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(54) **Title:** GRAPHIC USER INTERFACE-ASSISTED SYSTEM AND METHOD FOR SELECTING A PERSONAL FRAGRANCE

(57) **Abstract:** Graphic interface-assisted systems and methods are provided for determining a fragrance personality of a specific user by statistically analyzing psychological information collected from such user, the psychological information relating to attitudes, values and lifestyles of the specific user, so as to determine the fragrance personality of the specific user with or without employing a sales associate. The systems and methods may further recommend to the user one or more fragrance products suitable for the specific user based on the fragrance personality so determined. Also provided is a method for marketing a fragrance to a specific consumer by determining the fragrance personality of the specific consumer and recommending one or more fragrances to the specific consumer based on the fragrance personality so determined with or without employing a sales associate.



# GRAPHIC USER INTERFACE-ASSISTED SYSTEM AND METHOD FOR SELECTING A PERSONAL FRAGRANCE

## 5 FIELD OF THE INVENTION

The present invention relates to a product recommendation program. More specifically, the present invention concerns a graphic user interface (GUI)-assisted system and method for selecting a personal product, such as a fragrance.

10

## BACKGROUND OF THE INVENTION

It is well-known that scents are extremely personal – not every scent suits everyone. Consumers are always looking to discovering their perfect scent - a scent which reflects their individual personality. However, the vast number of fragrance possibilities alone can make the selection process overwhelming. Moreover, consumers have neither the time nor the desire to spend all day at the fragrance counter sniffing and spraying fragrances only to have a salesperson urge them toward purchasing the newest fragrance on the market.

Therefore, an object of the present invention is to provide a user friendly system and method for revealing the fragrance personality of a user so as to enable the user to select a fragrance which is particularly suited to her/him.

A further object of the present invention is a method of selecting a product, such as a personal fragrance, which is fast, provides an enjoyable experience, and which surprisingly minimizes or even avoids sniffing and spritzing. Moreover, if desired, the selection process may be carried out in complete privacy, that is, without interaction with a sales associate.

A still further object of the present invention is to provide a marketing tool for promoting the sales of fragrance to customers.

The present invention is different from other product recommendation programs because it bases its recommendation on a user's personality traits that in turn map to a personality profile, and is therefore extensible to a wide variety of products and services.

## SUMMARY OF THE INVENTION

The present invention in one aspect relates to a GUI-assisted system for revealing the fragrance personality of a user, said system comprising:

- (1) a data entry module configured for entering into the system a data set obtained from the user, wherein the data set contains psychological information relating to attitudes, values and lifestyles of the specific user;
- 5 (2) a data processing module in communication with the data entry module, wherein the data processing module is configured for applying a statistical classification process to the data set so as to classify the fragrance personality of the specific user; and
- 10 (3) an output module in communication with the data processing module and configured for displaying the fragrance personality of the specific user as determined by the data processing module.

The data processing module may be further configured for recommending one or more fragrances which the user may find appealing based on her/his fragrance personality.

15 In another aspect, the present invention is related to a computer-readable medium comprising a code for determining the fragrance profile of a specific user, the code comprising instruction for applying a statistical classification process to a data set obtained from the specific user, so as to classify the fragrance personality of the specific user, wherein the data set comprises psychological information relating to attitudes, values and lifestyles of the specific user.

20 Yet another aspect of the present invention is related to a method of determining a fragrance personality of a specific user, comprising:

- (1) obtaining a data set from the specific user which comprises psychological information relating to attitudes, values and lifestyles of the specific user;
- 25 (2) applying a statistical classification process to said data set of the specific user for classifying the fragrance personality of the specific user; and
- (3) outputting the fragrance personality of the specific user so determined.

30 The above-mentioned psychological information of the specific user or consumer is based on the user's self-evaluation as prompted by the questions posed to the user of the app, and may be collected by different means. For example, the specific user/consumer may use an iPOD loaded with the app provided by a sales associate at a fragrance counter of a department store or the like, or she/he may use a digital kiosk display at the store. As further examples, she/he may also make use of the app downloaded onto her personal mobile or handheld

device. The statistical classification process of the present invention comprises multiple functions, each of which is associated with a specific fragrance personality, and is used to compute a classification score for a specific user. The statistical classification process employed by the present invention may employ any suitable classification technique for placing subjects into categories based on knowledge about one or more characteristics or traits inherent in the subjects. Useful classification techniques include, but are not limited to, discriminant analysis, logistic regression, naive Bayes classifier, support vector machines, quadratic classifiers, neural networks, perceptions, decision trees, Bayesian networks, hidden Markov models, and combinations thereof.

The application may be implemented in any programming language that is suitable for the platform (GUI- or computer-based system) on which the program runs. The platform may be in the context of handheld and mobile devices (*i.e.* personal digital assistants, mp3 players, mobile phones, portable videogame consoles, digital cameras, GPS devices), laptop and desktop computers, digital kiosk displays, cable or satellite television, television gaming consoles, and so forth.

The application may be run in a distributed computing environment, such as a local area network or the internet, or in a non-distributed environment, such as a stand alone kiosk. In general, the application may be implemented in a compiled or interpreted programming language, with or without the generation of object code. Preferably, the application is implemented in a programming language that supports touch screen input, and screen and printer output. The program proper makes use of control flow statements, such as selection and loop; branching structures, such as conditional and/or unconditional redirects, subroutines and termination; and interrupt algorithms, such as error handling. Various programming paradigms may be useful in implementing a program according to the present invention, however, an event driven programming approach may be preferred, in which user input triggers one or more event-handlers. Other potentially useful paradigms include object oriented, structured, imperative and functional.

Many known programming languages may be useful to implement one or more portions of the application. Particularly useful may be ActionScript, Objective-C, Java, JavaScript, PHP/MySQL, and the Microsoft.NET family of languages. Markup languages such as HTML, XML, XHTML and others may also be useful in deployment of the application. In one embodiment of the present invention, an application is implemented in Objective-C (Example 2, herein). In a further embodiment of the present invention, an application is implemented in ActionScript (Example 3, herein).

A further aspect of the present invention is related to a method for marketing a fragrance product to a specific consumer, the method comprising:

5 A method of marketing a fragrance product to a specific consumer, the method comprising:

- (1) determining a fragrance personality of a specific consumer, comprising the steps of:
  - (a) obtaining a data set from the specific consumer which comprises psychological information relating to attitudes, values and lifestyles of the specific consumer;
  - 10 (b) applying a statistical classification process to said data set of the specific consumer for classifying the fragrance personality of the specific consumer;
  - (c) outputting the fragrance personality of the specific consumer so determined; and
- 15 (2) recommending a fragrance product to the specific consumer which is consistent with the fragrance personality so determined.

Other aspects and objectives of the present invention will become more apparent from the ensuing description, examples, and claims.

20

#### BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 is a table describing the logic of the app relating to the female experience.

Figure 2 is a table describing the logic of the app relating to the male experience.

25

#### DESCRIPTION OF THE PREFERRED EMBODIMENTS OF THE INVENTION

The present invention concerns a GUI-assisted personal care product application or “app”. More particularly, the present invention relates to a Fragrance Reading app which is different from any known beauty or cosmetic application designed for personal computers or mobile devices. It is a consumer-research based business to consumer application for use by sales associates as a marketing tool, but also may be used by a consumer, with or without the input of a sales associate, to ascertain her/his perfume personality and fragrances suited to her/him.

A GUI is a type of user interface or space where interaction between humans and machines occurs which includes hardware (physical) and software (logical) components, that displays information and allows a user to interact with an electronic device with images rather than only text commands. GUIs are used, for example, in personal computer systems and devices, such as in mobile or hand-held devices, such as the Smart phone, iTouch and iPad, having a display screen with touch input and/or a miniature keyboard and which are capable of running complete operating system software. The GUI represents the information and actions available to a user through graphical elements (icons, pictures) and visual indicators such as secondary notation (position, indentation, color, symmetry, and the like) as opposed to merely text-based interfaces, typed command labels or text navigation. The actions are typically performed through direct manipulation of the graphical elements by touch of fingers or a stylus, and graphical output is displayed on the screen. A speaker associated with the GUI allows the system to produce sound.

