

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
16 August 2001 (16.08.2001)

PCT

(10) International Publication Number
WO 01/59664 A1

(51) International Patent Classification⁷: **G06F 17/60**

(21) International Application Number: PCT/US01/04093

(22) International Filing Date: 7 February 2001 (07.02.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
09/502,863 11 February 2000 (11.02.2000) US
60/181,666 11 February 2000 (11.02.2000) US

(71) Applicant (for all designated States except US):
SHOPEAZE SYSTEMS, INC. [US/US]; 5201 Great American Parkway, Suite 219, Santa Clara, CA 95054 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **LIEU, Sun, Ming**

[CA/US]; 786 Campbell Avenue, Los Altos, CA 94024 (US). **MALISKA, Thomas, P.** [US/US]; 2850 Middlefield Road, #235, Palo Alto, CA 94306 (US). **YEE, Donald** [US/US]; 27 McNeil Lane, Danville, CA 94526 (US).

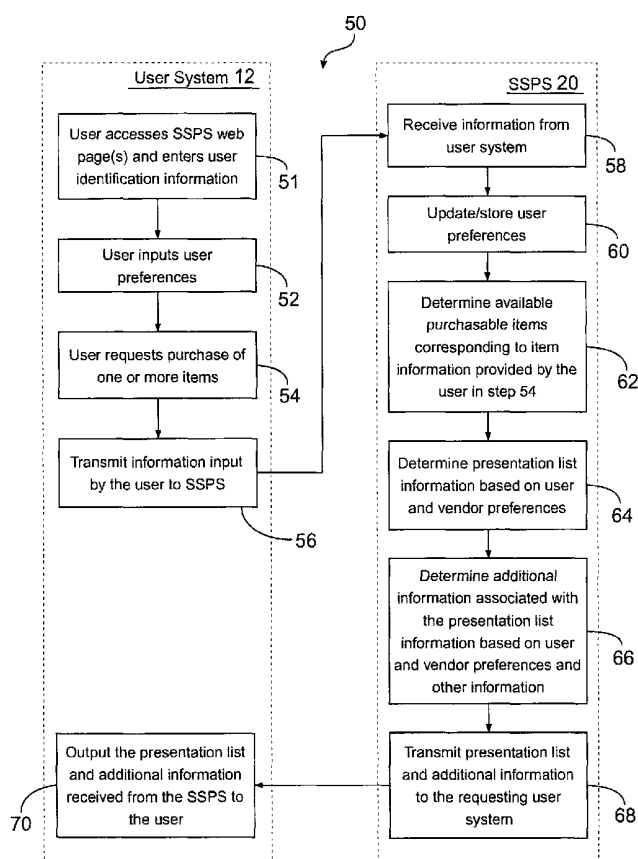
(74) Agents: **KOTWAL, Sujit, B.** et al.; Townsend and Townsend and Crew LLP, Two Embarcadero Center, 8th floor, San Francisco, CA 94111 (US).

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR FACILITATING ONLINE SHOPPING ACTIVITIES



(57) Abstract: Techniques for providing purchase information to a user such that the purchase information is personalized for the user, and at the same time allows vendors to affect the purchasing behavior of the user (see fig.3). In response to a user request (54) to purchase an item, the present invention determines presentation list information (64) and additional information associated with the presentation list (66) to be provided to the user. The presentation list information and the additional information is configured based on user preferences information and vendor preferences information accessible to the present invention.



WO 01/59664 A1



patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,
IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF,
CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*

SYSTEM AND METHOD FOR FACILITATING ONLINE SHOPPING ACTIVITIES

CROSS-REFERENCES TO RELATED APPLICATIONS

5 This application claims priority from the following applications, the entire disclosures of which are herein incorporated by reference for all purposes:

(1) U.S. Provisional Patent Application No. 60/181,666 (Attorney Docket No. 20004-000700US), entitled "SYSTEM AND METHOD FOR FACILITATING ELECTRONIC COMMERCE ACTIVITIES" filed February 11, 2000; and

10 (2) U.S. Non-Provisional Patent Application No. 09/502,863 (Attorney Docket No. 20004-000800US), entitled "SYSTEM AND METHOD FOR FACILITATING ONLINE SHOPPING ACTIVITIES" filed February 11, 2000.

BACKGROUND OF THE INVENTION

15 The present invention relates generally to the field of electronic commerce and more particularly to techniques for providing customized purchase information to a user which not only enhances the user's online shopping experience and but also allows vendors to influence the user's online shopping behavior.

20 Usage of communication networks, such as the Internet, has increased exponentially in recent years. Users of the Internet perform a broad variety of activities ranging from activities for accessing information such as news, weather information, sports related information, stocks information, etc., to performing electronic commerce (e-commerce) related activities such as buying or selling goods/services, and other similar activities.

25 Electronic commerce has emerged as a multi-billion dollar marketplace for consumers and businesses alike in recent years. A wide variety of products and services can now be obtained or purchased by users via online transactions. The typical steps performed by a user for purchasing a product or service online include browsing the Internet for online vendors providing the desired product or service, browsing catalogs of
30 the online vendors, selecting a product or service for purchase from a vendor's online catalog, and consummating the purchase transaction by authorizing payment, usually via a credit card, for the selected product or service.

The online shopping experience is becoming more complex as the types of purchase decisions users confront online move from simple product transactions (e.g., a book) towards transactions that involve product branding by manufacturers, distributors, and retail merchants (collectively, “vendors”), user information, or the aggregation of products across catalogs. This poses a challenge to traditional online shopping applications which are usually centered around navigation of a product catalog for an individual vendor. A user is usually forced to browse catalogs of different vendors before a purchasing decision can be made. As a result, a majority of the user’s online shopping time is usually wasted in browsing through several vendor catalogs.

Additionally, conventional shopping applications do not take into account a user’s specific needs or preferences. For example, if a user on a diet prefers to purchase items with low fat content, conventional online shopping applications cannot automatically accommodate the user’s preference in the online shopping process. Thus, conventional systems offer very little to facilitate or aid a user’s purchase decision or to enhance the user’s online shopping experience. From the vendor’s perspective, conventional online shopping systems offer little to influence the user’s shopping behavior in a manner which increases vendor profitability.

Thus, there is a need for an online purchase system which presents information from catalogs of several vendors, including merchants, retailers, and manufacturers, to a user in a seamless and integrated manner. It is also desired that the purchase information presented to the user be customized based on the user and vendor preferences. It is also desired that the online purchase system allow vendors to influence the shopping behavior of users. Additionally, it is desired that the delivery of such a system enable simple, and preferably fully automated, use of user and vendor information and preferences in combination to accomplish streamlined product selection, advertising and purchasing.

SUMMARY OF THE INVENTION

The present invention provides techniques for presenting purchase information to a user such that the purchase information is personalized for the online user, and at the same time allows vendors to affect the purchasing behavior of the user. According to an embodiment of the present invention, the present invention receives a request from a user to purchase an item. In response to the user purchase request, the present invention determines presentation list information and additional information

associated with the presentation list which is customized based on user preferences information and vendor preferences information accessible to the present invention. The presentation list information and the additional information is then provided to the user.

According to an embodiment of the present invention, the user preferences information includes information related to the user's brand preferences, item content preferences, cost related preferences, the user's dietary preferences, the user's health related preferences, the user's socioeconomic preferences, and other preferences. In one embodiment, the preferences are set by the user. In alternate embodiments, the preferences may be configured by a source permitted by the user to set the preferences.

10 The user preferences may also be configured based on vendor preferences. The user preferences may also be derived by mining the user's purchase history.

According to an embodiment of the present invention, the vendor preferences information includes information configured by vendors to achieve the vendors' marketing/business strategy. This information may include a vendor's promotional preferences, revenue generation related preferences, vendor-to-vendor business rules, preferences about discounts on items, and other similar preferences which enable the vendor to affect a user's shopping behavior.

15

According to an embodiment of the present invention, the presentation list information includes items which are provided to the user in response to the user's purchase request. The inclusion of an item in the presentation list information may depend on the availability of the item, and on user preferences information and vendor preferences information. In one embodiment, the presentation list information also includes priority order information which determines the order in which the presentation list items will be provided/displayed to the user.

20

According to an embodiment of the present invention, additional information may include information selectable from promotional information related to one or more items in the presentation list information, information about items which are complementary to one or more items in the presentation list information, information about items which are substitutes of one or more items in the presentation list information, information about how one or more items in the presentation list information relate to the user preferences information, and information about how one or more items in the presentation list information relate to the vendor preferences information.

25

30

The foregoing, together with other features, embodiments, and advantages of the present invention, will become more apparent when referring to the following specification, claims, and accompanying drawings.

5 BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a simplified block diagram of a distributed computer network which may incorporate an embodiment of the present invention;

Fig. 2 is a simplified block diagram of an exemplary computer system which may incorporate an embodiment of the present invention;

10 Fig. 3 is a simplified flow chart depicting the various steps performed by a user system and a SSPS according to an embodiment of the present invention;

Fig. 4 is a simplified block diagram of the various modules and associated resources accessible to SSPS according to an embodiment of the present invention; and

15 Figs. 5-9 depict various user interfaces for displaying preferences information, presentation list information, and additional information according to embodiments of the present invention.

