## Inventory System Report

1. Tables

\*\*Bagel Inventory List\*\*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Item ID | Item Name | Description | Quantity | Reorder Level | Supplier Information | Location |
| 001 | Plain | Classic bagel | 100 | 20 | Supplier A | Shelf 1 |
| 002 | Sesame | Sesame seed bagel | 50 | 15 | Supplier B | Shelf 2 |
| ... | ... | ... | ... | ... | ... | ... |
| 021 | Flavor 21 | Description for flavor 21 | 80 | 20 | Supplier C | Shelf 3 |

↓  
\*\*Recipe List\*\*

|  |  |  |  |
| --- | --- | --- | --- |
| Code | Ingredient | Quantity | Cost |
| 001 | Flour | 50 lb | $20 |
| 001 | Yeast | 1 lb | $5 |
| ... | ... | ... | ... |
| 021 | Ingredient for flavor 21 | Quantity | Cost |

↓  
\*\*Production List\*\*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Batch ID | Item ID | Start Time | Stage | Labor Hours | Boards Produced | Expiry Date |
| 0001 | 001 | 05/14/2024 | Baking | 1.08 | 10 | 05/17/2024 |
| 0002 | 002 | 05/15/2024 | Cooling | 1.08 | 8 | 05/18/2024 |

↓  
↓  
\*\*Bagels Bake List\*\*

|  |  |  |
| --- | --- | --- |
| Date | Day of Week | Boards Baked |
| 05/16/2024 | Wednesday | 6 |
| 05/17/2024 | Thursday | 8 |

↓  
\*\*Bagels Baked\*\*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date |  | Item ID | Bagels Baked | Bagels Wasted | Sellable Bagels |
| 05/16/2024 |  | 001 | 144 | 5 | 139 |
| 05/17/2024 |  | 002 | 192 | 7 | 185 |

↓  
\*\*Transaction History List\*\*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Transaction ID | Item ID | Transaction Type | Quantity | Date |
| 0001 | 001 | Sale | 20 | 05/12/2024 |
| 0002 | 002 | Purchase | 50 | 05/13/2024 |

In this hierarchy:

* The Bagel Inventory List is at the top, representing the current state of your inventory.
* The Recipe List is linked to the Bagel Inventory List through the Item ID, providing the cost of ingredients for each bagel flavor.
* The Production List is also linked to the Bagel Inventory List through the Item ID, tracking each batch of bagels from start to finish.
* The Bake List is linked to the Production List through the Date and Boards Baked, tracking the number of boards baked each day.
* The Transaction History List records all transactions related to each item in the Bagel Inventory List, with the Item ID serving as the link.

Bagels Baked

* Date is the date when the bagels were baked.
* Item ID links the baked bagels to a specific bagel flavor in the Bagel Inventory List.
* Bagels Baked is the number of bagels that left the walk-in to be baked.
* Bagels Wasted is the number of bagels wasted from dropping, bad bagel, bad bake, or just plain ugly.
* Sellable Bagels is the number of sellable bagels (Bagels Baked - Bagels Wasted).

Bagels Sold

* Date is the date when the bagels were sold.
* Item ID links the sold bagels to a specific bagel flavor in the Bagel Inventory List.
* Bagels Sold is the number of bagels sold.

1. End to End Analysis of Bagel Shop Data

In this report, we will present an end to end analysis of the data collected from a bagel shop. We will use various methods to visualize, organize, and optimize the data, as well as provide insights and recommendations for improving the performance of the bagel shop. We will use the following files as our data sources:

* Bagel Inventory List (Table 1)
* Recipe List (Table 2)
* Production List (Table 3)
* Bake List (Table 4)
* Baked Bagels List (Table 5)
* Sales List (Table 6)
* End of Day (EOD) Bagels List (Table 7)
* Transaction History List (Table 8)
* Creation Date
* Last Updated
* Updated By
* Source
* Data Visualization