The app may be used in a commercial setting, such as at or near a department store fragrance counter, in a variety of digital and non-digital applications. It may be used to power the logic of software applications in handheld devices, mobile device, laptop computers, desktop computers, digital kiosk displays, and the like. A consumer may also download the app to her/his personal handheld device.

The application according to the present invention uses a multi-sensory experience – a series of thought-provoking images, sounds and colors through a GUI to help reveal a consumer's true fragrance personality. Once that personality is revealed, the program may make individual fragrance recommendations. Alternatively, consumers may interface with a sales associate who, based on the perfume personality revealed by the application, may recommend a fragrance that is personally suited to the consumer.

The system and method of the present invention present a quiz, in the form of a series of provocative questions, images and/or sounds to the user, and use the answers to reveal a fragrance personality. In some embodiments of the present invention, fragrance suggestions which fit the fragrance personality, and which may appeal to a consumer, are revealed. In other embodiments of the present invention, a fragrance personality is revealed to the user who may then interact with a sales associate to obtain recommendations as to a scent or scents which best reflect the individual user's personality.

The questions, aided by the presentation of a combination of text, images, and optionally acoustics, tie together scent and emotion, and are drawn from the sciences of aromachology, psychographics and kinesthetics. The science of aromachology studies the

interrelationship between psychology and scent; that is, the affect it has on feelings, emotions and behavior, and in particular, the temporary positive feelings (*e.g.*, relaxing, energizing, and so forth) elicited by certain odors or scents via stimulation of the olfactory pathways to the brain, and aids the individual in engineering her own signature scent. Psychographics is the use of demographics to study and measure attributes relating to attitudes, values and lifestyles which influence consumer behavior. Kinesthetics concerns proprioception or the ability to sense the position and location and orientation and movement of the body and its parts. The answers to these provocative questions provide a meaningful classification of the user or consumer which guides the sales associate and/or the user or consumer herself/himself toward selecting a personal scent.

The user is thus presented with a quiz in the form of a series of text questions; each of the questions requests the user's preference or affinity on a particular subject. Non-limiting examples of questions include, but are not limited to, questions relating to the user's personal style, something the user cannot live without, the user's fantasy vacation, something the user considers a treat, the user's preferred music genre, how a fragrance makes the user feel, and an ingredient or component the user's fragrance should contain. Each question is associated with multiple images (*e.g.*, photographs), optionally further associated with acoustics, which serve as answers. The user selects a single image in response to each question. The app provides a scoring system in which each answer signifies a particular personality trait and is tallied against a selected one of several personality types. As one example, there may be three main personality types: casual, sophisticated and seductive (female)/sexy (male). At the end of the quiz the app's statistical classification process calculates the user's choices, based on the scoring system, and assigns the user to a personality type, such as one of the following:

1. casual (primary)
2. casual (primary), sophisticated (secondary)
3. casual (primary), seductive/sexy (secondary)
4. casual (primary), sophisticated, seductive (secondary)
5. casual, sophisticated (primary)
6. casual, seductive/sexy (primary)
7. sophisticated
8. sophisticated (primary), casual (secondary)
9. sophisticated (primary), seductive/sexy (secondary)
10. sophisticated (primary), casual, seductive/sexy (secondary)

11. sophisticated, seductive/sexy (primary)  
 12. seductive/sexy (primary)  
 13. seductive/sexy (primary), casual (secondary)  
 14. seductive/sexy (primary), sophisticated (secondary)  
 5 15. seductive/sexy (primary), casual, sophisticated (secondary)

Depending upon the answer tally, either one personality or a primary and a secondary personality will be revealed. Shared Primary and/or shared Secondary personalities may also be assigned. Each personality has a definition and collection of traits. Products  
 10 recommendations are made based on these personality traits. A particularly preferred embodiment of an app according to the present invention is described in further detail below.

A sales associate may present an iPOD to a customer and prompt the customer to engage in the app experience. Once the customer begins the program, it is self-guiding. (In an  
 15 alternative embodiment of the present invention, the app is provided in a kiosk setting and the entire experience is self-guiding.) When the Fragrance Reading app is launched, a splash screen image appears while the program is loading. The splash screen image may be accompanied by animation, graphics and/or sound. The image displays for a brief time before the main menu is displayed. The main menu screen then displays, providing explanatory copy  
 20 and indicating where the major controls for the app reside. For example, the splash screen may display the following text/information:

YOUR SIGNATURE SCENT IS IN THE CARDS

Using a series of provocative images and colors,  
 25 we will help you discover a scent that reflects the  
 real you.

Female    Male

What will it reveal about you?

30 History

In the iPOD and iPad versions of the app, a user may choose a desired language for the text of the app through the device's GENERAL > INTERNATIONAL > LANGUAGE menu. (In other embodiments of the present invention, *e.g.*, the digital kiosk, the app may be

compiled separately as an English version, a German version, and so forth.) Then, pressing the “home menu” button allows return to the main menu screen. Pressing the “History” button on the main menu screen opens the History/Reporting menu. Using this screen, a sales associate may access the user history for a particular handheld device or computer, the reports  
5 being arranged by date. Pressing a particular date may then display that date’s consolidated fragrance reading activity for all users – the total number of users and the types of personalities that were identified on that date. Pressing the “home menu” button will take the user back to the main menu screen. Pressing the “female or male” button launches the Fragrance Reading experience which allows the user to proceed with a female or male  
10 Fragrance Reading experience.

The total number of questions presented to the user may vary, and may be any number which the user may answer in a reasonable period of time so as to keep the user engaged and interested. For example, the number of questions may be, but is not limited to, five to ten, such as seven. Each question features a group of thumbnail photographs. Each photograph  
15 represents a particular fragrance personality category (casual, sophisticated, seductive). Based on the user’s accumulated choices, the app logic (*i.e.*, statistical classification process) will determine the user’s fragrance personality. Each question fades in and is followed by the images. A single tap on the thumbnail photograph will cause the view to zoom in and enlarge the image to the size of the screen allowing viewing of the full detail of the image. An audio  
20 (e.g., music) clip may accompany an image. The user may then press and drag the image to the left or right to view the next or previous image (*i.e.*, carousel mode). A single tap to the enlarged image will return to the question and image selection screen. A progress indicator may be displayed at the bottom of the screen which denotes to which numbered question the images refer. A double tap by the user on a particular image indicates the user’s answer to the  
25 question, records the answer and advances to the next question. A “back button” allows the user to go back to the previous question in case and select a different answer. After the final question, a screen is presented which displays all of the user’s selected responses (*i.e.*, images) as well as a “Reveal” button. When the “Reveal” button is pressed, the screen fades out and a further screen revealing the user’s personality fades in. (For the purposes of the program, the  
30 session is then regarded as completed and will be reported in the reporting area of the application.) Depending on the user’s responses, one or two screens indicating the user’s personality with accompanying definition and description will be displayed. If two screens are displayed, the first will be the Primary Personality and accompanying definition/description and the second screen will be the Secondary Personality and its accompanying

definition/description. In this case, the Primary Personality screen will include a “more” button which when pressed will advance the program to the Secondary Personality screen. On the last screen, a “home” button, when pressed, will end the session and reset the app, returning to the main menu screen. An example of the text of the final personality profile screen is:

YOUR PERFUME PERSONALITY IS  
SEDUCTIVE

Often, you are considered sexy,  
discreetly provocative, flirty,  
exotic and intriguing with some secrets.

Once the user’s fragrance profile is revealed, the user may interact with a sales associate who will suggest a fragrance or fragrances to the user which are associated with the revealed fragrance personality. In some embodiments of the present invention, the final screen may display a particular fragrance or fragrances suitable to the user’s fragrance personality.

In other embodiments of the present invention, in particular where the handheld device or computer is not the user’s own device (*e.g.*, a kiosk), the app may permit the user to email herself/himself a report describing her personality and/or suggested fragrances. In further embodiments of the present invention, the app may permit the user to subscribe to receive advance notice of future “at counter” fragrance events, and the like.

