user place an order or a demand of the material product. In an exemplary embodiment, the stock areas are the logical locations and/or physical locations of the material product. In an example, the user who has created the stock area at Mumbai location can be

shown various products of brand Mother Dairy as available at various other stock areas in near proximity as well as at remote locations. For example, the stock area created for Mumbai location for Mother Dairy brand of products automatically gets associated with the various Mother Dairy brand products provided by the other stock areas nearby or at remote locations.

[00077] In another exemplary embodiment, the stock area association module 104 enables the user (who created the stock area) to place an order to one or more other stock areas of the material product associated by the user with the stock area. In an example, the order is user configurable. For example, the user can place an order as per his requirement say 1 Samsung phone to 100 Samsung phones.

[00078] In yet another exemplary embodiment, the stock area association module 104 enables display of any or combination of a cost associated with the associated material product (interchangeably termed as the material product), a distance between the stock area associated and the one or more other stock areas, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route and a delivery details. The material product can in turn be associated with an inventory selected from one or more inventory available at the one or more stock areas. In an example, the one or more other stock areas are fetched / determined based, at least in part, upon availability of the material product in the one or more inventory.

[00079] In another example, the stock area and/or the one or more other stock areas are selected from any of combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and an entity registered under statutory entities selected from a private agency or a Government agency or a judicial agency. In another example, the stock area receives the material product from the one or more other stock areas.

[00080] In an example, the stock area and/or the one or more other stock areas are presented on a computer-implemented map of a geographic area, the computer-implemented map is provided on a display of the system being accessible by the user.

[00081] In an embodiment, the stock area identification (ID) association module 106 allocates a unique identification (UID) for the stock area created. In an exemplary embodiment, the UID enables the system to create unique stock areas that remain consistent throughout the system based upon the UID.

[00082] In an embodiment, the stock area location finder module 108 locates one or more other stock areas nearby the stock area and provides such data to module 104 so as to enable module 104 associate the other stock areas with the stock area created by the user, as elaborated above.

[00083] In an embodiment, the stock area location finder module 108 locates one or more other stock areas nearby the stock area. In an exemplary embodiment, such other stock areas nearby the stock

area can be pin-pointed on a computer implemented map which provides exact location and directions of the other stock areas from the stock area created. In another exemplary embodiment, the one or more other stock areas located by module 108 can be within a pre-determined distance from the stock area, such pre-determined distance being automatically set by the system or being user configurable. For example, the user may indicate to the system that he/she wants delivery of a product within two hours at the stock area created by him/her when the proposed system can associate only such other stock areas that meet these criteria. Any or a combination of such criteria/factors may be set by the user (for example, delivery time of the material product offered by another stock area, price of the material product offered by the other stock area, credit offered by the other stock area, customer ranking of the other stock area etc.) and the proposed system may automatically select and display to the user the one or more other stock areas accordingly to enable the user to order the product from one/more of such stock areas.

[00084] In an embodiment, the stock area connect module 110 automatically updates the user on the at least one parameter associated with the one or more other stock areas. In an example, the parameter is selected from any or combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of material product in the other stock areas, or location of the other stock areas.

[00085] In an embodiment, the pricing module 112 calculates price of the material product per unit of the one or more other stock areas based on one or more factors, the factors are selected from any or combination of a quantity of the material product, a distance of the inventory of the material product from the stock area, and a capacity of the inventory of the material product.

[00086] FIG. 2 illustrates an exemplary representation of a method in accordance with embodiments of the present disclosure.

[00087] In an aspect, the method includes, at step 202 creating, by a user using a computing device, a stock area; wherein the stock area is a physical location or a logical location created based on the user's area of interest.

[00088] In another aspect, the method includes, at step 204, associating, by the computing device, the stock area with one or more material products associated with one or more other stock areas to enable the user place an order of the one or more material products wherein the other stock areas are logical locations and/or physical locations of the one or more material products.

[00089] In an embodiment, a stock area with a material product is associated with one or more other stock areas to place an order of the material product. In an exemplary embodiment, such other stock areas are logical locations and/or physical locations of the material product.