DESCRIPTION OF THE SPECIFIC EMBODIMENTS

The present invention combines and manages a plurality of user and
20 vendor sets of information to present a purchase solution acceptable to and personalized for the online user, and at the same time acceptable to and supportive of the vendor's merchandising methods. Fig. 1 is a simplified block diagram of a distributed computer network 10 which may incorporate an embodiment of the present invention. Computer network 10 includes a number of computer systems 12, 14, and 20 coupled to a
25 communication network 16 via a plurality of communication links 18. According to the teachings of the present invention, the computer systems include at least one user system 12, a vendor system 14, and a shopping services provider system (SSPS) 20 coupled to communication network 16.

Communication network 16 provides a mechanism for allowing the
30 various components of computer network 10 to communicate and exchange information with each other. Communication network 16 may itself be comprised of many interconnected computer systems and communication links. Communication links 18 may be hardwire links, optical links, satellite or other wireless communications links, wave propagation links, or any other mechanisms for communication of information.

While in one embodiment, communication network 16 is the Internet, in other embodiments, communication network 16 may be any suitable communication network. Distributed computer network 10 depicted in Fig. 1 is merely illustrative of an embodiment incorporating the present invention and does not limit the scope of the invention as recited in the claims. One of ordinary skill in the art would recognize other variations, modifications, and alternatives.

Computer systems, such as those depicted in Fig. 1, are characterized as “clients” or “servers” depending on the role the computer systems play with respect to requesting information or providing information. Client computers are computers that typically request information from a server computer which provides the information. Server systems are typically responsible for receiving information requests from client systems, performing processing required to satisfy the requests, and for forwarding the results corresponding to the information requests back to the requesting client systems. The processing required to satisfy a client request may be performed by a single server or may alternatively be delegated to other servers connected to communication network 16. A computer system may however act both as a client and a server depending on whether the computer system is requesting or providing information.

User system 12 is typically a client system which allows users to access resources distributed within computer network 10. In an Internet and World Wide Web (WWW) environment, the resources are typically stored in the form of hypertext documents called “web pages” which can be accessed and read by users of the Web. A web page may incorporate any combination of text, graphics, audio and video content, software programs, and other data. Web pages may also contain hypertext links to other web pages. Web pages are typically stored on servers coupled to communication network 16. Each web page is uniquely identified by an address called a Uniform Resource Locator (URL) that enables users to access the web page.

Users typically access web pages using a “web browser” program executing on client user system 12. In order to access a web page, the user typically provides URL information to the browser, either directly or indirectly, and the browser responds by retrieving the web page corresponding to the URL information, and displaying it to the user on user system 12. Examples of browsers include the Internet Explorer browser program provided by Microsoft Corporation, and the Netscape Navigator browser provided by Netscape Corporation, and others. According to the teachings of the present invention, a user may use a browser executing on user system 12

to access shopping services provided by SSPS 20 which enhance the user's online shopping experience. A user typically accesses the shopping services by accessing one or more web pages offering the shopping services according to the teachings of the present invention. In alternate embodiments, the user may also optionally use other systems, such as kiosks, and touch screen displays, to achieve the ends of the present invention.

In addition to enhancing a user's online shopping experience, the present invention also allows vendors of online shopping products to influence the user's purchasing behavior by providing vendor preference information to SSPS 20. The vendors may include manufacturers, retailers, online sellers, auctioneers, distributors, and other merchants who wish to sell items such as products or services via communication network 16. The vendors interact with SSPS 20 using vendor system 14, which is typically a networked system. Vendor preferences information generally includes rules and other information which allows vendors to influence the user's purchasing behavior. This information may include promotional information such as information about incentives, coupons, discounts, etc. associated with one or more items, inventory information indicating availability of the items, advertising information associated with the items, marketing information for the items, branding information associated with the items, description information for the items, and other information related to the items. Vendor preferences information may also include information including authoritative recommendations from critics of the items, collaborative information such as opinions of users who have bought the items, and information on business rules agreed to between the vendors to achieve their merchandising goals. For purposes of this application, the word "item" implies either a product, or a service.

SSPS 20 is responsible for performing the processing necessary to offer the enhanced shopping facilities according to an embodiment of the present invention. SSPS 20 generally acts as a server servicing requests received from user systems 12 and vendor systems 14. SSPS 20 also stores information used by SSPS 20 for providing services according to the present invention. The information may include user identification and preferences information, vendor preferences information, catalog information including information related to products and services offered for sale by SSPS 20, and other information related to shopping services offered in accordance with the teachings of the present invention. SSPS 20 also stores web pages (SSPS web pages) which offer the various shopping services to the user and which allow vendors to interact with SSPS 20.

Of course, computer based and Internet applications are not the sole media in which the present system may be embodied to enable electronic commerce. Services offered by the present invention may be also incorporated into or associated with product indexes within e-commerce systems or product databases, or alternatively be associated with content in other media sources from which product information may be adapted, derived or otherwise associated in order to permit users to select and/or specify purchase of items from such media types. Examples of such media sources include printed text media, such as newspapers, magazines, books, etc., "print" images media, such as posters, etc., audio media, such as radio, music, drama, etc., video media, such as movies, television, etc., animation media, such as cartoons, etc., games, Virtual Reality Modeling Language (VRML) media type, and other types of mixed media.

Additionally, SSPS 20 provides services for processing a user's purchase request, services for configuring purchase information satisfying the user's purchase request, and services for communicating the customized purchase information to the user. According to the teachings of the present invention, the customized purchase information is generated based on the user's preferences and vendor preferences accessible to SSPS 20. The user preferences information may be provided to SSPS 20 by the user, or by a source permitted by the user to provide the preferences, or may be construed by SSPS 20 based on the user's prior shopping history.

The customized purchase information includes a presentation list including items which satisfy the user's purchase request and additional information associated with the presentation list which aids the user's purchasing decision making process. The presentation list information may also include information about the priority or order in which the items in the presentation list are to be presented to the user. The presentation list and additional information are configured by SSPS 20 after taking into consideration the user preferences and vendor preferences. Accordingly, the customized purchase information is meant to reduce a user's online shopping time and thus enhance the overall shopping experience of the user. Further, when used in conjunction with vendor systems containing advertising, promotional rules and purchase information, the present invention can offer and even consummate the purchase of products without discrete/additional user input of any kind, as in a standing requisition or stocking order for replenishing supplies in a restaurant, or in maintaining a specific inventory of dietary items at a specific price point or at a specific purchase unit size for a family's pantry.

Fig. 2 is a simplified block diagram of an exemplary computer system 24 which may incorporate embodiments of the present invention. Computer system 24 typically includes at least one processor 28 which communicates with a number of peripheral devices via bus subsystem 26. These peripheral devices may include a storage subsystem 44, comprising a memory subsystem 36 and a file storage subsystem 42, user interface input devices 34, user interface output devices 32, and a network interface subsystem 30. The input and output devices allow user interaction with computer system 24. The users may be humans, computers, other machines, applications executed by the computer systems, processes executing on the computer systems, and the like.. Network interface subsystem 30 provides an interface to outside networks, including an interface to communication network 16, and is coupled via communication network 16 to corresponding interface devices in other client and server computer systems.

User interface input devices 34 may include a keyboard, pointing devices such as a mouse, trackball, touchpad, a graphics tablet, a scanner, a touchscreen incorporated into the display, audio input devices such as voice recognition systems, microphones, and other types of input devices. In general, use of the term “input device” is intended to include all possible types of devices and ways to input information into computer system 24 or onto computer network 16.

User interface output devices 32 may include a display subsystem, a printer, a fax machine, or non-visual displays such as audio output devices. The display subsystem may be a cathode ray tube (CRT), a flat-panel device such as a liquid crystal display (LCD), or a projection device. The display subsystem may also provide non-visual display such as via audio output devices. In general, use of the term “output device” is intended to include all possible types of devices and ways to output information from computer system 24 to a user or to another machine or computer system.

Storage subsystem 44 stores the basic programming and data constructs that provide the functionality of the various systems embodying the present invention. For example, databases and modules implementing the functionality of the present invention may be stored in storage subsystem 44. These software modules are generally executed by processor 28. In a distributed environment, the software modules and the data may be stored on a plurality of computer systems coupled to communication network 16 and executed by processors of the plurality of computer systems. Storage subsystem 44 typically comprises memory subsystem 36 and file storage subsystem 42.

Memory subsystem 36 typically includes a number of memories including a main random access memory (RAM) 40 for storage of instructions and data during program execution and a read only memory (ROM) 38 in which fixed instructions are stored. File storage subsystem 42 provides persistent (non-volatile) storage for program and data files, and may include a hard disk drive, a floppy disk drive along with associated removable media, a Compact Digital read Only Memory (CD-ROM) drive, an optical drive, or removable media cartridges. One or more of the drives may be located at remote locations on other connected computers coupled to communication network 16.

Bus subsystem 26 provides a mechanism for letting the various components and subsystems of computer system 24 communicate with each other as intended. The various subsystems and components of computer system 24 need not be at the same physical location but may be distributed at various locations within distributed network 10. Although bus subsystem 26 is shown schematically as a single bus, alternate embodiments of the bus subsystem may utilize multiple buses.

Computer system 24 itself can be of varying types including a personal computer, a portable computer, a workstation, a computer terminal, a network computer, a television, a mainframe, or any other data processing system. Due to the ever-changing nature of computers and networks, the description of computer system 24 depicted in Fig. 2 is intended only as a specific example for purposes of illustrating the preferred embodiment of the present invention. Many other configurations of computer system 24 are possible having more or less components than the computer system depicted in Fig. 2. Client computer systems, for example, user system 12, and server computer systems, for example, SSPS 20, generally have the same configuration as that of computer system 24, with the servers typically having more storage capacity and computing power than the client systems.