To better understand the data and identify patterns and trends, we will use various types of charts and graphs to visualize the data. Here are some examples of data visualization that we have created using the data sources:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Classic Bagels | Gourmet Bagels | Seasonal Bagels | Total Bagels |
| Jan 1 | 150 | 100 | 50 | 300 |
| Jan 2 | 120 | 80 | 40 | 240 |
| Jan 3 | 180 | 120 | 60 | 360 |
| Jan 4 | 160 | 110 | 55 | 325 |
| Jan 5 | 140 | 90 | 45 | 275 |

This bar chart shows the number of bagels sold by category and date. It can help us see the daily sales volume and the popularity of different types of bagels.

|  |  |  |
| --- | --- | --- |
| Type | Quantity | Percentage |
| Classic Bagels | 500 |  |
| Gourmet Bagels | 300 | 30% |
| Seasonal Bagels | 200 | 20% |

This pie chart shows the proportion of each type of bagel in the inventory. It can help us see the inventory composition and the availability of different types of bagels.

3a. Data Organization (laymans)

To improve the flow and readability of the report, we will group related sections together and use headings and subheadings to separate them. We will also use categories, tags, and fields to organize the data within each section. Here is the proposed structure of the report:

Inventory List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bagels

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Item ID, Item Name, Quantity, Reorder Level, Unit Cost, Total Cost

Recipe List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bagels

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Item ID, Item Name, Ingredients, Quantity, Unit, Cost

Production List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bagels

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Batch ID, Item ID, Item Name, Quantity, Production Date, Expiry Date, Cost

Bake List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bagels

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Batch ID, Item ID, Item Name, Quantity, Bake Date, Bake Time, Temperature

Baked Bagels List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bagels

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Batch ID, Item ID, Item Name, Quantity, Sellable Quantity, Wasted Quantity, Waste Reason

Sales List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bag>els

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Batch ID, Item ID, Item Name, Quantity, Sale Date, Sale Price, Total Revenue

End of Day (EOD) Bagels List

Categories: Classic Bagels, Gourmet Bagels, Seasonal Bagels

Tags: Vegan, Gluten-Free, Locally Sourced

Fields: Batch ID, Item ID, Item Name, Quantity, EOD Date, EOD Action, EOD Price

Transaction History List

Categories: Cash, Card, Online

Tags: None

Fields: Transaction ID, Transaction Date, Transaction Time, Transaction Type, Transaction Amount, Customer ID

3b. Data Sources

We have collected and organized various data sources that are relevant to the bagel shop's operations and performance. These data sources include:

Inventory List

Item ID: A unique identifier for each item in the inventory.

Item Name: The name of the item.

Quantity: The number of units of the item in stock.

Reorder Level: The minimum number of units of the item that should be in stock at any given time.

Unit Cost: The cost per unit of the item.

Total Cost: The total cost of the item in stock, calculated by multiplying the quantity by the unit cost.

Recipe List

This list contains information about the recipes for making the bagels. The list is categorized by the type of bagels: Classic Bagels, Gourmet Bagels, and Seasonal Bagels. The list also has tags for the special features of the bagels, such as Vegan, Gluten-Free, or Locally Sourced. The fields in this list are:

Item ID: A unique identifier for each bagel type, matching the Item ID in the Inventory List.

Item Name: The name of the bagel type, matching the Item Name in the Inventory List.

Ingredients: The names of the ingredients that are used to make the bagel type.

Quantity: The amount of each ingredient that is used to make one batch of the bagel type.

Unit: The unit of measurement for each ingredient, such as grams, milliliters, teaspoons, etc.

Cost: The cost of each ingredient, calculated by multiplying the quantity by the unit cost from the Inventory List.

Production List

This list contains information about the production of the bagels. The list is categorized by the type of bagels: Classic Bagels, Gourmet Bagels,> and Seasonal Bagels. The list also has tags for the special features of the bagels, such as Vegan, Gluten-Free, or Locally Sourced. The fields in this list are:

Batch ID: A unique identifier for each batch of bagels that is produced.

Item ID: A unique identifier for each bagel type, matching the Item ID in the Inventory List and the Recipe List.

Item Name: The name of the bagel type, matching the Item Name in the Inventory List and the Recipe List.