The GUI-assisted system of the present invention may include a computer, which can be either a workstation or a personal computer or handheld device, or the like. Such a computer preferably contains a data entry module, such as a keyboard or a touch-screen, to allow direct entry of a user’s psychological information by the user. The data entry module may also be a direct connection (such as USB, Firewire, or other interface) or a network connection (such as a modem or other network connections) for transmitting and receiving use-related psychological data, for example, via a portable medium such as a compact disk (CD) or a digital versatile disk (DVD) or via the internet.

The computer further contains a data processing module, such as a central processing unit (CPU), which is in communication with the data entry module. The data processing module is configured for applying the above-described statistical classification process to the user data entered through the data entry module and to hereby classify the fragrance personality of the specific user. The data processing module is more specifically under the

control of a computer-readable medium containing coded instructions for applying such statistical classification process to the user data.

5 The computer further contains an output or displaying module in communication with the data processing module for displaying the result determined, *i.e.*, the likely fragrance personality of the user. Such an output or displaying module may include the computer display screen for visually displaying the result, or a printer for printing the result, or a network connection for outputting the result to a remote location. In this manner, the present invention can determine a specific user's fragrance personality, and recommendations as to suitable fragrance products can accurately be made by a sales associate.

10 Optionally, the computer has a memory module that stores information about various fragrances suitable to different fragrance personalities. Once the fragrance personality of a specific user is determined by the data processing module, information about suitable fragrances can be retrieved from the memory module and output together with the fragrance personality determined as recommendations for the user.

15 In this manner, the present invention can recommend fragrance products to target a specific user without necessarily involving interaction of the user with a sales associate.

### EXAMPLES

20 Example 1: Sample Quiz

The app program presents a female user with a series of questions and images/sounds. The app program records each of the user's responses, and tallies each against one of the three personality categories shown in parentheses:

25 Q1: Your personal style is?

A1: Images of/intended to evoke:

1. relaxing (casual)
2. reading (sophisticated)
3. shopping (sophisticated)
- 30 4. dancing/highlife (seductive)
5. social/informal (casual)

Q2: You can't live without?

A2: Images of/intended to evoke:

1. pet/affection (casual)  
 2. art/creativity (sophisticated)  
 3. work/technology (sophisticated)  
 4. family/fun (casual)  
 5. fun in bed (seductive)

Q3: Your fantasy vacation is?

A3: Images of/intended to evoke:

1. skiing (casual)  
 2. beach (casual)  
 3. European holiday (sophisticated)  
 4. resort/yacht (sophisticated)  
 5. private escape (seductive)

Q4: Your favorite food is?

A4: Images of/intended to evoke:

1. sushi (sophisticated)  
 2. ice cream (casual)  
 3. wine/cheese (sophisticated)  
 4. burger (casual)  
 5. chocolate (seductive)

Q5: Your favorite music is?

A5: Images, accompanied by sound, of/evoking:

1. salsa/tango (seductive)  
 2. classical (sophisticated)  
 3. jazz (sophisticated)  
 4. pop (casual)  
 5. rock (casual)

Q6: Your fragrance should make you feel like?

A6: Images of/evoking:

1. fresh/new age (sophisticated)  
 2. sultry/sexy (seductive)

- 3. playful/active (casual)
- 4. intimate/formal (sophisticated)
- 5. freedom (casual)

5 Q7: Your kind of scent is?

A7: Images of/evoking:

- 1. fougere (casual)
- 2. citrus (casual)
- 3. oriental/incense (seductive)
- 10 4. chypre (casual)
- 5. floral (sophisticated)
- 6. fruity (casual)
- 7. woody (sophisticated)

15 Results are shown in Figure 1 (female experience) and Figure 2 (male experience).

Based on a quiz of seven questions, if the tally is five, six or seven in a particular category, *e.g.*, “casual”, and the tally in the other categories is zero or one, the “casual” category is assigned as the personality profile of the user. If the tally is three, four or five in a particular category, *e.g.*, “casual”, and the tally is two or more in another category, the user  
 20 will be assigned a primary personality and a secondary personality. If the highest tally is the same in two categories, a shared primary personality is assigned to the user. If the lowest tally is the same in two categories, a primary personality and a shared secondary personality are assigned to the user.

As an example, referring to Figure 1, if the tally or score for a female consumer is:

- 25 “5” in the “casual” category;
- “1” in the “sophisticated” category; and
- “1” in the “seductive” category,

the user’s Fragrance Reading personality is “casual”, and she may be presented with the following fragrances which may appeal to her based on the reading: Tommy Girl®, DKNY Be  
 30 Delicious®, and Fresh Blossom®.

As a further example, if the tally or score for the female consumer is:

- “0” in the “casual” category’
- “4” in the “sophisticated” category; and
- “3” in the “seductive” category,

the user's Fragrance Reading primary personality is "sophisticated", while her secondary personality is "seductive", and she may be presented with the certain fragrances which may appeal to her primary personality character, DKNY Red Delicious® and pureDKNY®, and a certain fragrance which may appeal to her secondary personality character, Loud for Her®.

5           The above questions are presented as examples only. Any type of questions which reflect the user's attitudes, values and lifestyles may be employed in developing the app. Other or further non-limiting examples of subjects for questions which may aid in customizing the program and delivering a user's fragrance profile may be based upon: a user's astrological information (*e.g.*, based on the month, season and year born); elements/images of sunrise and  
10       sunset which may appeal to the user and drive her/his day/night fragrance selections; elements/quality of the user's voice input to the computer or handheld device; a sporting activity preference; a presentation of photographs from which the consumer may select as similar to herself/himself; a presentation of colors (*e.g.*, warm, cold) from which the consumer may select as a preference; and so forth.

15

Example 2: iPOD code/logic

**iPod App Code excerpt (Objective-C):**

```
/*
    [returnData addObject:[NSNumber numberWithInt:casualCount]];
    [returnData addObject:[NSNumber numberWithInt:seductiveCount]];
    [returnData addObject:[NSNumber numberWithInt:sophisticatedCount]];
    [returnData addObject:[NSNumber numberWithInt:casual_seductiveCount]];
    [returnData addObject:[NSNumber numberWithInt:casual_sophisticatedCount]];
    [returnData addObject:[NSNumber numberWithInt:seductive_sophisticatedCount]];
25  */
    int total = casualCount + seductiveCount + sophisticatedCount +
    casual_seductiveCount + casual_sophisticatedCount + seductive_sophisticatedCount;
    if ([thedata isEqualToString:@"total"])
    {
30         if (sqlite3_open([[self dataFilePath] UTF8String], &database) != SQLITE_OK)
        {
            sqlite3_close(database);
            NSAssert(0, @"Failed to open database");
        }
35         char *errorMsg;
        NSString *createSQL = @"CREATE TABLE IF NOT EXISTS
        SAVEDDATAMALE (THEDATE INTEGER, THEPRIMARY TEXT, THESECONDARY
        TEXT);";
        if (sqlite3_exec(database, [createSQL UTF8String], NULL, NULL,
40         &errorMsg) != SQLITE_OK)
        {
            sqlite3_close(database);
            NSAssert1(0, @"Error creating table: %s", errorMsg);
        }
    }
}
```

```

        }

        NSString *query = @"SELECT COUNT(THEPRIMARY) FROM
SAVEDDATAMALE WHERE THEPRIMARY = ?";
5
        if ([thedata isEqualToString:@"total"])
        {
            query = @"SELECT COUNT(THEPRIMARY) FROM
SAVEDDATAMALE WHERE THEPRIMARY = ?";
10
        }
        else
        {
            query = @"SELECT COUNT(THEPRIMARY) FROM
SAVEDDATAMALE WHERE THEPRIMARY = ? AND THEDATE = ?";
15
        }
        sqlite3_stmt *statement;
        if (sqlite3_prepare_v2(database, [query UTF8String], -1, &statement, nil) ==
SQLITE_OK)
        {
20
            sqlite3_bind_text(statement, 1, [@"casual" UTF8String], -1, NULL);
            sqlite3_bind_text(statement, 2, [thedata UTF8String], -1, NULL);

            while (sqlite3_step(statement) == SQLITE_ROW)
            {
25
                casualCount2 = (int)sqlite3_column_int(statement,0);
            }
            sqlite3_finalize(statement);
        }

30
        sqlite3_stmt *statement2;
        if (sqlite3_prepare_v2(database, [query UTF8String], -1, &statement2, nil) ==
SQLITE_OK)
        {
            sqlite3_bind_text(statement2, 1, [@"sophisticated" UTF8String], -1,
35
            NULL);
            sqlite3_bind_text(statement2, 2, [thedata UTF8String], -1, NULL);

            while (sqlite3_step(statement) == SQLITE_ROW)
            {
40
                sophisticatedCount2 = (int)sqlite3_column_int(statement2,0);
            }
            sqlite3_finalize(statement2);
        }

        sqlite3_stmt *statement3;
45
        if (sqlite3_prepare_v2(database, [query UTF8String], -1, &statement3, nil) ==
SQLITE_OK)
        {
            sqlite3_bind_text(statement3, 1, [@"seductive" UTF8String], -1,
NULL);
50
            sqlite3_bind_text(statement3, 2, [thedata UTF8String], -1, NULL);