Fig. 3 is a simplified flow chart 50 depicting the various steps performed by user system 12 and SSPS 20 according to the teachings of the present invention. Flow chart 50 is generally initiated when a user accesses one or more web pages provided by SSPS 20 (step 51). The user may also optionally enter user identification information. The user identification information is generally a unique identifier which is assigned to the user by SSPS 20 when the user first registers to use services provided by SSPS 20. The user identification information enables SSPS 20 to uniquely identify the user and to customize the purchase information provided to the user. If the user is accessing the

services provided by SSPS 20 for the first time, SSPS 20 may assign user identification information to the user as part of step 51.

The user may then optionally enter user preferences or user profile information (step 52). The user profile information may also be entered before-hand in an unrelated process, such as during user configuration, during registration of a new account, etc. The user preferences may also be collected without the user's direct participation by mining the user's purchase data history. The user may also permit other sources to set the user preferences. For example, the user's diet preferences may be set by a "Weight Watchers" program, or by the user's spouse who wishes to uniformly monitor the family's diet and purchase of foods.

The preference information may be related to items which the user presently intends to purchase, or to items which the user intends to purchase in the future, or may identify other user-specific preferences. The user preferences information generally includes brand preference information which captures the user's brand preferences. The user may specify one or more preferred brands for an item with relative priority among the brands. According to the priority, a lower priority brand may be used to satisfy the user's purchase request when a higher priority brand is not available. The user may also indicate interest in specific brand names. The brand preference information may also include, or default to, brands favored by vendors for promotion purposes, etc. The vendor preferences are typically indicated by the vendor as part of vendor preferences information which is provided to SSPS 20 by the vendors.

User preferences information may also include information about the user's other preferences. These preferences may include the user's cost related preferences. For example, the user may be interested in buying the cheapest item which satisfies the user's purchase request. User preferences information may also include the user's preferences related to the contents of the item. For example, for a food item, the user may specify preferences related to nutritional/calorie content of the item, fat content of the item, sodium content of the item, organic/inorganic nature of the item, and other like preferences. The user may also specify health related preferences. For example, the user may specify allergic tendencies towards specific items, or specify a specific diet which the user adheres to, and other like information. The user may also indicate socioeconomic preferences. For example, the user may indicate his/her opposition to products manufactured by child laborers in third world countries. It should be apparent that the user may specify preferences related to a wide scope of topics including item

related preferences, user-specific preferences, and other preferences. The user preference information received from the user is usually stored in memory accessible to SSPS 20.

The user may then request the purchase of one or more items from SSPS 20 (step 54). The user may identify an item to be purchased using generic terms such as “butter,” or “chocolate,” and the like. Alternatively, the user may identify the item to be purchased with greater specificity by providing descriptive information about the item such as a brand name. For example, the user may provide brand name information such as “Land O’Lakes butter,” or “Mars chocolate bar,” and the like. The user may also specify items of a particular type or quality, price or amount, ingredient or other information associated with a user’s preference, brand or promotion, and the like.

The information entered by the user including purchase request information, user identification information, and optionally user preferences information, is then communicated from user system 12 to SSPS 20 via communication network 16 (step 56). This information is then received by SSPS 20 (step 58). If the information received from the user contains user preference information, SSPS 20 stores the preferences information in a database or memory accessible to SSPS 20 (step 60). SSPS 20 then proceeds to process the user’s purchase request.

SSPS 20 uses the item information provided by the user to determine purchasable items which satisfy the user’s purchase request and which are available to be purchased by the user (step 62). This typically includes determining one or more purchasable items based on the item information provided by the user, and then determining the availability of the purchasable items. SSPS 20 performs the item information to purchasable item mapping by accessing mapping information which maps generic item descriptions to corresponding purchase units. For example, the generic term “butter” may be mapped to purchase units including butters manufactured by Land O’Lakes, Challenge, and other manufacturers. SSPS 20 may also use the mapping information to determine the different varieties of items identified under a particular brand/manufacturer name. For example, SSPS 20 may determine that butters manufactured by Land O’Lakes include regular butter, unsalted butter, 50% less fat light butter, and the like. SSPS 20 may also determine the smallest quantity of the purchasable items which satisfy the user’s purchases request. For example, if the user has requested a ½ lb. package of butter, SSPS 20 may determine that unsalted Land O’Lakes butter is available in packaging sizes of 1 lb., 2 lbs., and 4 lbs., and thus the smallest package of butter which satisfies the user request is 1 lb. The 1 lb. Land O’Lakes butter may

accordingly be included in the list of purchasable items. In this manner, SSPS 20 determines a list of purchasable items corresponding to the user's purchase request. It should be apparent that SSPS 20 may also use other information to determine the list of purchasable items.

5 Having determined the purchasable items corresponding to the user purchase request, SSPS 20 then determines the availability of the purchasable items by accessing catalog information for the various vendors. The catalog information generally contains a list of items offered for sale by the vendors and other information related to the items such as the cost for the items, the availability of the items, inventory information
10 related to the items, and the like. SSPS 20 uses the catalog information to trim down the list of purchasable items to include items which are available (or in stock) to be purchased by the user.

 SSPS 20 then determines a presentation list from the list of available purchasable items determined in step 62 (step 64). The presentation list includes items
15 which will be presented for selection to the user in response to the user's purchase request. The presentation list may include all the items from the list of available items or a smaller subset thereof. According to the teachings of the present invention, the inclusion or exclusion of one or more items in the presentation list is influenced by both the user preferences and the vendor preferences. For example, items in the available item
20 list which do not meet or match one or more user preferences may not be included in the presentation list. In this manner, the presentation list is customized for a particular user.

 The vendor preferences typically include preferences or rules configured by a vendor to facilitate the vendor's business goals. These goals may include maximization of profits, promotion of new brands, and the like. For example, if a vendor
25 preference indicates maximization of profits, the items which provide higher profit margins for the vendor will be included in the presentation list. The vendor preferences may also include program/rules/preferences agreed to between the various vendors to meet their business-to-business goals. For example, the vendor preferences may include item selection rules agreed to between a manufacturer and a retailer. As previously
30 described, vendor preferences information may also include advertising information, promotional information, branding information, recommendation information, collaborative information, and other types of information. In this manner the presentation list also allows vendors to influence the purchasing behavior of the user by setting appropriate vendor preference parameters.

According to the teachings of the present invention, the presentation list also indicates the order or priority in which the items will be presented to the user. This ordering is also determined based on the user preferences and the vendor preferences information. For example, branded items in which the user has expressed a high priority will be displayed higher up the presentation list than other items in which the user has expressed a low priority or no priority. Alternatively, if the user has not expressed any product preference, the order of items may be determined using the vendor preferences. For example, a vendor wishing to promote a new brand name item may prefer that the new item be placed higher up the list than other items. In general, SSPS 20 applies the user preferences and vendor preferences to determine the list of items to be included in the presentation list to be presented to the user and the order in which the items are presented. It should be apparent, that various attributes related to user preferences and vendor preferences may be used by the present invention to determine the contents of the presentation list and their ordering.

SSPS 20 then determines additional information to be displayed to the user along with the presentation list (step 66). The additional information is also determined based on the user preferences and vendor preferences and other information accessible to SSPS 20. For the items included in the presentation list, the additional information may indicate information about the items in relation to the user preferences. For example, the additional information may indicate whether one or more items violate or do not match the user's preferences or alternatively if one or more items match the user's preferences. For example, the additional information may indicate if a particular food item displayed in the presentation list has a greater calorie content than that preferred by the user. The additional information may also include information provided by the vendor and associated with one or more items included in the presentation list. This information may include promotions associated with one or more items, coupons/discounts associated with one or more items, item advertisements and photographs for the items, special deals offered by the vendor, and the like.

The additional information may also include comparative cost pricing information and customer reviews for items in the presentation lists provided by other users/purchasers. The additional information may also include information on other items which are not included in the presentation list but which are complementary to the items included in the presentation list. For example, if the presentation list includes a milk item, the additional information may provides advertisements about cookies which the

user may wish to buy along with the milk. This complementary information is usually provided by vendors and is an effective tool for influencing the purchasing behavior of the user. The additional information may also include information on other items which are not included in the presentation list but which are substitutes to the items included in the presentation list. In addition, the additional information may include information about recipes, books, etc. related to the presentation list contents. It should be apparent that various other types of information may also be included in the additional information. Accordingly, the presentation list and the additional information not only help the user by providing information pertinent to the user, but also allow vendors to influence the user's purchasing behavior.

The presentation list information along with the additional information is then transmitted to the requesting user system by SSPS 20 (step 68). User system 12 then outputs the information received from SSPS 20 to the user. The information is typically displayed on a web page using a browser executing on user system 12. It should be apparent that, in alternate embodiments of the present invention, the information may be provided to the user using alternate formats such as a text file, a graphics image, an audio recording, a video recording, or the like.

Fig. 4 is a simplified block diagram of the various modules and associated resources accessible to SSPS 20 according to an embodiment of the present invention. The modules may be implemented as software or in hardware or combinations thereof. The set of modules that perform the processing to provide enhanced and user-customized purchase information includes a communication module 80, a request analyzer module 82, a item mapper module 84, and a preferences application module 86.

The various resources used by the modules include a generic/purchase unit mapping database 88, a catalog database 90, a vendor preferences database 92, and a user preferences database 94. The various databases depicted in Fig. 4 are typically stored in memory or in a location accessible to SSPS 20. In a specific embodiment of the present invention, these databases are locally accessible to SSPS 20. In alternate embodiments of the present invention, the databases may be distributed within computer network 10 and be accessed by SSPS 20 via communication network 16.

