Drake Industries has been successfully manufacturing labels, data plates, and ID tags for almost five decades. They provide business to customers in a wide variety of industries from oil and gas to food and beverage. The company is looking to increase their profitability by improving their inventory management strategy. Currently, they are using a pen and paper method to maintain their records. With a broad spectrum of customers and products, their need for a more efficient and comprehensive material inventory system is vital. Drake occasionally experiences loss of final product due to an inconsistency of information. An efficient inventory management system can help Drake Industries better understand where they store their final products.

Affordable dynamic bin system where containers are distinguishable by the fulfillment date of the product most recently added. Once bin capacity is met, no additional content is to be added to container until the expiration of last product added is reached. The bins are sorted via this date making it easy to identify and dispose of obsolete goods, saving space and reducing the time and effort necessary to search for desired contents. Inside the bins, products are organized according by item ID and color-coded stickers denoting the production process undergone by said product. New industrial storage racks will be implemented in order to hold bins. The shelves are ergonomically designed to fulfill storage handling duties without the use of a ladder. Shelves also provide a spacious surface allowing for bins to be easily shifted. The final quantities of shelves and bins will be determined upon implementation of the system.

We approached this problem with two related systems: a Microsoft Excel document and a Microsoft Access document. The Excel file will help organize the storage of final products making it easy to locate finished goods; it will be easily manipulated to fit their needs. This will eliminate wasted time and movements when searching for products to fulfill an order. The Access document will be used to replace their “sticky” method shown below. In Access, Drake Industries will store all information pertinent to a products process. The whole database will be accessible to a select few, whereas the input documents will be accessible to the employees who need to input data. This will insure that the integrity of the data is upheld. The proposed systems will allow more employees to access the finished product inventory to locate items needed for orders, and act as a stepping stone toward a potential future ERP system. The proposed system will replace the current system, which consists of a manila folder that has a sticker (“sticky”) on it to identify the product and its information. This folder was passed around between all the different processes needed for the product to be created, putting it at risk for invalid information. We created tables to store information on customers, orders, and inventory. The tables are related to ensure that data will not be inputted more than once. This will uphold the integrity of the data.

The Microsoft Access Database we built to track finished good inventory for Drake Industries consists of the following aspects:

- **Tables** – used to store information
- **Forms** – used to easily input data into the tables
- **Queries** – used to ask the data questions

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We created queries to perform the following tasks:

- Generate a list to export to Excel system
- Search data to find necessary information, such as, who ordered what and when

The picture shows a past order at Drake Industries

- Each new sticker on the right side of the folder is for a new order.
- Inconsistent information for storage location of stock is circled

- Invest in new storage racks and bin containers.
- Purchase required software necessary to implement future ERP system.
- Stock finished goods into bins in chronological order according to order fulfillment date.
- Build on current color-coding organizational tool used to distinguish products based on undergo manufacturing processes, allowing for efficient visualization and sorting.
- Digitally record and update inventory levels of finished goods in timely manner.
- Follow new proposed process for pulling and stocking in order to optimize integration of bin storage system with electronic data.
- Train all departments for the access and use of required software. Color-coded containers are suggested for easier and quick recognition of the supplies that will be pulled.

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