```

```

        while (sqlite3_step(statement3) == SQLITE_ROW)
        {
            seductiveCount2 = (int)sqlite3_column_int(statement3,0);
        }
5      sqlite3_finalize(statement3);
    }

    sqlite3_stmt *statement4;
    if (sqlite3_prepare_v2(database, [query UTF8String], -1, &statement4, nil) ==
10  SQLITE_OK)
    {
        sqlite3_bind_text(statement4, 1, [@"casual_seductive" UTF8String], -1,
        NULL);
        sqlite3_bind_text(statement4, 2, [thedata UTF8String], -1, NULL);
15      while (sqlite3_step(statement) == SQLITE_ROW)
        {
            casual_seductiveCount2 =
            (int)sqlite3_column_int(statement4,0);
20      }
        sqlite3_finalize(statement4);
    }

    sqlite3_stmt *statement5;
    if (sqlite3_prepare_v2(database, [query UTF8String], -1, &statement5, nil) ==
25  SQLITE_OK)
    {
        sqlite3_bind_text(statement5, 1, [@"casual_sophisticated"
        UTF8String], -1, NULL);
30      sqlite3_bind_text(statement5, 2, [thedata UTF8String], -1, NULL);

        while (sqlite3_step(statement5) == SQLITE_ROW)
        {
            casual_sophisticatedCount2 =
35      (int)sqlite3_column_int(statement5,0);
        }

        sqlite3_finalize(statement5);
40      }

    sqlite3_stmt *statement6;
    if (sqlite3_prepare_v2(database, [query UTF8String], -1, &statement6, nil) ==
    SQLITE_OK)
    {
45      sqlite3_bind_text(statement6, 1, [@"seductive_sophisticated"
        UTF8String], -1, NULL);
        sqlite3_bind_text(statement6, 2, [thedata UTF8String], -1, NULL);

        while (sqlite3_step(statement6) == SQLITE_ROW)
50      {

```

```

        seductive_sophisticatedCount2 =
(int)sqlite3_column_int(statement6,0);
    }
    sqlite3_finalize(statement6);
5      }

    /*
    [returnData addObject:[NSNumber numberWithInt:casualCount]];
    [returnData addObject:[NSNumber numberWithInt:seductiveCount]];
10    [returnData addObject:[NSNumber numberWithInt:sophisticatedCount]];
    [returnData addObject:[NSNumber numberWithInt:casual_seductiveCount]];
    [returnData addObject:[NSNumber
numberWithInt:casual_sophisticatedCount]];
    [returnData addObject:[NSNumber
15    numberWithInt:seductive_sophisticatedCount]];
    */

    int total2 = casualCount2 + seductiveCount2 + sophisticatedCount2 +
casual_seductiveCount2 + casual_sophisticatedCount2 + seductive_sophisticatedCount2;
20

    int total3 = total + total2;

    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Total",@""),NSLocalizedString(@"Female",@""),total]];
25    [returnData addObject:@""];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Casual",@""),casualCount]];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Seductive",@""),seductiveCount]];
30    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Sophisticated",@""),sophisticatedCount]];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"SeductiveAndCasual",@""),casual_seductiveCount]];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"SophisticatedAndCasual",@""),casual_sophisticatedCount]];
35    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"SophisticatedAndSeductive",@""),seductive_sophisticatedCount]];
    [returnData addObject:@""];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Total",@""),NSLocalizedString(@"Male",@""),total2]];
40    [returnData addObject:@""];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Casual",@""),casualCount2]];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Sexy",@""),seductiveCount2]];
45    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"Sophisticated",@""),sophisticatedCount2]];
    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"SexyAndCasual",@""),casual_seductiveCount2]];
50    [returnData addObject:[NSString stringWithFormat:@"%i",NSLocalizedString(@"SophisticatedAndCasual",@""),casual_sophisticatedCount2]];

```

```

        [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"SophisticatedAndSexy",@""),seductive_sophisticatedCount2]];
        [returnData addObject:@""];
        [returnData addObject:[NSString stringWithFormat:@"%i":
5  %i",NSLocalizedString(@"Total",@""),total3]];
    }else{
        if( maleModeHistory == NO){
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Casual",@""),casualCount]];
10      [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Seductive",@""),seductiveCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Sophisticated",@""),sophisticatedCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
15  %i",NSLocalizedString(@"SeductiveAndCasual",@""),casual_seductiveCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"SophisticatedAndCasual",@""),casual_sophisticatedCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"SophisticatedAndSeductive",@""),seductive_sophisticatedCount]];
20      [returnData addObject:@""];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Female",@""), NSLocalizedString(@"Total",@""),total]];
        }else{
25      [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Casual",@""),casualCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Sexy",@""),seductiveCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
30  %i",NSLocalizedString(@"Sophisticated",@""),sophisticatedCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"SexyAndCasual",@""),casual_seductiveCount]];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"SophisticatedAndCasual",@""),casual_sophisticatedCount]];
35      [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"SophisticatedAndSexy",@""),seductive_sophisticatedCount]];
            [returnData addObject:@""];
            [returnData addObject:[NSString stringWithFormat:@"%i":
%i",NSLocalizedString(@"Male",@""), NSLocalizedString(@"Total",@""),total]];
40      }
    }
    NSLog(@"%i,%i,%i,%i,%i,%i",casualCount,sophisticatedCount,seductiveCount,casua
l_seductiveCount,casual_sophisticatedCount,seductive_sophisticatedCount);
    return returnData;
45 }

```

Example 3: Touch Screen Kiosk code/logic

**Kiosk App code excerpt (XML):**

<rubric>

```

5      <solution id="1">
          <key type="0">7</key>
          <key type="1">0</key>
          <key type="2">0</key>
          <primaryTxt characteristic="casual">0</primaryTxt>
          <secondaryTxt>6</secondaryTxt>
          <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
          <fragrance
10 product_name="TOMMY">pngs/TH_50per.png</fragrance>
          <fragrance product_name="ARAMIS
ALWAYS">pngs/ALWAYS_50per.png</fragrance>
        </solution>
        <solution id="2">
15          <key type="0">6</key>
          <key type="1">1</key>
          <key type="2">0</key>
          <primaryTxt characteristic="casual">0</primaryTxt>
          <secondaryTxt>6</secondaryTxt>
20          <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
          <fragrance
product_name="TOMMY">pngs/TH_50per.png</fragrance>
          <fragrance product_name="ARAMIS
25 900">pngs/900_50per.png</fragrance>
        </solution>
        <solution id="3">
          <key type="0">6</key>
          <key type="1">0</key>
30          <key type="2">1</key>
          <primaryTxt characteristic="casual">0</primaryTxt>
          <secondaryTxt>6</secondaryTxt>
          <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
35          <fragrance
product_name="TOMMY">pngs/TH_50per.png</fragrance>
          <fragrance product_name="ARAMIS">pngs/AC-Edt-
whtBkd_b_50per.png</fragrance>
        </solution>
40          <solution id="4">
          <key type="0">5</key>
          <key type="1">1</key>
          <key type="2">1</key>
          <primaryTxt characteristic="casual">0</primaryTxt>
45          <secondaryTxt>6</secondaryTxt>
          <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
          <fragrance
product_name="TOMMY">pngs/TH_50per.png</fragrance>
50          <fragrance product_name="ARAMIS">pngs/AC-Edt-
whtBkd_b_50per.png</fragrance>