Generic/purchase unit mapping database 88 stores information to facilitate mapping a generic item to a purchasable item. Catalog database 90 stores catalog information received from the vendors. The catalog information may include information about items offered for sale by the vendors, pricing and promotional information for the

items, inventory information for the items, and other information describing or related to the items.

Vendor preferences database 92 stores the vendors' preferences. The vendor preferences may include rules set by the vendors related to the sale of the items.

5 The vendor preferences may also include preferences to influence the purchasing behavior of the user. These preferences may include advertising information, promotional information, branding information, recommendation information, collaborative information, merchandising rules et up by the vendors, and other types of information.. Vendor preferences database 92 may also store business-to-business rules
10 agreed to between the vendors, for example, between manufacturers and retailers. The vendor may be allowed to view and update information stored in generic/purchase unit mapping database 88, catalog database 90, and vendor preferences database 92.

User preferences database 94 stores user preferences information. The user preferences may be explicitly specified by the user, for example during step 54
15 depicted in Fig. 3. Alternatively, the user references may be implicitly inferred by SSPS 20 from the user's existing loyalty card program, or from the user's prior shopping history. Additionally, the preferences may be configured by a source permitted by the user. The preferences information is generally stored in the form of a profile for each user. In a specific embodiment, a user's profile generally contains brand preference
20 information capturing the user's brand preferences and relative priorities. A user's profile also stores other user-specific preferences such as cost preferences, socioeconomic preferences, content based preferences, and the like. A user's profile may also store user identification information. A user may be allowed to view and update information stored in user preferences database 94.

25 Communication module 80 handles communication of information between user systems 12 and SSPS 20, and between vendor systems 14 and SSPS 20. In the inbound direction, communication module 80 receives information from user systems 12 and vendor systems 14, converts the information into a format suitable for processing by SSPS 20, and then forwards the formatted information to request analyzer module 82
30 for further processing. Information received from user systems 12 may include requests to update/store preference information for the users, requests to purchase one or more items, requests to browse web pages provided by SSPS 20, and other like information. Information received from vendor systems 14 may include requests to store/update

vendor preferences, catalog information from the vendors, information about promotions, discounts, etc. associated with the items being offered for sale, and other like information.

In the outbound direction, communication module 80 receives presentation list information and additional information from preferences application module 86,
5 converts the information into a format suitable for communication via communication network 16, and transmits the formatted information to user systems 12. Communication module 80 may also format and transmit vendor related information to vendor systems 16. With regards to flow chart 50 depicted in Fig. 3, communication module 80 performs functions associated with steps 58 and 68.

10 Request analyzer module 82 determines the nature and source of the information received by SSPS 20 and which is forwarded to the request analyzer module 82 by communication module 80. Information received from vendor systems 16 typically includes catalog information, vendor preferences information, or mapping information for mapping a generic item to a purchasable item. Accordingly, if the source of the received
15 information is a vendor system, request analyzer module 82 updates the appropriate database(s) with the information.

Information received from a user system may include user preferences or requests to purchase one or more items. If the information contains user preferences, request analyzer module 82 stores the user preferences in user preferences database 94. If
20 the information contains a purchase request, request analyzer logic 82 forwards the request to item mapper module 84 for further processing.

Item mapper module 84 then determines purchasable items which satisfy the user's purchase query and which are available to be purchased by the user. As previously described, this typically involves determining one or more purchasable items
25 based on the item information provided by the user, and then determining the availability of the purchasable items. Item mapper module 84 uses information stored in generic/purchase unit mapping database 88 to determine a list of purchasable items corresponding to the user purchase request. Item mapper module 82 then uses information stored in catalog database 90 to determine the availability of the purchasable
30 items. The list of purchasable and available items satisfying the user's purchase request is then forwarded to preferences application module 86 for further processing. With regards to flow chart 50 depicted in Fig. 3, item mapper module 84 performs functions associated with step 62.

Preferences application module 86 configures the presentation list and additional information associated with the presentation list to be output to the user. Preferences application module 86 uses information stored in vendor preferences database 92 and user preferences database 94 to configure the presentation list and the additional
5 information. As previously described, the presentation list may include all the items from the list of available items or a smaller subset thereof. The inclusion or exclusion of one or more items in the presentation list is influenced by both the user preferences and the vendor preferences. Preferences application module 86 also determines the order in which the items in the presentation list will be presented to the user. The presentation list
10 information and additional information is forwarded by preferences application module 86 to communication module 80 for transmission to the requesting user system. With regards to flow chart 50 depicted in Fig. 3, preferences application module 86 performs functions associated with steps 64 and 66.

Figs. 5-9 depict various user interfaces for displaying preferences
15 information, presentation list information, and additional information according to embodiments of the present invention. Fig. 5 depicts a user interface 100 displaying a user's brand preferences related to various categories of items. As shown, the categories include a groceries category 102-a, a dairy category 102-b, a freezer items category 102-c, and a household pet category 102-d. Several other categories may also be included.
20 For each category of items, a user may define brand preferences for items belonging to that category. For example, for items butter, cheese, and yogurt belonging to dairy category 102-b, user has configured brand preferences of Land O'Lakes butter 104-a, Kraft cheese 104-b, and Yoplait yogurt 104-c, respectively. Similarly, brand preferences may be configured for items in other categories. The brand preference information is
25 stored as part of user preferences information. User interface 100 also shows a button "Edit Brands" 106 which allows a user to edit user-specific brand preferences information. A user may also be allowed to edit/configure other aspects included in the user preferences information.

Fig. 6 depicts an exemplary user interface 110 displaying a presentation
30 list 112 which has been customized for a user based on the user's preferences information. In this example, the user has requested purchase of butter, sugar, and molasses (described using generic descriptions). Accordingly, presentation list 112 includes three sub-presentation lists 112-a, 112-b, and 112-c for items butter, sugar, and molasses, respectively. Each of the presentation list displays items which are available

for purchase by the user and which are selected for display to the user based on the user's preferences and vendor preferences information. For each of the items, the minimum purchasable quantity of the items 114 which satisfies the user request is also displayed.

In this example, the user has indicated a lowest price preference, and also a brand preference for Land O'Lakes butter and C&H sugar. Accordingly, the items in presentation list 112-c for molasses are listed in ascending price order. However, since the user has specifically indicated a brand preference for butter and sugar, items belonging to the user's preferred brands (Land O'Lakes butter and C&H sugar) are listed higher up in presentation lists 112-a and 112-b. The lists are also ordered based on the pricing information for the other items. Presentation list 112 is thus customized for the user. User interface 110 also displays buttons 116 allowing the user to select one or more items from presentation list 112 for purchase. Various other selection techniques may also be provided.

Fig. 7 depicts an exemplary user interface 120 displaying a presentation list 122 and additional information which has been customized based on user preferences information and vendor preferences information. In this example, the user has requested purchase of a cereal. The user has also configured the user preferences information to indicate a brand preference for Kellogg's cereal. Accordingly, presentation list 122 lists Kellogg products at the top of list 122. user interface 120 also displays additional information associated with presentation list 122. The additional information includes complementary information about products which may be used along with the cereal. For example, suggestive complementary information 124 advertising milk is displayed. Additional information such as milk advertising 124 is typically based on vendor preferences configured by a retailer and is thus not manufacturer specific. Such additional information is aimed at increasing the retailer's income stream by enticing the user to buy the complementary items. User interface 120 also displays descriptive information about the displayed items such as information 130-a through 130-j. This information is manufacturer specific and usually based on vendor preferences configured by a manufacturer. User interface 120 also display additional information 126 and 128 about other products based on preferences listed by other vendors.

Fig. 8 depicts another exemplary user interface 132 displaying presentation list 140 wherein the ordering of items in the presentation list is influenced by vendor preferences information. As shown, items manufactured by vendor Kellogg have priority placement over items manufactured by vendor General Mills. This may be due to vendor

preferences information which may indicate an agreement entered into between Kellogg and providers of SSPS services which gives priority to items manufactured by Kellogg. User interface 132 also displays additional information associated with presentation list 140. This includes information about complementary products such as Sunmaid raisins 134, and information about other Kellogg products 136.

Agreements entered into between vendors and SSPS providers may also indicate exclusive display of the vendor's products. For example, user interface 144 depicted in Fig. 9 only displays items 146 manufactured by McCormick-Schilling for ground spices--items from other brands are not included. Further, since the items are part of a cookie recipe, user interface 144 displays additional complementary information 148 suggesting purchase of milk. In this manner, vendors can affect the shopping behavior of users using services of SSPS 20.

The user interfaces depicted in Figs. 5 through 9 are merely illustrative of different embodiments of the present invention and do not limit the scope of the invention as recited in the claims. One of ordinary skill in the art would recognize other variations, modifications, and alternatives.

Although specific embodiments of the invention have been described, various modifications, alterations, alternative constructions, and equivalents are also encompassed within the scope of the invention. The described invention is not restricted to operation within certain specific data processing environments, but is free to operate within a plurality of data processing environments, such as a distributed computer network environment, a single stand-alone computer system environment, or other computing environments. Additionally, although the present invention has been described using a particular series of transactions and steps, it should be apparent to those skilled in the art that the scope of the present invention is not limited to the described series of transactions and steps. For example, in flowchart 50 depicted in Fig. 3, steps 62, 64, and 66 may be combined into one step wherein SSPS 20 determines the presentation list and additional information associated with the presentation list directly from the item information provided by the user.