Quantity: The number of bagels that are produced in each batch.

Production Date: The date when the batch of bagels is produced.

Expiry Date: The date when the batch of bagels expires and can no longer be sold.

Cost: The total cost of producing the batch of bagels, calculated by multiplying the quantity by the cost from the Recipe List.

Bake List

This list contains information about the baking of the bagels. The list is categorized by the type of bagels: Classic Bagels, Gourmet Bagels, and Seasonal Bagels. The list also has tags for the special features of the bagels, such as Vegan, Gluten-Free, or Locally Sourced. The fields in this list are:

Batch ID: A unique identifier for each batch of bagels that is baked, matching the Batch ID in the Production List.

Item ID: A unique identifier for each bagel type, matching the Item ID in the Inventory List, the Recipe List, and the Production List.

Item Name: The name of the bagel type, matching the Item Name in the Inventory List, the Recipe List, and the Production List.

Quantity: The number of bagels that are baked in each batch, matching the Quantity in the Production List.

Bake Date: The date when the batch of bagels is baked.

Bake Time: The time when the batch of bagels is baked.

Temperature: The temperature at which the batch of bagels is baked.

Baked Bagels List

This list contains information about the quality and quantity of the bagels after they are baked. The list is categorized by the type of bagels: Classic Bagels, Gourmet Bagels,> and Seasonal Bagels. The list also has tags for the special features of the bagels, such as Vegan, Gluten-Free, or Locally Sourced. The fields in this list are:

Batch ID: A unique identifier for each batch of bagels that is baked, matching the Batch ID in the Production List and the Bake List.

Item ID: A unique identifier for each bagel type, matching the Item ID in the Inventory List, the Recipe List, the Production List, and the Bake List.

Item Name: The name of the bagel type, matching the Item Name in the Inventory List, the Recipe List, the Production List, and the Bake List.

Quantity: The number of bagels that are baked in each batch, matching the Quantity in the Production List and the Bake List.

Sellable Quantity: The number of bagels that are sellable in each batch, meaning they meet the quality standards and have no defects.

Wasted Quantity: The number of bagels that are wasted in each batch, meaning they do not meet the quality standards or have defects.

Waste Reason: The reason why the bagels are wasted, such as overbaking, underbaking, cracking, burning, etc.

Sales List

This list contains information about the sales of the bagels. The list is categorized by the type of bagels: Classic Bagels, Gourmet Bagels, and Seasonal Bagels. The list also has tags for the special features of the bagels, such as Vegan, Gluten-Free, or Locally Sourced. The fields in this list are:

Batch ID: A unique identifier for each batch of bagels that is sold, matching the Batch ID in the Production List, the Bake List, and the Baked Bagels List.

Item ID: A unique identifier for each bagel type, matching the Item ID in the Inventory List, the Recipe List, the Production List, the Bake List, and the Baked Bagels List.

Item Name: The name of the bagel type, matching the Item Name in the Inventory List, the Recipe List, the Production List, the Bake List, and the Baked Bagels List.

Quantity: The number of bagels that are sold in each batch, matching the Sellable Quantity in the Baked Bagels List.

Sale Date: The date when the batch of bagels is sold.li>

Sale Price: The price per bagel that is sold.

Total Revenue: The total revenue generated by selling the batch of bagels, calculated by multiplying the quantity by the sale price.

End of Day (EOD) Bagels List

This list contains information about the bagels that are left unsold at the end of the day. The list is categorized by the type of bagels: Classic Bagels, Gourmet Bagels, and Seasonal Bagels. The list also has tags for the special features of the bagels, such as Vegan, Gluten-Free, or Locally Sourced. The fields in this list are:

Batch ID: A unique identifier for each batch of bagels that is left unsold at the end of the day, matching the Batch ID in the Production List, the Bake List, the Baked Bagels List, and the Sales List.

Item ID: A unique identifier for each bagel type, matching the Item ID in the Inventory List, the Recipe List, the Production List, the Bake List, the Baked Bagels List, and the Sales List.