[00090] In an exemplary embodiment, the method can allocate a unique identification (UID) to the stock area created by using the computing device. In another exemplary embodiment, the method can

allocate one or more other stock areas nearby the stock area by using the computing device. In another exemplary embodiment, the method can communicably connect the stock area with the one or more other stock areas by using the computing device. In another exemplary embodiment, the method can automatically update the user on at least one parameter associated with the one or more other stock areas. In an example, the parameter is selected from any or combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, or location of the other stock areas.

[00091] In another exemplary embodiment, the method can enable the user to place an order from the stock area to the one or more other stock areas of material products.

[00092] In another exemplary embodiment, the method can display for the material product any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route and a delivery details, wherein the material product is associated with an inventory selected from the one or more inventory.

[00093] FIGs. 3A-3J illustrates an exemplary screenshots of the system during its working in accordance with embodiments of the present disclosure. The screenshots illustrate what may be displayed on display of a user's computing device as he/she works the proposed system. In an exemplary embodiment, FIG. 3A illustrates a login or registration page of the system. As shown in FIG. 3A, the link "how it works" 302 provides an overview of the system in terms of how it works to assist the new users to operate the system efficiently. The link "Sign in or Signup" 304 enables a user to either log in to the system if the user is already registered with the system or enables the user to create a new profile of himself/herself into the system. It may be appreciated that while creating a new profile, the user may enter his/her personal details such as but not limited to name, date of birth, mobile/phone number, mail id, address, and the like details. Further, it may be appreciated that, as shown in block 306, to log in the user may have to only enter his/her email or phone number and password set at time of registration to the system.

[00094] FIG. 3B illustrates an exemplary page of the system when a user logs in to the system. As shown, the link "Add stock area" 308 enables the user to add a new stock area. In an example, the stock area is a physical location or logical location created based on user's area of interest. The stock area can be selected from any of combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and an entity registered under statutory entities selected from a private agency or a Government agency or a judicial agency.

[00095] The block “username” 310 provide a username (i.e., XYZ) with drop down which enables to view the profile information of the user created at the time of registration along with various other options such as but not limited to settings, profile, and log out. Apart from 308 and 310, the system provides various other menu links that include but are not limited to “Map” 312, “Product info” 314, “Stock area Info” 316, “Order History” 318, “Add Material” 320, and “Settings” 322. Each of these other menu links will be explained in detail in following description.

[00096] The block 324 provides a mechanism to search a product for its availability in the system. The block 324 may also show some of the popular products of the system or may show the list of available selectable products in the system which a user may wish to order using the system.

[00097] FIG. 3C illustrates working of link “Add stock area” 308. The link “Add stock area” 308 enables a user to create a new stock area. The stock area is a physical location or logical location created based on the user’s area of interest, and can be selected from any of combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and an entity registered under statutory entities selected from a private agency or a Government agency or a judicial agency. In an exemplary embodiment, when the user clicks on link “Add stock area” 308 a new window “Add Stock Area” 325 pops up on display of the user’s computing device being used to work the proposed system, enabling the user to fill in details such as but not limited to “Stock Area Name” 326, “mark stock area” 327, “latitude” 328, “longitude” 330, “address” 334, and “phone number” 334. In an example, the user may just select his location on a computer implemented map provided on the display by typing closest location to his stock area and the system automatically fetches the latitude, longitude and address details from the GPS system or pre-fed information of the map and populates latitude/longitude fields as described above automatically.

[00098] Upon submitting the details using a “submit” button 336 provided on the window “Add Stock Area” 325, a new stock area with a unique identifier is created by the system as shown in FIG. 3D. FIG. 3D illustrate details 340 of a new stock area with name “S1” 338 created using the information fed to the system as per FIG. 3C.

[00099] FIG. 3E illustrates working of the menu link “Add Material” 320. As shown, the link “Add Material” 320 enables the user to search for the available products near to stock area “S1” 338 newly created by him/her (as per FIGs. 3B-3D). As shown in FIG. 3E, the block 342 shows an exemplary result of a search “Samsung”. As shown in the block 342, all the results of the “Samsung” are displayed by the system. These results can be fetched from all the associated stock areas as well as based on the availability of such products in the system.