The data structures for the storage and processing of user and vendor preferences information are preferably tables in a relational database. However, other forms of storing the information may also be used. There is inherent flexibility in creating the logic, system flow, and data structures necessary to program the invention. Data structures and values upon which calculations are performed may be explicit,

derived from other data, imported from other sources, or result from program calculations or logical operations, all without departing from the spirit or limiting the scope of the invention. The techniques used by the present invention for the various tasks, including the task of configuring presentation lists and the additional information, may also be
5 expressed explicitly and/or derived without departing from the spirit of or limiting the scope of the invention.

Further, while the present invention has been described using a particular combination of hardware and software, it should be recognized that other combinations of hardware and software are also within the scope of the present invention. The present
10 invention may be implemented only in hardware or only in software or using combinations thereof.

The specification and drawings are, accordingly, to be regarded in an illustrative rather than a restrictive sense. It will, however, be evident that additions, subtractions, deletions, and other modifications and changes may be made thereunto
15 without departing from the broader spirit and scope of the invention as set forth in the claims.

WHAT IS CLAIMED IS:

- 1 1. A method of providing purchase information to a user, the
2 purchase information including presentation list information and additional information
3 associated with the presentation list, the method comprising:
4 receiving a request from a user to purchase an item;
5 determining the presentation list information based on user preferences
6 information and vendor preferences information, the presentation list information
7 including a first plurality of items satisfying the user purchase request;
8 determining the additional information associated with the presentation list
9 based on the user preferences information and the vendor preferences information; and
10 providing the presentation list information and the associated additional
11 information to the user.
- 1 2. The method of claim 1 wherein:
2 determining the presentation list information comprises determining a
3 priority order for displaying the first plurality of items included in the presentation list
4 information; and
5 providing the presentation list information to the user comprises displaying
6 the first plurality of items included in the presentation list information according to the
7 priority order.
- 1 3. The method of claim 1 wherein determining the presentation list
2 information comprises:
3 determining a second plurality of items satisfying the user purchase
4 request from catalog information; and
5 determining the first plurality of items included in the presentation list
6 information from the second plurality of items based on the user preferences information
7 and the vendor preferences information.
- 1 4. The method of claim 3 wherein determining the second plurality of
2 items comprises:
3 determining purchasable items from the catalog information satisfying the
4 user purchase request; and

5 determining the second plurality of items from the purchasable items based
6 on availability information for the purchasable items.

1 5. The method of claim 4 wherein determining the purchasable items
2 from the catalog information comprises:

3 mapping the item identified in the user purchase request to at least one
4 branded item; and

5 determining a smallest purchasable item for the branded item based on the
6 user purchase request.

1 6. The method of claim 1 wherein the user preferences information
2 includes preferences selectable from a group of user preferences including brand
3 preferences, cost related preferences, item content preferences, dietary preferences, health
4 related preferences, nutritional preferences, and socioeconomic preferences.

1 7. The method of claim 1 wherein the user preferences information is
2 configured by a source permitted by the user to configure the user preferences
3 information.

1 8. The method of claim 1 wherein the user preferences information is
2 configured based on the vendor preferences information.

1 9. The method of claim 1 wherein the user preferences information is
2 determined by mining the user's previous purchase history.

1 10. The method of claim 1 wherein the vendor preferences information
2 includes preferences selectable from a group of vendor preferences including promotional
3 preferences information, advertising preferences information, business rules preferences
4 information, branding preferences information, recommendation information,
5 collaborative information, vendor-to-vendor business rules preferences information.

1 11. The method of claim 1 wherein the additional information
2 comprises information selectable from promotional information related to one or more
3 items in the first plurality of items, information about items which are complementary to
4 one or more items in the first plurality of items, information about items which are
5 substitutes of one or more items in the first plurality of items, information about how one

6 or more items in the first plurality of items relate to the user preferences information,
7 comparative pricing information for one or more items in the first plurality of items,
8 customer reviews for one or more items in the first plurality of items, and information
9 about how one or more items in the first plurality of items relate to the vendor preferences
10 information.

1 12. An online purchasing system comprising:
2 a client system coupled to a communication network; and
3 a server system coupled to the communication network, the server system
4 configured to receive a user request from the client system to purchase an item, to
5 determine presentation list information based on user preferences information and vendor
6 preferences information accessible to the server system, the presentation list information
7 including a first plurality of items satisfying the user purchase request, the server system
8 further configured to determine additional information associated with the presentation
9 list based on the user preferences information and the vendor preferences information,
10 and to provide the presentation list information and the associated additional information
11 to the client system.

1 13. The system of claim 12 wherein:
2 in order to determine the presentation list information, the server system is
3 configured to determine a priority order for displaying the first plurality of items included
4 in the presentation list information; and
5 the client system is configured to output the first plurality of items
6 included in the presentation list information according to the priority order.

1 14. The system of claim 12 wherein, in order to determine the
2 presentation list information, the server system is further configured to determine a
3 second plurality of items satisfying the user purchase request from catalog information
4 accessible to the server system, and to determine the first plurality of items included in
5 the presentation list information from the second plurality of items based on the user
6 preferences information and the vendor preferences information.

1 15. The system of claim 14 wherein, in order to determine the second
2 plurality of items, the server system is configured to determine purchasable items from
3 the catalog information satisfying the user purchase request, and to determine the second

4 plurality of items from the purchasable items based on availability information for the
5 purchasable items.

1 16. The system of claim 15 wherein, in order to determine the
2 purchasable items from the catalog information, the server system is configured to map
3 the item identified in the user purchase request to at least one branded item, and to
4 determine a smallest purchasable item for the branded item based on the user purchase
5 request.

1 17. The system of claim 12 wherein the user preferences information
2 includes preferences selectable from a group of user preferences including brand
3 preferences, item content preferences, cost related preferences, dietary preferences, health
4 related preferences, nutritional preferences, and socioeconomic preferences.

1 18. The system of claim 12 wherein the user preferences information is
2 configured by a source permitted by the user to configure the user preferences
3 information.

1 19. The system of claim 12 wherein the user preferences information is
2 configured based on the vendor preferences information.

1 20. The system of claim 12 wherein the user preferences information is
2 determined by mining the user's previous purchase history.

1 21. The system of claim 12 wherein the vendor preferences
2 information includes preferences selectable from a group of vendor preferences including
3 promotional preferences information, advertising preferences information, business rules
4 preferences information, branding preferences information, recommendation information,
5 collaborative information, vendor-to-vendor business rules preferences information.

1 22. The system of claim 12 wherein the additional information
2 comprises information selectable from promotional information related to one or more
3 items in the first plurality of items, information about items which are complementary to
4 one or more items in the first plurality of items, information about items which are
5 substitutes of one or more items in the first plurality of items, information about how one
6 or more items in the first plurality of items relate to the user preferences information,

7 comparative pricing information for one or more items in the first plurality of items,
8 customer reviews for one or more items in the first plurality of items, and information
9 about how one or more items in the first plurality of items relate to the vendor preferences
10 information.

1 23. A computer program product for providing purchase information to
2 a user, the purchase information including presentation list information and additional
3 information associated with the presentation list, the computer program product
4 comprising:
5 code for receiving a request from a user to purchase an item;
6 code for determining the presentation list information based on user
7 preferences information and vendor preferences information, the presentation list
8 information including a first plurality of items satisfying the user purchase request;
9 code for determining the additional information associated with the
10 presentation list based on the user preferences information and the vendor preferences
11 information;
12 code for providing the presentation list information and the associated
13 additional information to the user; and
14 a computer-readable storage medium for storing the codes.

1 24. The computer program product of claim 23 wherein:
2 the code for determining the presentation list information comprises code
3 for determining a priority order for displaying the first plurality of items included in the
4 presentation list information; and
5 the code for providing the presentation list information to the user
6 comprises code for displaying the first plurality of items included in the presentation list
7 information according to the priority order.

1 25. The computer program product of claim 23 wherein the code for
2 determining the presentation list information comprises:
3 code for determining a second plurality of items satisfying the user
4 purchase request from catalog information; and
5 code for determining the first plurality of items included in the
6 presentation list information from the second plurality of items based on the user
7 preferences information and the vendor preferences information.

1 26. The computer program product of claim 25 wherein the code for
2 determining the second plurality of items comprises:
3 code for determining purchasable items from the catalog information
4 satisfying the user purchase request; and
5 code for determining the second plurality of items from the purchasable
6 items based on availability information for the purchasable items.

1 27. The computer program product of claim 26 wherein the code for
2 determining the purchasable items from the catalog information comprises:
3 code for mapping the item identified in the user purchase request to at least
4 one branded item; and
5 code for determining a smallest purchasable item for the branded item
6 based on the user purchase request.

1 28. The computer program product of claim 23 wherein the user
2 preferences information includes preferences selectable from a group of user preferences
3 including brand preferences, item content preferences, cost related preferences, dietary
4 preferences, health related preferences, nutritional preferences, and socioeconomic
5 preferences.

1 29. The computer program product of claim 23 wherein the user
2 preferences information is configured by a source permitted by the user to configure the
3 user preferences information.

1 30. The computer program product of claim 23 wherein the user
2 preferences information is configured based on the vendor preferences information.

1 31. The computer program product of claim 23 wherein the user
2 preferences information is determined by mining the user's previous purchase history.