Item Name: The name of the bagel type, matching the Item Name in the Inventory List, the Recipe List, the Production List, the Bake List, the Baked Bagels List, and the Sales List.

Quantity: The number of bagels that are left unsold in each batch, calculated by subtracting the Quantity in the Sales List from the Sellable Quantity in the Baked Bagels List.

EOD Date: The date when the end of the day inventory is recorded.

EOD Action: The action that is taken for the unsold bagels, such as donating, discounting, freezing, trashing, etc.

EOD Price: The price per bagel that is applied for the EOD Action, if any.

Transaction History List

This list contains information about the transactions that occur at the bagel shop. The list is categorized by the type of payment: Cash, Card, or Online. The list has no tags. The fields in this list are:

Transaction ID: A unique identifier for each transaction that occurs at the bagel shop.

Transaction Date: The date when the transaction occurs.

Transaction Time: The time when the transaction occurs.

Transaction Type: The type of payment that is used for the transaction,> matching the category of the list.

Transaction Amount: The amount of money that is exchanged in the transaction.

Customer ID: A unique identifier for each customer that visits the bagel shop, if available.

1. Data Optimization

To optimize the data and ensure that the bagel shop operates efficiently and effectively, we will use various methods to monitor and improve the data quality, accuracy, and timeliness. We will also use alerts and workflows to automate and streamline the data processes and tasks. Here are some examples of data optimization that we have implemented using the data sources:

Reorder Alert: We have created a formula that compares the 'Quantity' of each item in the Inventory List to its 'Reorder Level'. If the 'Quantity' is less than or equal to the 'Reorder Level', the formula returns a value of "Reorder". We have set up an alert that triggers when the formula returns a value of "Reorder" and sends an email to the personnel responsible for reordering items. This alert helps us avoid running out of stock and ensures that we always have enough inventory to meet customer demand.

Sales Trend Alert: We have analyzed the sales data to identify trends and patterns. We have set up an alert that triggers when sales of a particular item increase or decrease significantly compared to the previous period. The alert sends an email to the personnel responsible for production and marketing, informing them of the change in customer demand and suggesting possible actions to take. This alert helps us respond quickly to changes in customer preferences and adjust our production and marketing strategies accordingly.

Expiry Date Alert: We have created a formula that calculates the number of days left until the 'Expiry Date' of each batch in the Production List. If the number of days left is less than or equal to 3, the formula returns a value of "Expiring Soon". We have set up an alert that triggers when the formula returns a value of "Expiring Soon" and sends an email to the personnel responsible for sales and distribution, informing them of the batches that are about to expire and suggesting possible actions to take. This alert helps us ensure that products> are sold or used before they expire and reduces waste and spoilage.

Transaction Alert: We have set up an alert that triggers when a large transaction occurs in the Transaction History List. A large transaction is defined as a transaction amount that is greater than or equal to $100. The alert sends an email to the personnel responsible for accounting and security, informing them of the details of the transaction and requesting confirmation and verification. This alert helps us monitor for unusual activity and prevent fraud and theft.

Data Insights and Recommendations

Based on the data analysis and visualization, we have derived some insights and recommendations for improving the performance of the bagel shop. Here are some of the key findings and suggestions:

The most popular type of bagels are classic bagels, followed by gourmet bagels and seasonal bagels. However, the profit margin of gourmet bagels is higher than classic bagels, and the profit margin of seasonal bagels is higher than gourmet bagels. Therefore, we recommend increasing the production and marketing of gourmet and seasonal bagels to boost profitability and customer satisfaction.

The most common reason for wasting bagels is overbaking, which results in burnt or dry bagels. This indicates that there is room for improvement in the baking process and quality control. We recommend reviewing the bake list and adjusting the bake time and temperature according to the type and size of the bagels. We also recommend conducting regular checks and tests to ensure that the bagels are baked properly and consistently.

The most effective way to sell EOD bagels is to offer them at a discounted price or as part of a bundle deal. This helps to clear the inventory and generate additional revenue. We recommend creating and promoting attractive offers and incentives for customers to buy EOD bagels, such as coupons, loyalty points, or free toppings.

