

**Fruit Stand
Database Project
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Overview:

Fruitopia is a small, family run fruit stand that operates out of Boston and LA. Both of their locations offer a variety of products including apples, bananas, avocados, strawberries, blueberries, grapes, and mangoes. The Boston and LA stand source each of their products from distinct suppliers in the Northeast and West region, respectively. All of Fruitopia's suppliers offer three options for shipping order quantities: small (50 ct), a medium (75ct), or a large (100ct). However, prices across suppliers vary. To maximize shelf life, each of Fruitopia's suppliers ship their products on the same day that they are harvested. Upon arrival, each item is assigned a unique serial number and expiration date, based on the product and shipping date. For example, bananas and grapes expire 28 days after shipment, avocados expire in 35 days, and blueberries, strawberries, and apples expire in 14 days. Both stands have storage rooms for holding excess inventory. When new shipments arrive, each product type is placed on a different shelf, which is recorded by an employee. If there is no shelf space left, these items are temporarily stored in inventory and are similarly recorded.

As a retail business, Fruitopia relies on inventory to generate profit. Therefore, developing an efficient inventory schedule for restocking on items is crucial. This can depend on multiple factors including current inventory levels, consumer demand, and suppliers. Together, these factors will inform the optimal restock date, when new orders are placed, and the restock quantity for each product. We will also estimate the minimum quantity each product should have in stock at all times, based on consumer demand. Finally, we will keep track of the current location of items in the store, specifically, if they are on the shelves or if they are in storage.

Reports:

1. Show the current quantity of each fruit

- a. This will tell us the stock of the whole inventory at any given time, allowing for stores to understand how much product they will have for the day and if they need to place any new orders for fruit that may be low on their current inventory at that specific period of time.

2. Show how many days are left until each item expires

- a. This will give the user an idea of what items need to be ordered soon and also it gives the user an idea of what fruits are going to waste due to too much product being ordered at a time.

3. For each item, count how many were used before their expiration date

- a. This will give Fruitopia a sense of their consumer demand for each of their fruits and whether they should adjust the minimum quantity for any product.
- 4. For each item, count how many were used before their expiration date as well as the date that they were used**
 - a. This will show how the consumer demand for each product varies based on the season and day of the week allowing for the business to get a good understanding on the usual sales of their products each week.
- 5. Show all of the suppliers' information and prices for each order quantity**
 - a. This will inform the user how expensive it is to source each product and whether they may look to source other products that are cheaper.
- 6. Show all of the suppliers' prices for each order quantity and their delivery dates**
 - a. This will inform the user of how the cost of sourcing each product fluctuates depending on the season / time of year as well as location.
- 7. Show all of the suppliers' prices for each order quantity and their restock dates**
 - a. This will inform the users which orders are the best for their needs in terms of quantity and how quick they need the shipment.
- 8. For each item, show how many days are left until the restock date**
 - a. This will give the user a sense of how long they have until they need to place new order allowing for more efficient purchases throughout the year.
- 9. For each item, show how many days are left until a new shipment arrives**
 - a. This will tell the user when they can expect each product to be restocked to prepare which fruit will be available for what days of the week. This can also tell the user when some sales can happen to get rid of older inventory.
- 10. Show how many days are left until the bananas, mangoes, and avocados expire**
 - a. This will give us an idea of how ripe the bananas, mangoes, and avocados are and when the user can expect more customers to buy these products.
- 11. Count the fruit that is currently expired**
 - a. This will allow the user to adjust the amount of fruit ordered for each shipment so there can be the minimal amount of fruit going to waste without selling out too often, helping the business not waste money but also being able to provide for customers.
- 12. Show the serial number and quantity of each fruit that is expired**
 - a. This will tell the user which fruits they need to throw out and also give the user an understanding on how much stock they need to buy the next time they purchase.
- 13. How many days are left until the bananas, mangoes, and avocados are ripe?**
 - a. This will tell the user when they can expect more customers to purchase these items and it will give specific information for each specific fruit.
- 14. Show each of the suppliers delivery history for the past month**

- a. This informs the user of the quality of the products that each of their suppliers deliver and their ability to deliver their products on time. Depending on this, the user might choose to keep or change suppliers.
- 15. For each product where the current date is past the restock date, show the delivery status**
- a. This will allow the user to keep track of delivery updates / if they can expect their orders to be delivered on time.
- 16. Count the number of total items that were sold in Boston vs in LA over the past month**
- a. This will indicate how the user should restock inventories in their Boston location versus in LA.
- 17. Show the time of the year each fruit is in season**
- a. This is a simple report but it will allow the user to know which fruit is cheapest to buy due to it being in season, allowing for the business to save money and also adjust inventory for each fruit based on the season in which they are most profitable.
- 18. For each day of the week, show the average amount of fruit that is sold**
- a. This will give us an idea of the day of the week most customers shop and when to aim to have new products delivered.
- 19. For each month this year, show total amount of fruits that were sold in both locations**
- a. This will give Fruitopia a general sense of the health of their business and how their sales have trended over time.
- 20. For each item, show the quantity that is on the shelf vs the quantity that is in storage**
- a. This will tell Fruitopia if they need to move any of their items out of storage and onto the shelves so that customers can buy them.