1 32. The computer program product of claim 23 wherein the vendor
2 preferences information includes preferences selectable from a group of vendor
3 preferences including promotional preferences information, advertising preferences
4 information, business rules preferences information, branding preferences information,
5 recommendation information, collaborative information, vendor-to-vendor business rules
6 preferences information.

1 33. The computer program product of claim 23 wherein the additional
2 information comprises information selectable from promotional information related to
3 one or more items in the first plurality of items, information about items which are
4 complementary to one or more items in the first plurality of items, information about
5 items which are substitutes of one or more items in the first plurality of items, information
6 about how one or more items in the first plurality of items relate to the user preferences
7 information, comparative pricing information for one or more items in the first plurality
8 of items, customer reviews for one or more items in the first plurality of items, and
9 information about how one or more items in the first plurality of items relate to the
10 vendor preferences information.

1 / 9

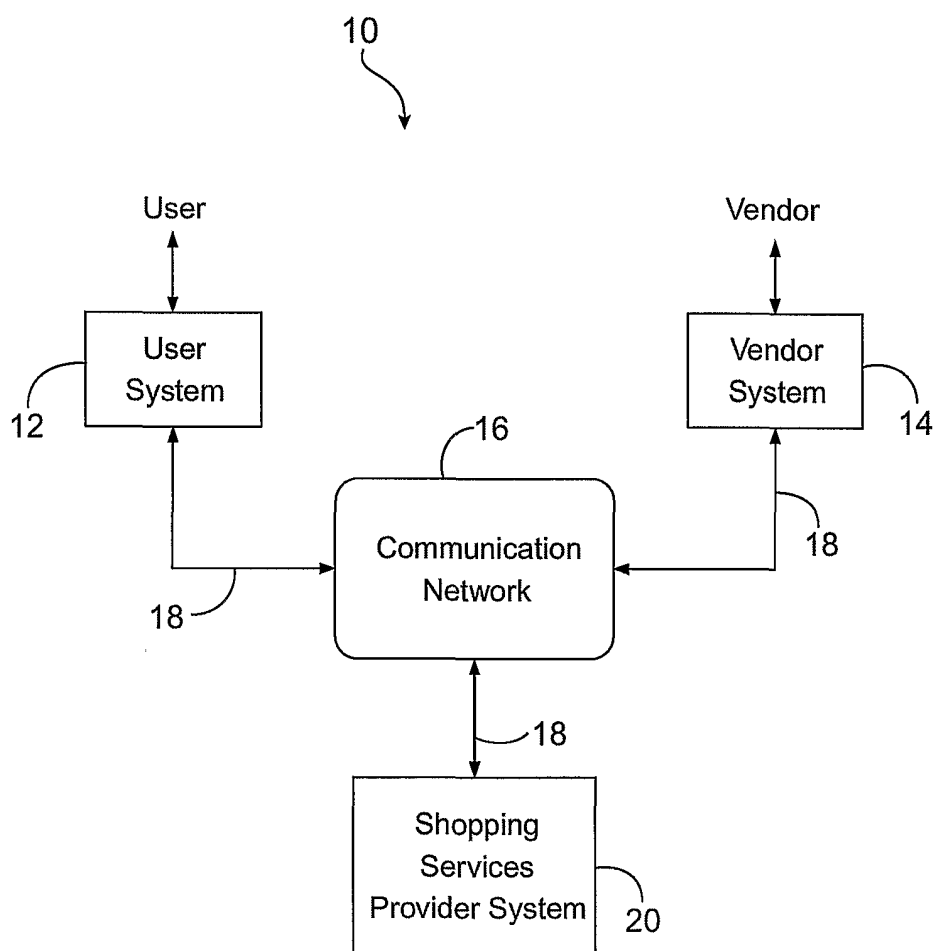


FIG. 1

2 / 9

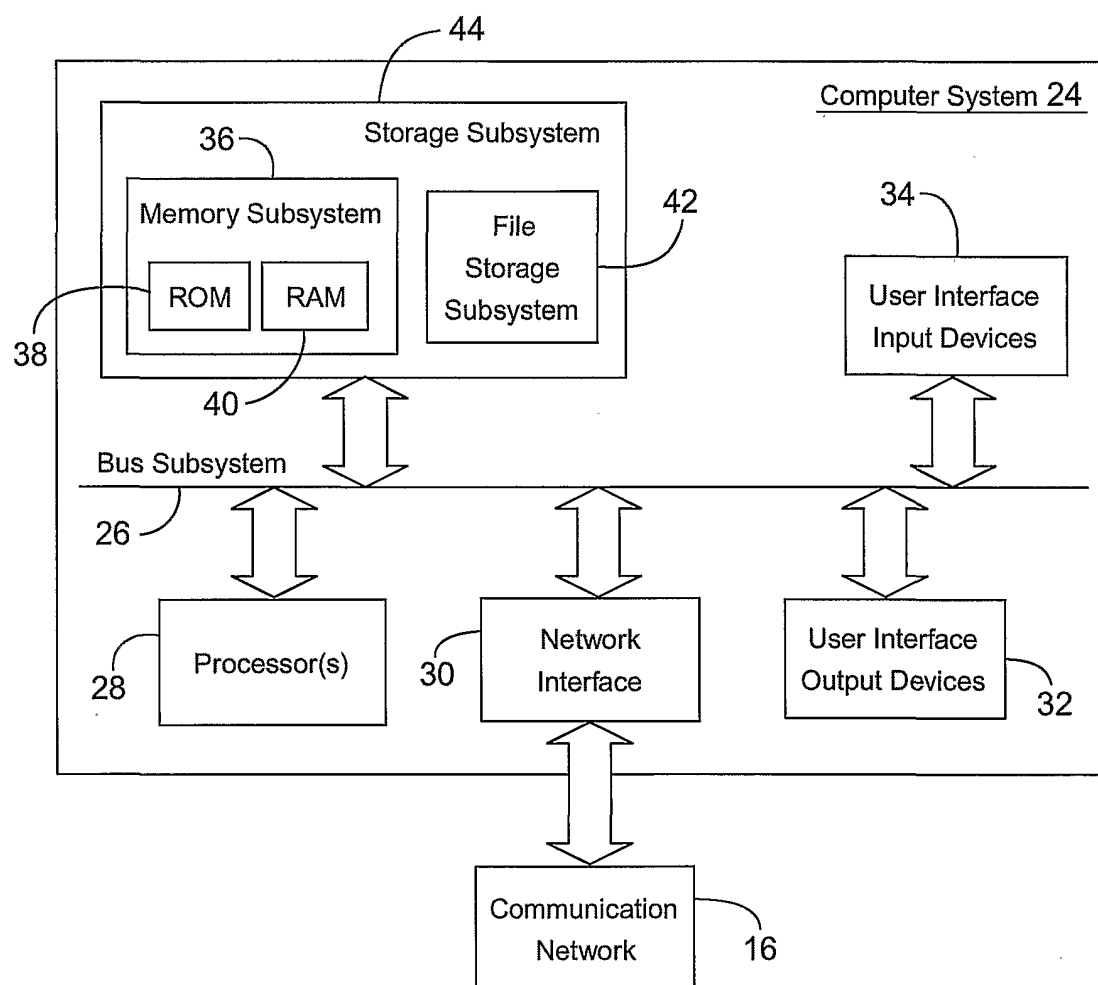


FIG. 2

3 / 9

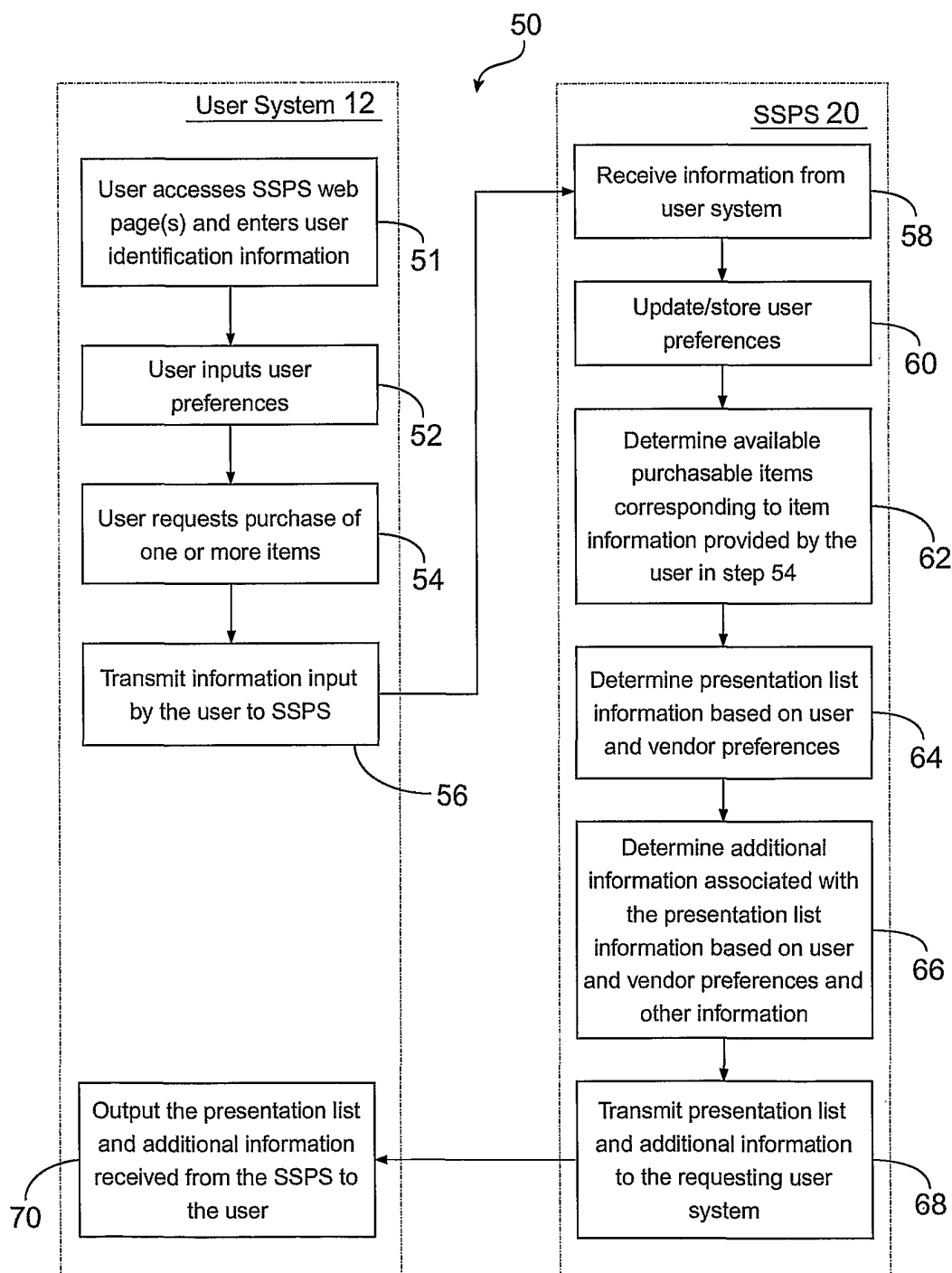


FIG. 3

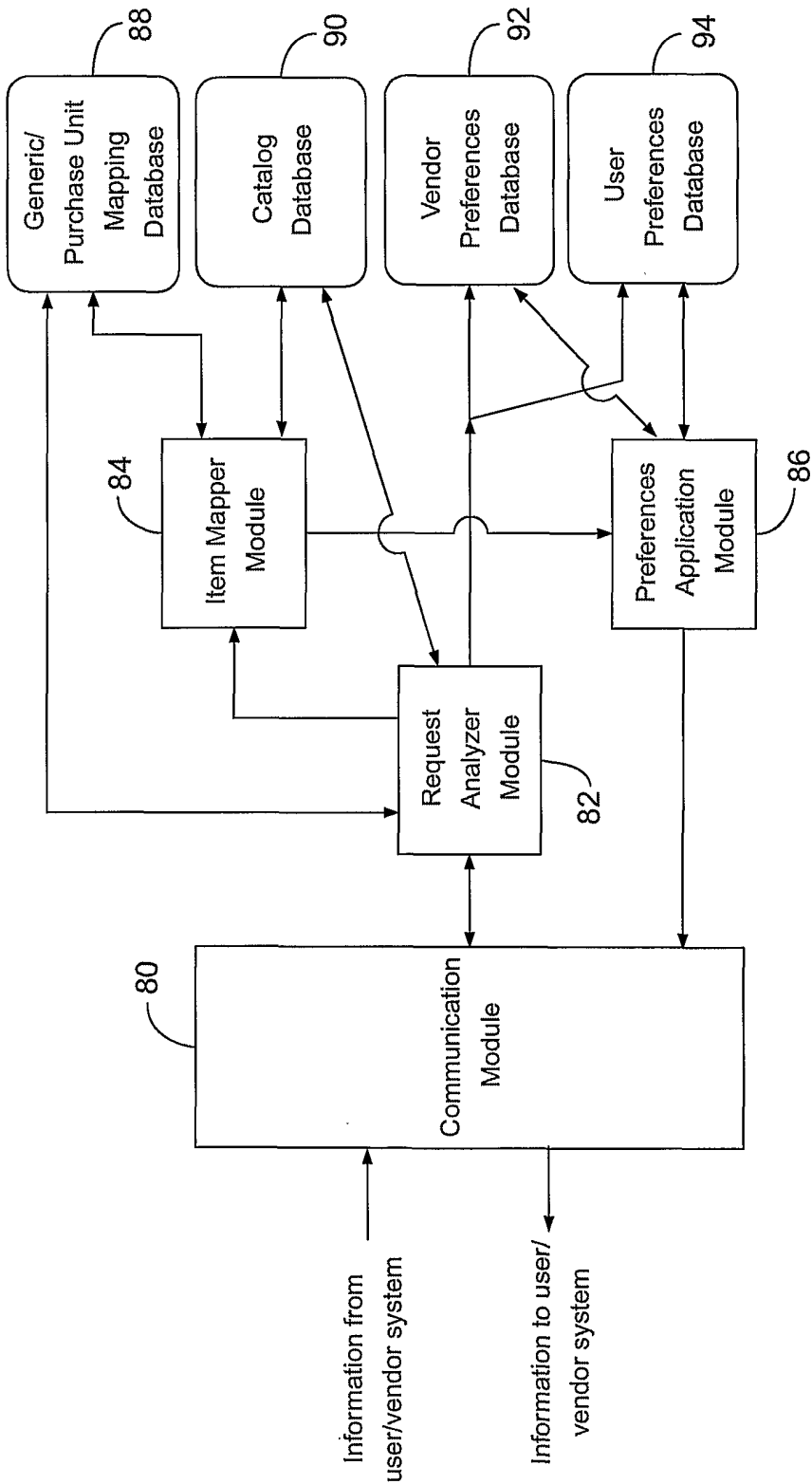


FIG. 4

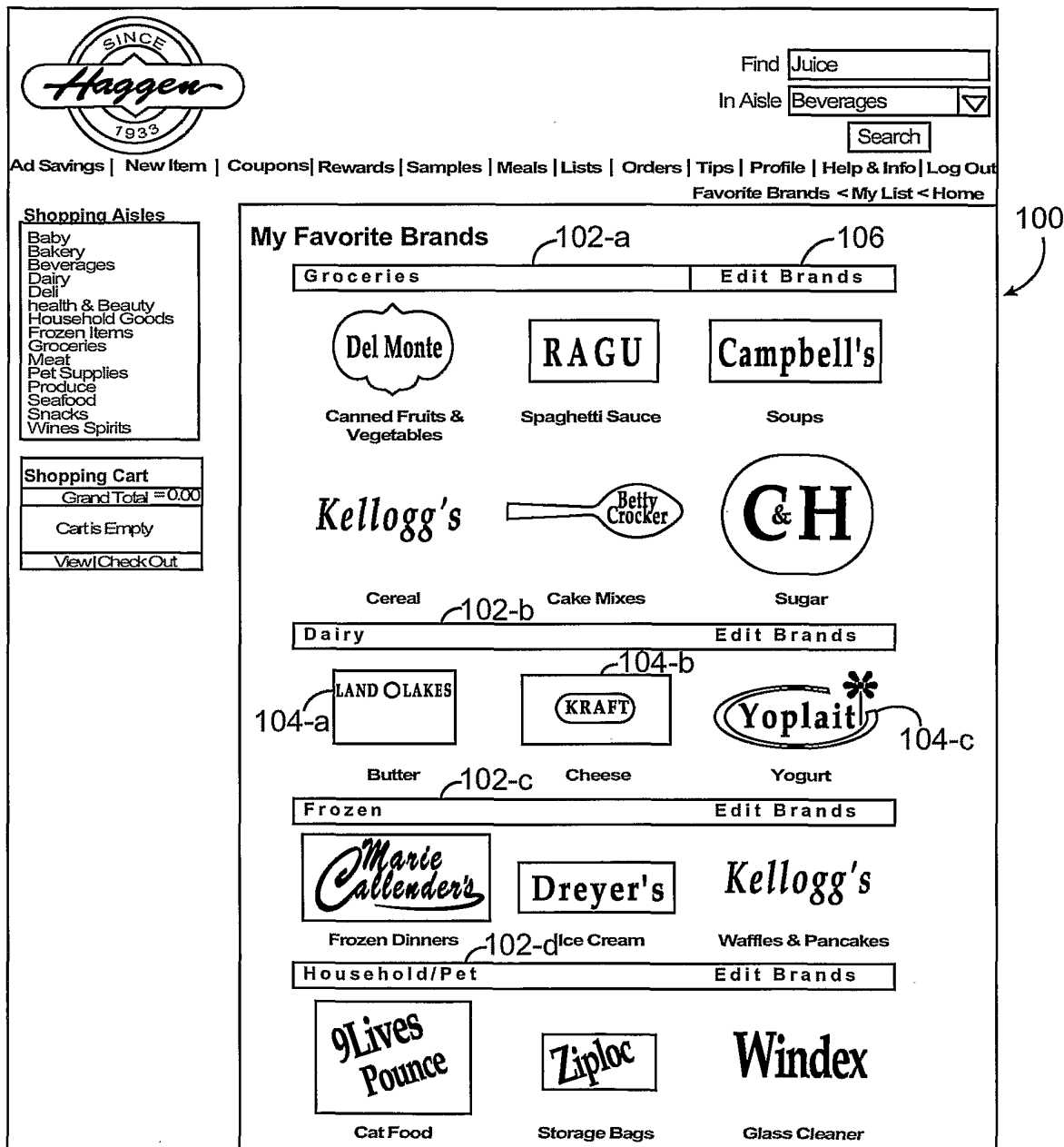



FIG. 5

6 / 9

110



Find
 In Aisle ▼

Ad Savings | New Item | Coupons | Rewards | Samples | Meals | Lists | Orders | Tips | Profile | Help & Info | Log Out
Choose Products < Gingersnaps < Dessert < Recipes < Featured Cookbooks < Meals < Home

