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| Function No | Function name | Priority | Target user | How to use | User benefit |
| 1 | Commodity association prediction | high | Manager | Firstly user input the name or the id of a commodity.  Then user can get all the associated commodities of the commodity based on the prediction of past data.  For example, a user wants to know what commodities a customer will also buy if he buys the wines. The user just need input the name of wine and click the button, then the system will show all associated commodities by relevance descending. | User can easily know the degree of association between the commodities, and can make decision to put commodities with the high degree of association together so that customers can easily get multiple commodities that they all want. And Doing so will greatly increase the sales of the commodity. |
| 2 | Sales volume prediction | high | Manager | Firstly user selects a period.  Then user can get the list of predicted sales volume for all the commodities during that period according to the sales data of past years and other factors.  For example, if a user wants to know predicted sales volume for all the commodities in the next month, the user just need select the period and click the button, and then the list of predicted sales volume for all the commodities will be shown. | User can get the predicted sales volume of each commodity this year. Doing so can help user how to choose the suppliers, how to arrange the procurement amount and how to set prices for every commodity. |
| 3 | Commodity price prediction | high | Manager | Firstly user can input the name or id of a commodity.  Then user can get the prediction price of the commodity currently according to the price data of past years and other factors. | If set the price too high, the number of commodities that customers buy becomes less, and if set the price too low, the profit for each commodity becomes less. Therefore, providing a compromise price that makes the overall profit maximize is a good choice.  Using the commodity price prediction function, the user can easily know the predicted price for each commodity, which can greatly help the user to set the reasonable price for each commodity. |
| 4 | Expired commodity reminder | high | Manager | Firstly user can set alert time of commodities that are about to expire so that the system can remind user to deal with these commodities before expiration.  Then once the alarm time has been exceeded, user can get the list of commodities that are about to expire. | User can easily know all the commodities that are about to expire, so that user can make decisions to how to deal with these commodities before expiration.  For example, the user can promote commodities by making a discount before these commodities expire. |
| 5 | Commodity search | low | Manager | Firstly user input a search query. The query can contain the name of commodity, the position of commodities, and so on. That is a multi-dimensional query.  Then user can get the summary information result list of commodities that meets the search query.  Finally, if the user wants to know the detail information of a commodity, the user needs to click the button on the summary information of a commodity in the result list and the system will show the detail information of the commodity. | User can easily get the commodity list of meeting the search query. Doing so can help user quickly find commodities that they need.  For example, the user can easily know the remaining amount of the commodity so that user can make decisions how many the user needs to purchase this commodity in the next procurement time. |
| 6 | Commodity information import | low | Manager | Firstly user input the commodity information containing the number, the unit price, the name, the position in the supermarket and so on.  Then the user clicks the button and saves the commodity information. | User can easily save the commodity information into the system so that the system can help user more easily manage commodities. |
| 7 | Commodity information batch import | high | Manager | Firstly, the user prepares the file containing the information list of a batch of commodities  Then, the user uploads the file.  For example, when the user purchases a number of commodities and want to import these to the system, user just need adjust the file format and meet the system requirements about the file format. Therefore, the user just can import many commodities information at one time. | The user can easily import many commodities information at one time, which saves much time to import a number of commodities for the user. |
| 8 | Orders query | low | Manager | Firstly user select the time period.  Then user can get the orders record list and the sum of sales amount during that period.  The order information should contain the buy time, the buying commodity list, the customer name, the total of all the prices and so on. | User can easily know the consumption of customers and this will help user to analyze the purchase behavior of customers and make decisions how to arrange the sales in the future. |
| 9 | Supermarket managerment | low | Manager | When the user just starts to use the system, the user needs to import the supermarket information into the system.  When the user want to know the information about a supermarket:  Firstly user can select a supermarket in the list of all the supermarket of different position in this company.  Then user can view the detail information of the supermarket. | Because there are many supermarkets in this big company, the user need to know the detail information of every supermarket of different regions. Doing so can make user easily know how to operate and adjust so many supermarkets. |