[000100] It may be appreciated that a user may create multiple stock areas for different locations based on his/her interest /location at any time. However, for understanding purpose, the explanation from stock area S1 point of view is discussed in greater details.

[000101] FIG. 3F illustrates working of the menu link “Product Info” 314. As shown in FIG. 3F, when a user selects any product, say “Samsung Galaxy S6 32GB”, displayed in the search results, a detailed description 344 of such selected product i.e., “Samsung Galaxy S6 32GB” is provided by the system along with an option to buy/place an order. In an exemplary embodiment, the description may be pre-fed to the system or may be fetched from any online content providing sites.

[000102] FIG. 3G illustrates the proposed system’s workflow after selecting a product according to FIG. 3F. As shown, the block 346 provides details of the product along with the details of source of dispatch of the product, quantity and the like order associated details to the user. The block 346 further includes a button labeled “Add Order” to place order for the selected product.

[000103] FIG. 3H illustrates working of the menu link “Order History” 318. As shown, the block 348 provides details of the orders placed in past, the order placed recently, as well as the order being placed.

[000104] FIG. 3I illustrates working of the menu link “Map” 312. As shown, while placing an order for the selected product (according to FIG. 3E), the system also shows various different options in terms of the different sources of a product selected by a user. The user can then see a map which enables him/her to decide exact location of another stock area from which the selected product can be received. For example, as shown in FIG. 3H, location “X” 356, location “Madurai” and location “Y” 360 are nearby location 354 of stock area “S1” 338. The system further enables the user to decide which stock area the user is interested to order the product from. In an exemplary embodiment, the system by default selects at least one stock area as source based on any or combination of distance between the source and destination, cost variance of the product, delivery time, delivery type and the like.

[000105] It may be appreciated that location “X” 356, location “Madurai” and location “Y” 360 are physical locations or logical locations and can be selected from any of combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and an entity registered under statutory entities selected from a private agency or a Government agency or a judicial agency.

[000106] In another exemplary embodiment, the system displays the details associated with a selected source stock area which further assists the user in placing of an order to that particular source due to transparent nature of the system. For example, as shown in block 362, the details associated with the stock area “Madurai” 358 as source of the product is provided. The details may include but are not limited to cost of the product as per the stock area “Madurai” 358, distance between the location 354 and the stock area “Madurai” 358 and approximate time take for delivery of the order if placed. Similarly, if the

user selects the location “Y” 360 the details may differ from that of the stock area “Madurai” 358. Thus, the system provides an easy and efficient order placement method due to its transparent nature.

[000107] In an exemplary embodiment, once the order is placed, FIG. 3J illustrates an exemplary invoice 364 generated by the system. The invoice includes details of the order placed by a user along with its source and destination details, approximate time of delivery, distance and the like details.

[000108] It may be appreciated that a user may create multiple stock areas say S1, S2, S3 Sn, wherein, according to the system of the present disclosure, each stock area will have a unique identification number allocated/assigned.

[000109] Although the system has been elaborated as above to include all the main modules, it is completely possible that actual implementations may include only a part of the modules or a combination of those or a division of those into sub-modules in various combinations across multiple devices that can be operatively coupled with each other, including in the cloud. Further the modules can be configured in any sequence to achieve objectives elaborated. Also, it can be appreciated that system can be configured in a computing device or across a plurality of computing devices operatively connected with each other, wherein the computing devices can be any of a computer, a laptop, a smartphone, an Internet enabled mobile device and the like. All such modifications and embodiments are completely within the scope of the present disclosure.

[000110] As used herein, and unless the context dictates otherwise, the term “coupled to” is intended to include both direct coupling (in which two elements that are coupled to each other or in contact each other) and indirect coupling (in which at least one additional element is located between the two elements). Therefore, the terms “coupled to” and “coupled with” are used synonymously. Within the context of this document terms “coupled to” and “coupled with” are also used euphemistically to mean “communicatively coupled with” over a network, where two or more devices are able to exchange data with each other over the network, possibly via one or more intermediary device.