Shopping Aisles

- Baby
- Bakery
- Beverages
- Dairy
- Deli
- Health & Beauty
- Household Goods
- Frozen Items
- Groceries
- Meat
- Pet Supplies
- Produce
- Seafood
- Snacks
- Wines Spirits

Shopping Cart

Grand Total = 0.00

Cart is Empty

[View/Check Out](#)

Gingersnaps

Choose the product you would like to use for each recipe ingredient, then choose done when you are finished

112-a




Butter - 3/4 cup (6 oz)

<input type="checkbox"/>	Land O'Lakes Butter Salted. 16 oz.	\$1.99	<input checked="" type="radio"/>
<input type="checkbox"/>	Land O'Lakes Butter Unsalted. 16 oz.	\$1.99	<input type="radio"/>
<input type="checkbox"/>	Land O'Lakes Butter Light, unsalted. 16 oz.	\$2.19	<input type="radio"/>
<input type="checkbox"/>	Challenge Butter Grade AA. 16 oz.	\$1.89	<input type="radio"/>
<input type="checkbox"/>	Challenge Butter Unsalted Grade AA. 16 oz.	\$1.89	<input type="radio"/>
<input type="checkbox"/>	Challenge Butter Butter light, 50% less fat. 16 oz.	\$1.99	<input type="radio"/>

Sugar - 1 cup (8 oz)

<input type="checkbox"/>	C&H Sugar Granulated sugar. 1lb.	\$0.59	<input checked="" type="radio"/>
<input type="checkbox"/>	Domino Sugar pure cane granulated sugar. 1lb.	\$0.55	<input type="radio"/>

Molasses - 1/4 cup (2 oz)

	Brer Rabbit Light molasses sugar. 1lb.	\$1.99	<input type="radio"/>
	Brer Rabbit Dark molasses sugar. 1lb.	\$1.99	<input type="radio"/>
	Plantation Blackstrap molasses. 15 oz.	\$2.99	<input type="radio"/>

112

112-b

112-c

FIG. 6

7 / 9

D'AG NYC
e-mpowered by ShopEaze.com

Search for Product

Shopping Cart
View Cart | Check Out
Total: \$0.00
Qty Name
Shopping Cart is Empty

Cereals

Cold Cereals

Product	Price	Qty	Add
<input type="checkbox"/> Kellogg's Corn Flakes The original and best corn flakes. 18 oz.	\$3.55	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> Kellogg's Rice Krispies Good source of 10 essential vitamins and minerals. 19 oz.	\$4.59	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> Kellogg's Raisin Bran Two scoops of raisins in every bowl 20 oz.	\$3.59	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> Kellogg's Apple Cinnamon Mini Wheats Excellent source of fiber. 16.5 oz.	\$4.59	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> Kellogg's Cocoa Crisps Excellent source of fiber. 16.5 oz.	\$3.39	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> Kellogg's Frosted Flakes There GR-R-EAT! 20 oz.	\$3.99	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> Kellogg's Special K Good source of 11 essential vitamins and minerals 18 oz.	\$5.19	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> General Mills Wheaties The breakfast of champions. 18 oz.	\$4.09	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> General Mills Frankenberry Cereal strawberryfrosted with strawberry marshmallows. 12 oz.	\$3.99	<input type="text"/>	<input type="button" value="Add"/>
<input type="checkbox"/> General Mills Chocula Cereal Low fat with chocolate marshmallows. 12 oz.	\$3.99	<input type="text"/>	<input type="button" value="Add"/>

KENDAL-JACSON

Calpha Lon

124

120

122

126

128

130-a

130-b

130-c

130-d

130-e

130-f

130-g


130-h

130-i

130-j

FIG. 7

8 / 9




Find
 In Aisle ▼

Ad Savings | New Item | Coupons | Rewards | Samples | Meals | Lists | Orders | Tips | Profile | Help & Info | Log Out
 Cereals < Home

Shopping Aisles

- Baby
- Bakery
- Beverages
- Dairy
- Deli
- Health & Beauty
- Household Goods
- Frozen Items
- Groceries
- Meat
- Pet Supplies
- Produce
- Seafood
- Snacks
- Wines Spirits



Have a Breakfast

Special
K.O.

Cereals

Cold Cereals

<input type="checkbox"/>	Kellogg's Corn Flakes The original and best corn flakes. 18 oz.	\$3.55	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	Kellogg's Rice Krispies Good source of 10 essential vitamins and minerals. 19 oz.	\$4.59	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	Kellogg's Raisin Bran Two scoops of raisins in every bowl 20 oz.	\$3.59	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	Kellogg's Apple Cinnamon Mini Wheats Excellent source of fiber. 16.5 oz.	\$4.59	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	Kellogg's Cocoa Crisps Excellent source of fiber. 16.5 oz.	\$3.39	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	Kellogg's Frosted Flakes There GR-R-EAT! 20 oz.	\$3.99	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	Kellogg's Special K Good source of 11 essential vitamins and minerals 18 oz.	\$5.19	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	General Mills Wheaties The breakfast of champions. 18 oz.	\$4.09	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	General Mills Frankenberry Cereal strawberryfrosted with strawberry marshmallows. 12 oz.	\$3.99	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	General Mills Chocula Cereal Low fat with chocolate marshmallows. 12 oz.	\$3.99	Qty <input type="text"/> <input type="button" value="ADD"/>	
<input type="checkbox"/>	General Mills Cheerios Low fat whole grain oats with brown sugar and frosting. 20 oz.	\$3.79	Qty <input type="text"/> <input type="button" value="ADD"/>	

Shopping Cart

Grand Total = 0.00

Cart is Empty


132

134

136

140

FIG. 8



e-mpowered by
ShopEaze.com

Search for Product

Shopping Cart


View Cart | Check Out

Total: \$0.00

Qty	Name
	Shopping Cart is Empty

AD SAVINGS	NEW ITEMS	COUPONS	REWARDS	SAMPLES	MEALS
LISTS	ORDERS	TIPS	PROFILE	HELP/INFO	LOGOUT

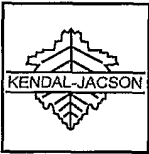
Produce	Bakery	Wines and Spirits
Meat	Dairy	Beverages
Seafood	Del	Baby
Groceries	Snacks	Pet Supplies
Frozen Items	Household Goods	Health & Beauty




Got Milk?

148

144




KENDAL-JACSON



Calpha Long

Ground Cinnamon - 1 teaspoons




McCormick-Schilling Cinnamon
Ground Cinnamon. 2.37 oz.

\$3.39

⊙

Ground Cloves - 1 teaspoons




McCormick-Schilling Cloves
Ground Cloves. 2.37 oz.

\$6.59

⊙

Ground Ginger - 1 teaspoons




McCormick-Schilling Ginger
Ground Ginger. 2.37 oz.

\$2.89

⊙

Baking Soda - 2 teaspoons




Arm and Hammer Baking Soda
Natural baking soda. 8 oz.

\$0.59

⊙


Salt - 1/4 teaspoons



Leslie Salt
Plain salt. 26 oz.

\$0.55

○



Morton Salt
Iodized salt. 26 oz.

\$0.49

○

146

FIG. 9

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/04093

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : G06F 17/60

US CL : 705/26,27

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 705/26,27

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

Please See Extra Sheet.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/20279 (NASH et al.) 05 June 1997, Abstract; pg. 3-18.	1-33
X,P	US 6,134,534 A (WALKER et al.) 17 October 2000, Abstract; fig. 1 [100, 110, 115, 150, 200, 300, 500]; fig. 3 [305, 1000, 1100, 1200, 1700, 1800]; fig. 5a [1300, 1600]; fig. 5b [120]; fig. 20a [2060]; fig. 21 [2100, 2110, 2126]; col. 2, line 56 - col. 3, line 67; col. 5, line 9 - col. 29, line 63.	1-33
X,P	US 6,141,653 A (CONKLIN et al.) 31 October 2000, Abstract; fig. 31b; col. 13, line 51 - col. 34, line 26.	1-33



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"A" document defining the general state of the art which is not considered to be of particular relevance	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"E" earlier document published on or after the international filing date	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"&" document member of the same patent family
"O" document referring to an oral disclosure, use, exhibition or other means	
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

01 MAY 2001

Date of mailing of the international search report

01 JUN 2001

Name and mailing address of the ISA/US
Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703) 305-3230

Authorized officer

VINCENT MILLIN

Telephone No. (703) 305-3900

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US01/04093

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	US 6,108,639 A (WALKER et al.) 22 August 2000; Abstract; col. 3, line 23 - col. 4, line 37.	1-33
Y,P	US 6,058,417 A (HESS et al.) 02 May 2000; Abstract; col. 2, lines 10-31; col. 3, line 3 - col. 10, line 42.	1-33
Y	US 5,842,178 A (GIOVANNOLI) 24 November 1998; Abstract; fig. 2a; fig. 2b; fig. 3; fig. 4; col. 2, line 39 - col. 3, line 25.	1-33
X	US 6,014,638 A (BURGE et al.) 11 January 2000; Abstract; col. 2 line 59 - col. 10 line 67.	1-33

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/04093

B. FIELDS SEARCHED

Electronic data bases consulted (Name of data base and where practicable terms used):

STN; DIALOG

search terms: display, screen, buyer, seller, purchaser, webpage, page, menu, option, list, presentation, customiz?,
criteria, profile?, vendor, user, client, merchant, condition, supplier