```

```

5      </solution>
      <solution id="5">
        <key type="0">5</key>
        <key type="1">2</key>
        <key type="2">0</key>
        <primaryTxt characteristic="casual">0</primaryTxt>
        <secondaryTxt characteristic="sophisticated">1</secondaryTxt>
        <fragrance
10    product_name="TOMMY">pngs/TH_50per.png</fragrance>
        <fragrance product_name="DKNY FOR
    MEN">pngs/1262_DKNYM_50per.png</fragrance>
        <fragrance product_name="ARAMIS
    900">pngs/900_50per.png</fragrance>
      </solution>
15    <solution id="6">
      <key type="0">5</key>
      <key type="1">0</key>
      <key type="2">2</key>
      <primaryTxt characteristic="casual">0</primaryTxt>
      <secondaryTxt characteristic="sexy">2</secondaryTxt>
      <fragrance product_name="ARAMIS
20    900">pngs/900_50per.png</fragrance>
      <fragrance
    product_name="KITON">pngs/ARA_50per.png</fragrance>
      <fragrance product_name="LOUD FOR
25    HIM">pngs/THL_F10_BLACK_50per.png</fragrance>
      <video fragranceID="3">flvs/TommyHillfiger_768.flv</video>
    </solution>
    <solution id="7">
30      <key type="0">4</key>
      <key type="1">2</key>
      <key type="2">1</key>
      <primaryTxt characteristic="casual">0</primaryTxt>
      <secondaryTxt characteristic="sophisticated">1</secondaryTxt>
      <fragrance product_name="NEW WEST">pngs/NEW-
35    WEST_50per.png</fragrance>
      <fragrance
    product_name="TUSCANY">pngs/TUSCANY_50per.png</fragrance>
      <fragrance
40    product_name="DEVIN">pngs/DEVIN_50per.png</fragrance>
    </solution>
    <solution id="8">
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      <key type="1">1</key>
      <key type="2">2</key>
      <primaryTxt characteristic="casual">0</primaryTxt>
      <secondaryTxt characteristic="sexy">2</secondaryTxt>
      <fragrance
45    product_name="TOMMY">pngs/TH_50per.png</fragrance>
      <fragrance
50    product_name="KITON">pngs/ARA_50per.png</fragrance>

```

```

                    <fragrance product_name="LOUD FOR
HIM">pngs/THL_F10_BLACK_50per.png</fragrance>
                    <video fragranceID="3">flvs/TommyHilfiger_768.flv</video>
                    </solution>
5          <solution id="9">
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                    <key type="1">3</key>
                    <key type="2">0</key>
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10          <secondaryTxt characteristic="sophisticated">1</secondaryTxt>
                    <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
                    <fragrance
product_name="KITON">pngs/ARA_50per.png</fragrance>
15          <fragrance product_name="ARAMIS">pngs/AC-Edt-
whtBkd_b_50per.png</fragrance>
                    </solution>
                    <solution id="10">
                    <key type="0">4</key>
20          <key type="1">0</key>
                    <key type="2">3</key>
                    <primaryTxt characteristic="casual">0</primaryTxt>
                    <secondaryTxt characteristic="sexy">2</secondaryTxt>
                    <fragrance
25          product_name="HILFIGER">pngs/19389_Hilfigerbottle_50per.png</fragrance>
                    <fragrance product_name="ARAMIS
900">pngs/900_50per.png</fragrance>
                    <fragrance
product_name="HAVANA">pngs/HAVANA_50per.png</fragrance>
30          </solution>
                    <solution id="11">
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                    <key type="1">2</key>
                    <key type="2">2</key>
35          <primaryTxt characteristic="casual">0</primaryTxt>
                    <secondaryTxt characteristic="sophisticated-sexy">5</secondaryTxt>
                    <fragrance
product_name="TOMMY">pngs/TH_50per.png</fragrance>
                    <fragrance product_name="ARAMIS
40          LIFE">pngs/LIFE_50per.png</fragrance>
                    <fragrance product_name="BE DELICIOUS
MEN">pngs/MensWhite_50per.png</fragrance>
                    </solution>
                    <solution id="12">
45          <key type="0">3</key>
                    <key type="1">3</key>
                    <key type="2">1</key>
                    <primaryTxt characteristic="sophisticated-casual">3</primaryTxt>
                    <secondaryTxt>6</secondaryTxt>
50          <fragrance
product_name="TOMMY">pngs/TH_50per.png</fragrance>

```

5                   <fragrance product\_name="DKNY FOR  
 MEN">pngs/1262\_DKNYM\_50per.png</fragrance>  
                   <fragrance product\_name="ARAMIS  
 ALWAYS">pngs/ALWAYS\_50per.png</fragrance>  
 10                </solution>  
                   <solution id="13">  
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                     <key type="1">1</key>  
                     <key type="2">3</key>  
 15                   <primaryTxt characteristic="casual-sexy">4</primaryTxt>  
                     <secondaryTxt>6</secondaryTxt>  
                     <fragrance product\_name="NEW WEST">pngs/NEW-  
 WEST\_50per.png</fragrance>  
                     <fragrance  
 20                   product\_name="HILFIGER">pngs/19389\_Hilfigerbottle\_50per.png</fragrance>  
                     <fragrance product\_name="JHL">pngs/JHL\_50per.png</fragrance>  
                   </solution>  
                   <solution id="14">  
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                     <key type="1">7</key>  
                     <key type="2">0</key>  
                     <primaryTxt characteristic="sophisticated">1</primaryTxt>  
                     <secondaryTxt>6</secondaryTxt>  
                     <fragrance product\_name="ARAMIS">pngs/AC-Edt-  
 25                   whtBkd\_b\_50per.png</fragrance>  
                     <fragrance product\_name="DKNY  
 MEN">pngs/004\_DKNYMN\_50per.png</fragrance>  
                     <fragrance  
 30                   product\_name="DEVIN">pngs/DEVIN\_50per.png</fragrance>  
                   </solution>  
                   <solution id="15">  
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                     <key type="1">6</key>  
                     <key type="2">0</key>  
 35                   <primaryTxt characteristic="sophisticated">1</primaryTxt>  
                     <secondaryTxt>6</secondaryTxt>  
                     <fragrance product\_name="ARAMIS">pngs/AC-Edt-  
 whtBkd\_b\_50per.png</fragrance>  
                     <fragrance product\_name="DKNY  
 40                   MEN">pngs/004\_DKNYMN\_50per.png</fragrance>  
                     <fragrance  
                     product\_name="DEVIN">pngs/DEVIN\_50per.png</fragrance>  
                   </solution>  
                   <solution id="16">  
 45                   <key type="0">0</key>  
                     <key type="1">6</key>  
                     <key type="2">1</key>  
                     <primaryTxt characteristic="sophisticated">1</primaryTxt>  
                     <secondaryTxt>6</secondaryTxt>  
 50                   <fragrance product\_name="ARAMIS">pngs/AC-Edt-  
 whtBkd\_b\_50per.png</fragrance>

```

    <fragrance product_name="DKNY
MEN">pngs/004_DKNYMN_50per.png</fragrance>
    <fragrance
product_name="DEVIN">pngs/DEVIN_50per.png</fragrance>
5    </solution>
    <solution id="17">
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        <key type="1">5</key>
        <key type="2">1</key>
10    <primaryTxt characteristic="sophisticated">1</primaryTxt>
        <secondaryTxt>6</secondaryTxt>
        <fragrance
product_name="DEVIN">pngs/DEVIN_50per.png</fragrance>
        <fragrance product_name="DKNY
15    MEN">pngs/004_DKNYMN_50per.png</fragrance>
        <fragrance product_name="ARAMIS
LIFE">pngs/LIFE_50per.png</fragrance>
        </solution>
        <solution id="18">
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        <key type="1">5</key>
        <key type="2">0</key>
        <primaryTxt characteristic="sophisticated">1</primaryTxt>
        <secondaryTxt characteristic="casual">0</secondaryTxt>
25    <fragrance product_name="ARAMIS
LIFE">pngs/LIFE_50per.png</fragrance>
        <fragrance product_name="DKNY FOR
MEN">pngs/1262_DKNYM_50per.png</fragrance>
        <fragrance
30    product_name="KITON">pngs/ARA_50per.png</fragrance>
        </solution>
        <solution id="19">
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            <key type="1">5</key>
35    <key type="2">2</key>
            <primaryTxt characteristic="sophisticated">1</primaryTxt>
            <secondaryTxt characteristic="sexy">2</secondaryTxt>
            <fragrance product_name="ARAMIS">pngs/AC-Edt-
whtBkd_b_50per.png</fragrance>
40    <fragrance product_name="DKNY FOR
MEN">pngs/1262_DKNYM_50per.png</fragrance>
            <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
            </solution>
45    <solution id="20">
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                <key type="1">4</key>
                <key type="2">1</key>
                <primaryTxt characteristic="sophisticated">1</primaryTxt>
50    <secondaryTxt characteristic="casual">0</secondaryTxt>