| 10 | Supplier information management | low | Manager | When purchase the commodities from a new supplier:  Firstly the user needs to enter the information about the new supplier.  Then the user clicks the button to save it.  When the user want to know the information about a supplier:  Firstly user can input the name of a supplier.  Then user can get all the detail information of the supplier. | User can easily know the detail information of every supplier. User can know how many commodities the company purchases from one supplier. User can also know how many types of commodities the company purchases from one supplier. Doing so can help user develop a better procurement strategy. |
| 11 | Commodity sales trends | low | Manager | Firstly user can input the name of a commodity and select a period.  Then user can get the trends of the commodity during that period. | User can know the sales trends of every commodity. Doing so can help user control the number of this commodity purchased, and help the user reduce costs. |
| 12 | Employee attendance status | low | Manager | Firstly user can input the name of an employee and select a period.  Then user can get the attendance status of the employee during that period. | User can easily know the performance status for each employee. Doing so can help user evaluate every employee better.  At the same time, the attendance status for each employee is an important criterion for determining the amount of wages. |
| 13 | Attendance status | low | All employees | At the beginning of every day at work, the user need check in on the system.  At the end of every day at work, the user need check in again on the system.  When the user want to know his/her attendance:  Firstly user can select a period.  Then user can get his/her own attendance status during that period. | User can easily check in on the system.  User can easily know his/her own attendance details so that the user can make decisions how to behave better. |
| 14 | Salary status query | low | All employees | Firstly user can select a period.  Then user can get his/her own detail information about salary every month during that period. | Make user easily know his/her own salary status every month. And it also helps user clearly know their workload.  For example, the user finds that one month's salary is reduced, so the user can check the detail information about the salary that month. The user can clearly know what causes a reduction in salary so that the user can behave better. |
| 15 | Purchase of commodity | high | Manager | When the user needs to input the purchase information of commodity:  Firstly user input the purchase information such as the purchase time, the supplier, every commodity, and so on.  Then user clicks the button and save the information into the system.  When the user needs to query the purchase records:  Firstly user can select a period.  Then user can get the list of the purchase details of every commodity in every purchase during that period. | User can easily manage the purchase information.  User easily knows the purchase details for commodities in every purchase. Doing so can help user make decision how to arrange a better procurement strategy in the next purchase. |
| 16 | Revenue and expenditure status | high | Manager | Firstly user can input the name of a supermarket and select a period.  Then user can get revenue and expenditure status about that supermarket during that period. | User can easily get revenue and expenditure status. Doing so can help user know the status of every supermarket and help user make next step to improve the revenue for every supermarket. |
| 17 | Personnel information management | low | Manager | When a new employee come:  Firstly the user need enter the new employee information.  Then the user clicks the button to save it.  When the user want to know the detail information about an employee:  Firstly the user can input the name of an employee.  Then user can get the detail information of the employee. | User can easily manage the detail information about the employees.  User can easily know the summary information of an employee so that user can better organize the work for that employee. |
| 18 | Order generation | high | Casher | Firstly user scans every commodity that the customer purchases.  Then user get the total amount of all commodities.  And then user will ask whether the customer is a member of this supermarket.  If the customer is a member, the user will input the id of the customer or scan the membership card of the customer and give the customer a discount.  Finally the user generates the order from the system. | User can avoid the human mistake of calculating total price. Also user can save time for the purchase process and improve the customer’s satisfactions |
| 19 | Member registration | high | Casher | Firstly user ask whether the customer wants to be a member of this supermarket.  If the customer wants to be a member, the user will ask the customer some information such as the name, the phone number, the id card number.  The user input this information into the system, and system will record this customer as a member. | User can easily register the customer as a member of the supermarket. Doing so will simplify the registration process and make the customer more satisfied. |
| 20 | Discount promotion | high | Manager | First user select some commodities.  Then user set the amount of discount for every selected commodities. | User can easily set the amount of discount for the commodity.  For example, in holiday the user want to promote commodities by making a discount, so the user just need set the discount for those commodities. |
| 21 | Discount commodity query | high | Manager | First user input the name of a commodity.  Then user can get the amount of discount for this commodities. | User can easily know the amount of discount for the commodity. Doing so can help user develop a better discount promotion strategy. |

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