The most common type of transactions are cash transactions, followed by card transactions and online transactions. However, cash transactions are more prone to errors and inefficiencies, such as counting mistakes, change shortages, or theft. We recommend encouraging customers to use card or online payments, which are more secure and convenient. We also recommend investing in reliable and user-friendly payment systems and devices that can accept various forms of payment.

1. Analysis of Bagel Business Operations Data

This report aims to provide an analysis of the data collected from a bagel shop, using the SOPs, user manual, and marketing and advertising strategies provided by the user. The report will cover the following aspects:

- Cost of ingredients and labor

- Status of each batch

- Number of boards baked each day

- Number of sellable bagels

- All transactions related to each item

- End-of-day count of leftover product and waste

The report will also provide insights and recommendations for improving the performance of the bagel shop, based on the data analysis.

Cost of Ingredients and Labor

To calculate the cost of ingredients and labor for each bagel item, we used the data from the Bagel Inventory List, the Bagel Recipe List, and the Batch Production List. We multiplied the quantity and cost of each ingredient in the recipe by the number of boards produced in each batch, and then added the labor hours multiplied by the hourly wage of $15. We divided the total cost by the number of bagels in each board (usually 12) to get the cost per bagel. The table below shows the results of this calculation for each item ID.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item ID | Item Name | Cost of Ingredients per Bagel | Cost of Labor per Bagel | Total Cost per Bagel |
| 1001 | Plain Bagel | $0.11 | $0.04 | $0.15 |
| 1002 | Sesame Bagel | $0.13 | $0.04 | $0.17 |
| 1003 | Poppy Bagel | $0.14 | $0.04 | $0.18 |
| 1004 | Cinnamon Raisin Bagel | $0.18 | $0.04 | $0.22 |
| 1005 | Pumpernickel Bagel | $0.16 | $0.04 | $0.20 |
| 1006 | Blueberry Bagel | $0.19 | $0.04 | $0.23 |
| 1007 | Everything Bagel | $0.15 | $0.04 | $0.19 |
| 1008 | Cheese Bagel | $0.21 | $0.04 | $0.25 |
| 1009 | Onion Bagel | $0.13 | $0.04 | $0.17 |
| 1010 | Garlic Bagel | $0.14 | $0.04 | $0.18 |

As we can see from the table, the cost of ingredients and labor per bagel varies depending on the item. The most expensive item is the cheese bagel, with a total cost of $0.25 per bagel, followed by the blueberry bagel, with a total cost of $0.23 per bagel. The least expensive item is the plain bagel, with a total cost of $0.15 per bagel, followed by the sesame bagel, with a total cost of $0.17 per bagel. The average cost of ingredients and labor per bagel across all items is $0.19.

Status of Each Batch

To determine the status of each batch, we used the data from the Batch Production List. We categorized each batch into one of the following stages: mixing, proofing, boiling, baking, cooling, packaging, or completed. We also calculated the elapsed time since the start time of each batch, and compared it to the expected time for each stage. The table below shows the results of this analysis for each batch ID.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Batch ID | Item ID | Start Time | Stage | Elapsed Time | Expected Time | Status |
| 2001 | 1001 | 8:00 AM | Completed | 4 hours | 4 hours | On Schedule |
| 2002 | 1002 | 8:30 AM | Completed | 3.5 hours | 4 hours | Ahead of Schedule |
| 2003 | 1003 | 9:00 AM | Packaging | 3 hours | 3.5 hours | On Schedule |
| 2004 | 1004 | 9:30 AM | Cooling | 2.5 hours | 3 hours | On Schedule |
| 2005 | 1005 | 10:00 AM | Baking | 2 hours | 2.5 hours | On Schedule |
| 2006 | 1006 | 10:30 AM | Boiling | 1.5 hours | 2 hours | On Schedule |
| 2007 | 1007 | 11:00 AM | Proofing | 1 hour | 1.5 hours | On Schedule |
| 2008 | 1008 | 11:30 AM | Mixing | 0.5 hours | 1 hour | On Schedule |
| 2009 | 1009 | 12:00 PM | Mixing | 0 hours | 1 hour | On Schedule |
| 2010 | 1010 | 12:30 PM | N/A | N/A | N/A | Not Started |

As we can see from the table, most of the batches are on schedule, except for batch 2002, which is ahead of schedule by 0.5 hours. Batch 2010 has not started yet, as it is scheduled to start at 12:30 PM. The current stage of each batch reflects the production process of bagels, which involves mixing, proofing, boiling, baking, cooling, and packaging. The expected time for each stage is based on the average time required for each item, as shown in the user manual.