[000111] Moreover, in interpreting both the specification and the claims, all terms should be interpreted in the broadest possible manner consistent with the context. In particular, the terms “comprises” and “comprising” should be interpreted as referring to elements, components, or steps in a non-exclusive manner, indicating that the referenced elements, components, or steps may be present, or utilized, or combined with other elements, components, or steps that are not expressly referenced. Where the specification claims refers to at least one of something selected from the group consisting of A, B, Cand N, the text should be interpreted as requiring only one element from the group, not A plus N, or B plus N, etc.

[000112] While some embodiments of the present disclosure have been illustrated and described, those are completely exemplary in nature. The disclosure is not limited to the embodiments as elaborated

herein only and it would be apparent to those skilled in the art that numerous modifications besides those already described are possible without departing from the inventive concepts herein. All such modifications, changes, variations, substitutions, and equivalents are completely within the scope of the present disclosure. The inventive subject matter, therefore, is not to be restricted except in the scope of the appended claims.

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We Claim:

1. A system comprising:
 - a non-transitory storage device having embodied therein one or more routines; and one or more processors coupled to the non-transitory storage device and operable to execute the one or more routines, wherein the one or more routines include:
 - a stock area creation module, which when executed by the one or more processors, enables a user to create a stock area, wherein the stock area is a physical location or a logical location created by the user based on area of interest of the user; and
 - a stock area association module, which when executed by the one or more processors, associates a material product with the stock area and/or with one or more other stock areas, wherein such other stock areas are the logical locations and/or physical locations of the material product.
2. The system as claimed in claim 1 further comprises a stock area identification (ID) association module, which when executed by the one or more processors, allocates at least one unique identification (UID) to the stock area created.
3. The system as claimed in claim 1 further comprises a stock area location finder module, which when executed by the one or more processors, locates the one or more other stock areas nearby the stock area based upon factors that are any or a combination of pre-determined factors and user configurable factors.
4. The system of claim 3, wherein the factors comprise any or a combination of distance of the one or more other stock areas from the stock area, delivery time of the material product offered by the one or more other stock areas, price of the material product offered by the one or more other stock areas, credit offered by the one or more other stock areas and customer ranking of the one or more other stock areas.
5. The system as claimed in claim 1 further comprises: a stock area connect module, which when executed by the one or more processors, enables the stock area to communicably connect with the one or more other stock areas.

6. The system as claimed in claim 4, wherein the stock area connect module automatically updates the user on at least one parameter associated with the one or more other stock areas, wherein the parameter is selected from any or a combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, and location of the other stock areas.
7. The system as claimed in claim 1, wherein the stock area and/or the one or more other stock areas is/are selected from any or a combination of a factory, a warehouse, a house, a retail store, a shopping mall, a company, and an entity registered under statutory entities selected from a private agency or a Government agency and a judicial agency.
8. The system as claimed in claim 1, wherein the stock area and/or the one or more other stock areas are presented on a computer-implemented map of a geographic area, the computer-implemented map provided on a display of the system accessible by the user.
9. The system as claimed in claim 1, wherein the stock area association module further enables the user to place an order of the material product to the one or more other stock areas of material products.
10. The system as claimed in claim 1, wherein the system enables the stock area to receive the material product from the one or more other stock areas.
11. The system as claimed in claim 1, wherein the stock area association module enables the system to display any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route and a delivery details.
12. The system as claimed in claim 1 further comprises a pricing module, that when executed by the one or more processors, calculates a price of the material product per unit at the one or more other stock areas based on one or more factors, wherein the factors are selected from any or combination of a quantity of the searchable product, a distance of the one or more other stock areas from the stock area, and a capacity of the one or more other stock areas.
13. A method comprising:

creating, by a user using a computing device, a stock area, wherein the stock area is a physical location or a logical location created by the user based on area of interest of the user; and

associating, by the computing device, a material product with the stock area and with one or more other stock areas, wherein such other stock areas are logical locations and/or physical locations of the material product.

