Requirements

Here's what you know:

- The warehouse has 20 storage spaces to hold melons for Bites, though Ubermelon may want to add more if business goes well.
- Each storage space can hold many melons of the 3 most popular types (Casaba, Crenshaw, and Watermelon). It's fine to mix melon types in each storage space.
- Each Casaba melon has a certain amount of possible slices depending on size and weight. When first processed and entered into the system, a Casaba melon will be measured and the possible slices will be recorded as an integer between 0 and 10.
- Crenshaw yields more slices (between 0 and 25).
- Watermelon yields the most slices (between 0 and 50).

For each melon, we need to be able to determine information such as:

- Melon type
- Arrival date
- Number of slices remaining
- Location (which space it's stored in)

(Keep in mind, it may not be best to store all this information

directly — are there things here that are better calculated?)

As new Bites orders are placed by customers, we need to keep track of:

- Which customer placed the order
- When the order was placed
- From which storage space the melon slices were taken
- How many slices were taken for the order

To Do

Design a database system to store data meeting the above requirements. Draw a diagram that shows the following:

- What tables do you need and what data needs to be stored in each table (i.e., column names for each table)?
- The data type of each column.
- Any relationships between the tables.

BRAINSTORMING

- Melon type
- Melon id
- Customer id
- Customer name
- Arrival date
- Order id
- Order date
- Location id
- quantity
- Calculations
    - spaces remaining
    - Casaba slices 0 - 10
    - Crenshaw slices 0 - 25
    - Watermelon slices 0 - 50

Table Ideas

- Melons

  Columns - type(P-key- varchar), arrival(date - varchar), location(integer), current_stock(integer)
- Orders

  Columns - id(P-key- serial), order_date(date - varchar), customer_id(f-key), type(f-key), quantity(integer)

- Customers

Columns - id(P-key-serial), customer_id(f-key), order_date(date - varchar), name(varchar), type(f-key), quantity(integer)

- Location
    - Column - id(P-key-serial), availability(integer)

RELATIONSHIPS

One : One

- Order-to-customer : one order can only have one customer

One : Many

- Melon-to-customer: one type can be bought by many customers
- Melon-to-order: one type can be part of more than one order
- Customer-to-melon : one customer can order many melons
- Customer-to-order: one customer can have many orders
- Order-to-melon : one order can have different melons

Many : Many