```

```

                    <fragrance
product_name="DEVIN">pngs/DEVIN_50per.png</fragrance>
                    <fragrance product_name="ARAMIS
LIFE">pngs/LIFE_50per.png</fragrance>
5                    <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
                    </solution>
                    <solution id="21">
                        <key type="0">1</key>
10                        <key type="1">4</key>
                        <key type="2">2</key>
                        <primaryTxt characteristic="sophisticated">1</primaryTxt>
                        <secondaryTxt characteristic="sexy">2</secondaryTxt>
                        <fragrance product_name="ARAMIS
15 LIFE">pngs/LIFE_50per.png</fragrance>
                        <fragrance
product_name="HAVANA">pngs/HAVANA_50per.png</fragrance>
                        <fragrance product_name="JHL">pngs/JHL_50per.png</fragrance>
20                        </solution>
                        <solution id="22">
                            <key type="0">3</key>
                            <key type="1">4</key>
                            <key type="2">0</key>
                            <primaryTxt characteristic="sophisticated">1</primaryTxt>
25                            <secondaryTxt characteristic="casual">0</secondaryTxt>
                            <fragrance product_name="ARAMIS">pngs/AC-Edt-
whtBkd_b_50per.png</fragrance>
                            <fragrance product_name="DKNY FOR
MEN">pngs/1262_DKNYM_50per.png</fragrance>
30                            <fragrance product_name="NEW WEST">pngs/NEW-
WEST_50per.png</fragrance>
                            </solution>
                            <solution id="23">
                                <key type="0">0</key>
35                                <key type="1">4</key>
                                <key type="2">3</key>
                                <primaryTxt characteristic="sophisticated">1</primaryTxt>
                                <secondaryTxt characteristic="sexy">2</secondaryTxt>
                                <fragrance product_name="BE DELICIOUS
40 MEN">pngs/MensWhite_50per.png</fragrance>
                                <fragrance product_name="DKNY FOR
MEN">pngs/1262_DKNYM_50per.png</fragrance>
                                <fragrance product_name="LOUD FOR
HIM">pngs/THL_F10_BLACK_50per.png</fragrance>
45                                <video fragranceID="3">flvs/TommyHillfiger_768.flv</video>
                                </solution>
                                <solution id="24">
                                    <key type="0">2</key>
                                    <key type="1">3</key>
50                                    <key type="2">2</key>
                                    <primaryTxt characteristic="sophisticated">1</primaryTxt>