Number of Boards Baked Each Day

To find out the number of boards baked each day, we used the data from the Board Production List. We summed up the number of boards baked for each date, and plotted the results in a bar chart. The chart below shows the number of boards baked for each day of the week from Monday to Sunday.

X-axis: Day of Week

Y-axis: Number of Boards

Bars: Monday (50), Tuesday (55), Wednesday (60), Thursday (65), Friday (70), Saturday (75), Sunday (80)

As we can see from the chart, the number of boards baked increases steadily from Monday to Sunday, with the highest number of boards baked on Sunday (80) and the lowest number of boards baked on Monday (50). This indicates> that the demand for bagels is higher on the weekends than on the weekdays. It also suggests that the bagel shop has a consistent production schedule and can meet the demand of its customers.

. The chart below shows the number of bagels baked per day for each item in the inventory.

Chart: Number of Bagels Baked per Day by Item

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | Plain | Onion | Cheese | Chocolate |
| Monday | 300 | 200 | 150 | 100 |
| Tuesday | 320 | 220 | 160 | 110 |
| Wednesday | 340 | 240 | 170 | 120 |
| Thursday | 360 | 260 | 180 | 130 |
| Friday | 380 | 280 | 190 | 140 |
| Saturday | 400 | 300 | 200 | 150 |
| Sunday | 420 | 320 | 210 | 160 |

As we can see from the chart, plain bagels are the most popular item, followed by onion, cheese, and chocolate bagels. The number of bagels baked for each item also increases steadily from Monday to Sunday, mirroring the trend in the number of boards baked. This indicates that the bagel shop has a good understanding of its customers' preferences and can adjust its production accordingly.

h

1. Alerts

The last type of document we will discuss is alerts. Alerts are notifications that inform you of important events or situations related to your bagel business. They can help you monitor and manage your inventory, sales, production, and transactions more effectively. Alerts can be set up using various tools and methods, depending on the system you use. Here are some examples of alerts you can create for your bagel business:

5a. Reorder Alert:

This alert triggers when the quantity of a product in your inventory falls below its reorder level. The reorder level is the minimum amount of stock you need to have on hand to meet customer demand. When the reorder alert triggers, it prompts you to place an order for more of that product. This can help you avoid stockouts and lost sales.

To set up a reorder alert, follow these steps:

Identify the 'Quantity' and 'Reorder Level' fields in your Bagel Inventory List (Table 1).

Create a formula that compares the 'Quantity' of each item to its 'Reorder Level'. If the 'Quantity' is less than or equal to the 'Reorder Level', the formula should return a value that indicates the item needs to be reordered.

Set up an alert that triggers when the formula returns a value indicating that an item needs to be reordered. The alert could be an email, a pop-up notification, or any other type of alert that is appropriate for your system.

Specify the recipients of the alert. This should be the personnel responsible for reordering items.

Test the alert to make sure it triggers correctly and the notifications are sent to the right people.

5b. Low Inventory Alert:

Similar to the reorder alert, you can set up an alert that triggers when the quantity of an item falls below a certain threshold. This can help you avoid running out of popular items. For example, you can set up a low inventory alert for plain bagels, which are the most sold item. You can choose the threshold based on your average sales and expected demand. When the low inventory alert triggers, it notifies you that you need to increase your production or order more of that item.

To set up a low inventory alert, follow these steps:

Identify the 'Quantity' field in your Bagel Inventory List (Table 1).

Create a formula that compares the 'Quantity' of each item to a specified threshold. If the 'Quantity' is less than the threshold, the formula should return a value that indicates the item has low inventory.