14. The method as claimed in claim 13, further comprises:

allocating, by the computing device, at least one unique identification (UID) for the stock area created;

locating, by the computing device, one or more other stock areas nearby the stock area;

communicably connecting, by the computing device, the stock area with the one or more other stock areas;

automatically updating, by the computing device, the user on at least one parameter associated with the one or more other stock areas, wherein the parameter is selected from any or a combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the material product in the other stock areas, and location of the other stock areas;

placing, by the user using the computing device, an order for the material product for delivery of the material product at the stock area from the one or more other stock areas; and/or

displaying any or combination of a cost associated with the material product, a distance between the stock area and the one or more other stock area, a time taken for the delivery of the material product, a source information, a destination information, a contact details of source, a contact details of destination, a delivery route, and a delivery details.

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ABSTRACT

REAL-TIME CREATION OF STOCK AREA AND EFFICIENTLY ASSOCIATING THE STOCK AREA WITH OTHER STOCK AREAS

The present disclosure provides a system and a method for real-time creation of stock area and efficiently associating the stock area with other stock areas. Aspects of the present disclosure relate to a method and system for automation and/or an artificial intelligence to create a stock area in real-time and associate the stock area with one or more material products associated with one or more other stock areas to place an order or a demand of the material products. Further, the present disclosure relates to a method and system to allocate a unique identification (UID) for the stock area created, and automatically update the user on parameters selected from any or combination of availability of the other stock areas, non-availability of the other stock areas, availability/non-availability of the one or more material products in the other stock areas, and location of the other stock areas.

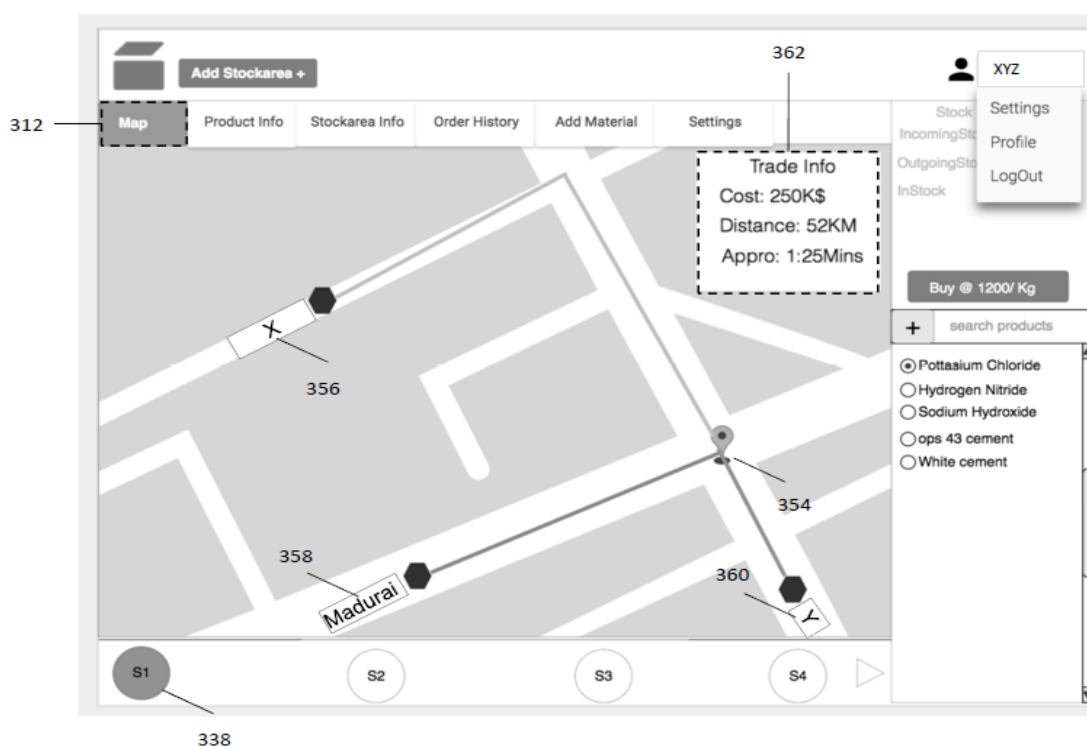


FIG. 3I

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