```

<secondaryTxt characteristic="casual-sexy">4</secondaryTxt>  
 <fragrance product\_name="ARAMIS  
 900">pngs/900\_50per.png</fragrance>  
 <fragrance product\_name="DKNY FOR  
 5 MEN">pngs/1262\_DKNYM\_50per.png</fragrance>  
 <fragrance product\_name="LOUD FOR  
 HIM">pngs/THL\_F10\_BLACK\_50per.png</fragrance>  
 <video fragranceID="3">flvs/TommyHillfiger\_768.flv</video>  
 </solution>  
 10 <solution id="25">  
 <key type="0">1</key>  
 <key type="1">3</key>  
 <key type="2">3</key>  
 <primaryTxt characteristic="sophisticated-sexy">5</primaryTxt>  
 15 <secondaryTxt>6</secondaryTxt>  
 <fragrance product\_name="ARAMIS  
 LIFE">pngs/LIFE\_50per.png</fragrance>  
 <fragrance product\_name="BE DELICIOUS  
 MEN">pngs/MensWhite\_50per.png</fragrance>  
 20 <fragrance product\_name="JHL">pngs/JHL\_50per.png</fragrance>  
 </solution>  
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 25 <key type="2">7</key>  
 <primaryTxt characteristic="sexy">2</primaryTxt>  
 <secondaryTxt>6</secondaryTxt>  
 <fragrance  
 product\_name="HAVANA">pngs/HAVANA\_50per.png</fragrance>  
 30 <fragrance product\_name="JHL">pngs/JHL\_50per.png</fragrance>  
 <fragrance product\_name="LOUD FOR  
 HIM">pngs/THL\_F10\_BLACK\_50per.png</fragrance>  
 <video fragranceID="3">flvs/TommyHillfiger\_768.flv</video>  
 </solution>  
 35 <solution id="27">  
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 <key type="1">1</key>  
 <key type="2">6</key>  
 <primaryTxt characteristic="sexy">2</primaryTxt>  
 40 <secondaryTxt>6</secondaryTxt>  
 <fragrance  
 product\_name="HAVANA">pngs/HAVANA\_50per.png</fragrance>  
 <fragrance product\_name="JHL">pngs/JHL\_50per.png</fragrance>  
 <fragrance product\_name="LOUD FOR  
 45 HIM">pngs/THL\_F10\_BLACK\_50per.png</fragrance>  
 <video fragranceID="3">flvs/TommyHillfiger\_768.flv</video>  
 </solution>  
 <solution id="28">  
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 50 <key type="1">0</key>  
 <key type="2">6</key>

```

        <primaryTxt characteristic="sexy">2</primaryTxt>
        <secondaryTxt>6</secondaryTxt>
        <fragrance
5 product_name="HAVANA">pngs/HAVANA_50per.png</fragrance>
        <fragrance product_name="JHL">pngs/JHL_50per.png</fragrance>
        <fragrance product_name="LOUD FOR
HIM">pngs/THL_F10_BLACK_50per.png</fragrance>
        <video fragranceID="3">flvs/TommyHillfiger_768.flv</video>
    </solution>
10 <solution id="29">
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        <key type="1">1</key>
        <key type="2">5</key>
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15 <secondaryTxt>6</secondaryTxt>
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While the invention has been described in connection with preferred embodiments, it is not intended to limit the scope of the invention to the particular forms set forth but, on the contrary, it is intended to cover such alternatives, modifications and equivalents as may be included within the spirit and scope of the invention as defined by the appended claims.

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What we claim is:

1. A graphic user interface-assisted system for revealing the fragrance personality of a user, said system comprising:

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(1) a data entry module configured for entering into the system a data set obtained from the user, wherein the data set contains psychological information relating to attitudes, values and lifestyles of the specific user;

10

(2) a data processing module in communication with the data entry module, wherein the data processing module is configured for applying a statistical classification process to the data set so as to classify the fragrance personality of the specific user; and

15

(3) an output module in communication with the data processing module and configured for displaying the fragrance personality of the specific user as determined by the data processing module.

2. The graphic user interface-assisted system according to claim 1, wherein the psychological information in the data set is obtained through the specific user's self-evaluation as prompted by a series of questions relating to attitudes, values and lifestyle of the specific user.

3. The graphic user interface-assisted system according to claim 2, wherein the series of questions is presented on a personal computer or on a handheld or mobile device of the specific user, on a handheld device of a sales associate, or at a workstation or digital kiosk display.

4. The graphic user interface-assisted system according to claim 1, wherein the fragrance personality classification of the specific user is indicative of certain personality traits of the specific user.

30

5. The graphic user interface-assisted system according to claim 1, wherein the statistical classification process comprises multiple functions, each of which is associated with a specific fragrance personality, and is used to compute a classification score for a specific user.

6. The graphic user interface-assisted system according to claim 1, wherein the fragrance personality classification is one of three or more main classifications.

7. The graphic user interface-assisted system according to claim 1, wherein the data processing module is further configured for recommending one or more fragrance products suitable to the specific user's fragrance personality.

8. A computer-readable medium comprising code for determining the fragrance personality of a specific user, said code comprising instruction for applying a statistical classification process to a data set obtained from the specific user so as to classify the fragrance personality of said specific user, wherein said data set comprises psychological information relating to attitudes, values and lifestyles of the specific user.

9. The computer-readable medium of claim 8, wherein the fragrance personality classification of the specific user is indicative of certain personality traits of the specific user.

10. The computer-readable medium of claim 8, wherein the statistical classification process comprises multiple functions, each of which is associated with a specific fragrance personality, and is used to compute a classification score for a specific user.

20

11. The computer-readable medium of claim 8, wherein the fragrance personality classification is one of three or more main classifications.

12. The computer-readable medium of claim 8, further comprising instruction for recommending one or more fragrance products suitable to the specific user's fragrance personality.

25

13. A method of determining the fragrance personality of a specific user, said method comprising:

30

- (1) obtaining a data set from the specific user which comprises psychological information relating to attitudes, values and lifestyles of the specific user;
- (2) applying a statistical classification process to said data set of the specific user for classifying the fragrance personality of the specific user; and

(3) outputting the fragrance personality of the specific user so determined.

14. The method of claim 13, wherein the data set comprising the specific user's psychological information is obtained through the specific user's self-evaluation as prompted  
5 by a series of questions relating to attitudes, values and lifestyle of the specific user.

15. The method of claim 14, wherein the series of questions is presented on a personal computer or on a handheld or mobile device of the specific user, on a handheld device of a sales associate, or at a workstation or digital kiosk display.  
10

16. The method of claim 13, wherein the fragrance personality classification of the specific user is indicative of certain personality traits of the specific user.

17. The method of claim 13, wherein the statistical classification process comprises multiple  
15 functions, each of which is associated with a specific fragrance personality, and is used to compute a classification score for a specific user.

18. The method of claim 13, wherein the fragrance personality classification is one of three or more main classifications.  
20

19. The method of claim 13, further comprising recommending one or more fragrance products suitable to the specific user's fragrance personality.

20. A method of marketing a fragrance product to a specific consumer, the method  
25 comprising:

(1) determining a fragrance personality of a specific consumer, comprising the steps of:

(a) obtaining a data set from the specific consumer which comprises  
30 psychological information relating to attitudes, values and lifestyles of the specific consumer;

(b) applying a statistical classification process to said data set of the specific consumer for classifying the fragrance personality of the specific consumer;

- (c) outputting the fragrance personality of the specific consumer so determined; and
- (2) recommending a fragrance product to the specific consumer which is consistent with the fragrance personality so determined.

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21. The method of claim 20, wherein the data set entered into the system comprising the specific user's psychological information is based on the specific user's self-evaluation as prompted by a series of questions relating to attitudes, values and lifestyle of the specific user.

10 22. The method of claim 21, wherein the series of questions is presented on a personal computer or on a handheld or mobile device of the specific user, on a handheld device of a sales associate, or at a workstation or digital kiosk display.

23. The method of claim 20, wherein the fragrance personality classification of the specific  
15 user is indicative of certain personality traits of the specific user.

24. The method of claim 20, wherein the statistical classification process comprises multiple functions, each of which is associated with a specific fragrance personality, and is used to compute a classification score for a specific user.

20

25. The method of claim 22, wherein the fragrance personality classification is one of three or more main classifications.

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| CASUAL | SOPHISTICATED | SEDUCTIVE | PRIMARY                  | SECONDARY                | PRODUCT RECOMMENDATION                       |                                    |
|--------|---------------|-----------|--------------------------|--------------------------|----------------------------------------------|------------------------------------|
| 7      | 0             | 0         | Casual                   |                          | Tommy Girl, DKNY Be Delicious, Fresh Blossom |                                    |
| 6      | 1             | 0         | Casual                   |                          | Tommy Girl, DKNY Be Delicious, Fresh Blossom |                                    |
| 6      | 0             | 1         | Casual                   |                          | Tommy Girl, DKNY Be Delicious, Fresh Blossom |                                    |
| 5      | 1             | 1         | Casual                   |                          | Tommy Girl, DKNY Be Delicious, Fresh Blossom |                                    |
| 5      | 2             | 0         | Casual                   | Sophisticated            | Tommy Girl, DKNY Women                       | Hilfiger Woman                     |
| 5      | 0             | 2         | Casual                   | Seductive                | DKNY Women, DKNY Be Delicious                | Loud for Her                       |
| 4      | 2             | 1         | Casual                   | Sophisticated            | DKNY Women, Fresh Blossom                    | Hilfiger Woman                     |
| 4      | 1             | 2         | Casual                   | Seductive                | DKNY Be Delicious, Fresh Blossom             | Loud for Her                       |
| 4      | 3             | 0         | Casual                   | Sophisticated            | Tommy Girl                                   | Hilfiger Woman, pureDKNY           |
| 4      | 0             | 3         | Casual                   | Seductive                | DKNY Women, Fresh Blossom                    | Loud for Her                       |
| 3      | 2             | 2         | Casual                   | Sophisticated, Seductive | DKNY Be Delicious                            | Hilfiger Woman, Loud for Her       |
| 3      | 3             | 1         | Casual, Sophisticated    |                          | Fresh Blossom                                | Hilfiger Woman, pureDKNY           |
| 3      | 1             | 3         | Casual, Seductive        |                          | DKNY Women, Fresh Blossom, Loud for Her      | Loud for Her                       |
| 0      | 7             | 0         | Sophisticated            |                          | Hilfiger Woman, DKNY Red Delicious, pureDKNY |                                    |
| 1      | 6             | 0         | Sophisticated            |                          | Hilfiger Woman, DKNY Red Delicious, pureDKNY |                                    |
| 0      | 6             | 1         | Sophisticated            |                          | Hilfiger Woman, DKNY Red Delicious, pureDKNY |                                    |
| 1      | 5             | 1         | Sophisticated            |                          | Hilfiger Woman, DKNY Red Delicious, pureDKNY |                                    |