Set up an alert that triggers when the formula returns a value indicating that an item has low inventory. The alert could be an email, a pop-up notification, or any other type of alert that is appropriate for your system.

Specify the recipients of the alert. This should be the personnel responsible for increasing production or ordering more of that item.

Test the alert to make sure it triggers correctly and the notifications are sent to>

the right people.

5c. Sales Trend Alert:

This alert triggers when sales of a particular item increase or decrease significantly. This can help you respond quickly to changes in customer demand. For example, you can set up a sales trend alert for onion bagels, which are the second most sold item. You can choose the criteria for what constitutes a significant increase or decrease based on your historical data and business goals. When the sales trend alert triggers, it notifies you that you need to adjust your production or marketing strategy accordingly.

To set up a sales trend alert, follow these steps:

Analyze your sales data to identify trends. You can use the Sales List (Table 7) and the Sales Summary List (Table 9) as sources of data.

Create a formula that calculates the percentage change in sales of each item over a specified period of time. For example, you can compare the sales of this week to the sales of last week, or the sales of this month to the sales of last month.

Create another formula that compares the percentage change in sales of each item to a specified threshold. If the percentage change is greater than or less than the threshold, the formula should return a value that indicates the item has a significant increase or decrease in sales.

Set up an alert that triggers when the formula returns a value indicating that an item has a significant increase or decrease in sales. The alert could be an email, a pop-up notification, or any other type of alert that is appropriate for your system.

Specify the recipients of the alert. This should be the personnel responsible for adjusting production or marketing strategy accordingly.

Test the alert to make sure it triggers correctly and the notifications are sent to the right people.

5d. Expiry Date Alert:

This alert triggers when the expiry date of a batch is approaching. The expiry date is the date by which a product must be sold or used before it goes bad. When the expiry date alert triggers, it notifies you that you need to sell or use the products as soon as possible. This can help you reduce waste and ensure quality.

To set up an expiry date alert, follow these steps:

Identify the 'Expiry Date' field in your Production List (Table 3).

Create a formula that calculates the number of days left until the expiry date of each batch.

Create another formula that compares the number of days left to a specified threshold. If the number of days left is less than or equal to the threshold, the formula should return a value that indicates the batch is expiring soon.

Set up an alert that triggers when the formula returns a value indicating that a batch is expiring soon. The alert could be an email, a pop-up notification, or any other type of alert that is appropriate for your system.

Specify the recipients of the alert. This should be the personnel responsible for selling or using the products as soon as possible.

> li>Test the alert to make sure it triggers correctly and the notifications are sent to the right people.

5c. Transaction Alert:

This alert triggers when a large transaction occurs. A large transaction is a transaction that exceeds a specified amount. When the transaction alert triggers, it notifies you of the details of the transaction, such as the date, time, amount, customer, and item. This can help you monitor for unusual activity and prevent fraud.

To set up a transaction alert, follow these steps:

Identify the 'Amount' field in your Transaction History List (Table 8).

Create a formula that compares the 'Amount' of each transaction to a specified threshold. If the 'Amount' is greater than the threshold, the formula should return a value that indicates the transaction is large.

Set up an alert that triggers when the formula returns a value indicating that a transaction is large. The alert could be an email, a pop-up notification, or any other type of alert that is appropriate for your system.

Specify the recipients of the alert. This should be the personnel responsible for monitoring transactions and preventing fraud.

Test the alert to make sure it triggers correctly and the notifications are sent to the right people.

Remember, the key to effective alerts is to make sure they provide useful information and prompt appropriate action. Too many alerts, or alerts that don't provide actionable information, can lead to alert fatigue and may be ignored. Let me know if you need further assistance!

Conclusion

To sum up, we have conducted a comprehensive analysis of the data related to inventory at the bagel shop. We have applied various techniques to display, structure, and enhance the data, as well as offered insights and suggestions for boosting the performance of the bagel shop. We hope that this report has been useful and informative. We appreciate any feedback or questions that you may have. Thank you for your attention and cooperation.