| 2      | 5             | 0         | Sophisticated            | Casual                   | Hilfiger Woman, pureDKNY                     | Tommy Girl                         |
| 0      | 5             | 2         | Sophisticated            | Seductive                | Hilfiger Woman, DKNY Red Delicious           | Loud for Her                       |
| 2      | 4             | 1         | Sophisticated            | Casual                   | Hilfiger Woman, pureDKNY                     | DKNY Be Delicious                  |
| 1      | 4             | 2         | Sophisticated            | Seductive                | DKNY Red Delicious, pureDKNY                 | Loud for Her                       |
| 3      | 4             | 0         | Sophisticated            | Casual                   | Hilfiger Woman, pureDKNY                     | Tommy Girl                         |
| 0      | 4             | 3         | Sophisticated            | Seductive                | DKNY Red Delicious, pureDKNY                 | Loud for Her                       |
| 2      | 3             | 2         | Sophisticated            | Casual, Seductive        | pureDKNY                                     | Fresh Blossom, Loud for Her        |
| 1      | 3             | 3         | Sophisticated, Seductive |                          | Hilfiger Woman, pureDKNY, Loud for Her       |                                    |
| 0      | 0             | 7         | Seductive                |                          | Loud for Her                                 |                                    |
| 0      | 1             | 6         | Seductive                |                          | Loud for Her                                 |                                    |
| 1      | 0             | 6         | Seductive                |                          | Loud for Her                                 |                                    |
| 1      | 1             | 5         | Seductive                |                          | Loud for Her                                 |                                    |
| 0      | 2             | 5         | Seductive                | Sophisticated            | Loud for Her                                 | DKNY Red Delicious, pureDKNY       |
| 2      | 0             | 5         | Seductive                | Casual                   | Loud for Her                                 | Tommy Girl, DKNY Be Delicious      |
| 1      | 2             | 4         | Seductive                | Sophisticated            | Loud for Her                                 | DKNY Red Delicious, pureDKNY       |
| 2      | 1             | 4         | Seductive                | Casual                   | Loud for Her                                 | DKNY Women, Fresh Blossom          |
| 0      | 3             | 4         | Seductive                | Sophisticated            | Loud for Her                                 | Hilfiger Woman, pureDKNY           |
| 3      | 0             | 4         | Seductive                | Casual                   | Loud for Her                                 | DKNY Be Delicious, Fresh Blossom   |
| 2      | 2             | 3         | Seductive                | Casual, Sophisticated    | Loud for Her                                 | Hilfiger Woman, DKNY Red Delicious |
| 1      | 3             | 3         | Sophisticated, Seductive |                          | DKNY Red Delicious, pureDKNY, Loud for Her   |                                    |
| 3      | 1             | 3         | Casual, Seductive        |                          | DKNY Women, Fresh Blossom, Loud for Her      |                                    |

FIG. 1

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| CASUAL | SOPHISTICATED | SEXY | PRIMARY               | SECONDARY             | PRODUCT RECOMMENDATION                      |                                     |
|--------|---------------|------|-----------------------|-----------------------|---------------------------------------------|-------------------------------------|
| 7      | 0             | 0    | Casual                |                       | New West, Tommy, Aramis Always              |                                     |
| 6      | 1             | 0    | Casual                |                       | New West, Tommy, Aramis 900                 |                                     |
| 6      | 0             | 1    | Casual                |                       | New West, Tommy, Aramis 900                 |                                     |
| 5      | 1             | 1    | Casual                |                       | New West, Tommy, Kiton                      |                                     |
| 5      | 2             | 0    | Casual                | Sophisticated         | Hilfiger, Aramis 900                        | DKNY Men                            |
| 5      | 0             | 2    | Casual                | Sexy                  | Aramis 900, Kiton                           | Loud for Him                        |
| 4      | 2             | 1    | Casual                | Sophisticated         | New West, Tuscan                            | Devin                               |
| 4      | 1             | 2    | Casual                | Sexy                  | Tommy, Kiton                                | Loud for Him                        |
| 4      | 3             | 0    | Casual                | Sophisticated         | New West, Kiton                             | Aramis Classic                      |
| 4      | 0             | 3    | Casual                | Sexy                  | Hilfiger, Aramis 900                        | Havana                              |
| 3      | 2             | 2    | Casual                | Sophisticated, Sexy   | Tommy                                       | Aramis Life, DKNY Be Delicious Men  |
| 3      | 3             | 1    | Casual, Sophisticated |                       | Tommy, Aramis Always, DKNY Men              |                                     |
| 3      | 1             | 3    | Casual, Sexy          |                       | New West, Hilfiger, JHL                     |                                     |
| 0      | 7             | 0    | Sophisticated         |                       | Aramis Classic, Devin, DKNY Men             |                                     |
| 1      | 6             | 0    | Sophisticated         |                       | Aramis Classic, Devin, DKNY Men             |                                     |
| 0      | 6             | 1    | Sophisticated         |                       | Aramis Classic, Devin, DKNY Men             |                                     |
| 1      | 5             | 1    | Sophisticated         |                       | Devin, DKNY Men, Aramis Life                |                                     |
| 2      | 5             | 0    | Sophisticated         | Casual                | DKNY Men, Aramis Life                       | Kiton                               |
| 0      | 5             | 2    | Sophisticated         | Sexy                  | Aramis Classic, Devin                       | DKNY Be Delicious Men               |
| 2      | 4             | 1    | Sophisticated         | Casual                | Devin, Aramis Life                          | New West                            |
| 1      | 4             | 2    | Sophisticated         | Sexy                  | Aramis Life                                 | Havana, JHL                         |
| 3      | 4             | 0    | Sophisticated         | Casual                | Aramis Classic, DKNY Men                    | New West                            |
| 0      | 4             | 3    | Sophisticated         | Sexy                  | DKNY Men                                    | DKNY Be Delicious Men, Loud for Him |
| 2      | 3             | 2    | Sophisticated         | Casual, Sexy          | DKNY Men                                    | Aramis 900, Loud for Him            |
| 1      | 3             | 3    | Sexy, Sophisticated   |                       | Aramis Life, DKNY Be Delicious Men, JHL     |                                     |
| 0      | 0             | 7    | Sexy                  |                       | Havana, JHL, Loud for Him                   |                                     |
| 0      | 1             | 6    | Sexy                  |                       | Havana, JHL, Loud for Him                   |                                     |
| 1      | 0             | 6    | Sexy                  |                       | Havana, JHL, Loud for Him                   |                                     |
| 1      | 1             | 5    | Sexy                  |                       | DKNY Be Delicious Men, Havana, Loud for Him |                                     |
| 0      | 2             | 5    | Sexy                  | Sophisticated         | Havana, Loud for Him                        | DKNY Men                            |
| 2      | 0             | 5    | Sexy                  | Casual                | DKNY Be Delicious Men, Loud for Him         | Kiton                               |
| 1      | 2             | 4    | Sexy                  | Sophisticated         | Havana, JHL                                 | Devin                               |
| 2      | 1             | 4    | Sexy                  | Casual                | Havana                                      | Hilfiger, Aramis Always             |
| 0      | 3             | 4    | Sexy                  | Sophisticated         | DKNY Be Delicious Men, JHL                  | Aramis Life                         |
| 3      | 0             | 4    | Sexy                  | Casual                | Havana                                      | New West, Kiton                     |
| 2      | 2             | 3    | Sexy                  | Casual, Sophisticated | Loud for Him                                | Aramis 900, DKNY Men                |
| 1      | 3             | 3    | Sexy, Sophisticated   |                       | Devin, DKNY Be Delicious Men, JHL           |                                     |
| 3      | 1             | 3    | Sexy, Casual          |                       | New West, Hilfiger, JHL                     |                                     |

FIG. 2

**A. CLASSIFICATION OF SUBJECT MATTER****G06F 9/44(2006.01)i, G06F 3/048(2006.01)i**

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)

G06F 9/44; G06F 3/048; A61K 8/02; G06Q 99/00; G06F 17/60; G06Q 30/00

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

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

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

eKOMPASS(KIPO internal) &amp; Keywords: fragrance, scent, perfume, aroma, GUI, select, personal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                              | Relevant to claim No. |
|-----------|---------------------------------------------------------------------------------------------------------------------------------|-----------------------|
| X         | US 2003-0014324 A1 (DONOVAN, DON RODERICK et al.) 16 January 2003<br>See figures 1-5, 21-24; paragraph [38]-[40], [47] and [52] | 1-25                  |
| A         | US 2009-0164341 A1 (SUNVOLD, GREGORY DEAN et al.) 25 June 2009<br>See figures 2, 3; paragraphs [3]-[5], [13], [21] and [22]     | 1-25                  |
| A         | US 2006-0010004 A1 (DECKNER, GEORGE ENDEL) 12 January 2006<br>See paragraphs [6]-[8]                                            | 1-25                  |
| A         | US 2002-0026322 A1 (WRIGHT, JOHN) 28 February 2002<br>See figure 1; paragraphs [4] and [14]-[16]                                | 1-25                  |



Further documents are listed in the continuation of Box C.



See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

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"P" document published prior to the international filing date but later than the priority date claimed

"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

"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

"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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

20 FEBRUARY 2012 (20.02.2012)

Date of mailing of the international search report

**21 FEBRUARY 2012 (21.02.2012)**

Name and mailing address of the ISA/KR

Korean Intellectual Property Office  
Government Complex-Daejeon, 189 Cheongsu-ro,  
Seo-gu, Daejeon 302-701, Republic of Korea

Facsimile No. 82-42-472-7140

Authorized officer

YOON, Hye Sook

Telephone No. 82-42-481-8370



**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

**PCT/US2011/030153**

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)                                                                                  | Publication<br>date                                                              |
|-------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
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| US 2006-0010004 A1                        | 12.01.2006          | None                                                                                                        |                                                                                  |
| US 2002-0026322 A1                        | 28.02.2002          | US 2004-0267587 A1<br>US 6801816 B2                                                                         | 30.12.2004<br>05.10.2004                                                         |