

Executive Summary

For my Final Project, I am building an Inventory System for Dream Chocolate Company. Dream chocolate is a chocolate manufacturing company that produces Organic Chocolates. It has various product segments and each product segment has different types of chocolate products. Customers can order products over the phone through the customer service representative. After the order is received it is processed by the Sales Department. This project will assist the Sales department to maintain a Real Time Inventory system and manage Customer Database. Also it will help the company to automate Customer Interaction by automatically sending emails to the customer once the order is processed and the order is shipped. This will increase the Line of Visibility for the customers as they are updated on their order status.

Following is a brief overview of my project:

1. Maintain customer database: Allows the company to add new customers to the customer database and also edit current customer information.
2. Create Purchase Order: The sales department will be able to generate a Purchase Order once the order is received.
3. Real time Inventory management: They will be able to see the current inventory level available to sale and back order report.
4. Customer Interaction: The system will automatically email the customers once the order is received and also when the order is shipped.
5. Update Price: This system will allow updating the current product prices from the company's website so that the prices are same in the system and the website.
6. Order Status: The sales department will be able to track each Purchase Order's status.
7. Efficient Picking and Packing Process: This system will allow the sales department to generate picking slip which will include the product description, quantity and exact location of the inventory. This will expedite the picking and packing process.



System Implementation

In the System Page, there are 5 different Buttons that allows the user to do various different things.

1. Create New Purchase Order: This Button enables the user to find a customer and create a purchase order. The user is required to select a customer before he/she will be able to create a new purchase order.

The screenshot shows a 'Find Customer' dialog box with the following fields and values:

Customer Last Name	City	State	Phone Number	Row #
MULWEE	Fort Worth	TX	(817) 546-0912	153

Buttons at the bottom: Create P.O., Add New, Find Next, Edit, Close.

Once the Purchase order form is opened, it will automatically accumulate the customer information. The user will have the option to select the current customer Billing Address as the shipping address or enter different Shipping Address. The user will be required to fulfill the Shipping address field before saving the form.

The screenshot shows the 'Purchase Order' form with the following details:

P.O.# 11263 **Dream Chocolate Purchase Order**

Customer: EVELYN SABO **Phone Number:** (713) 263-1944

Shipping Address: 5617 Hoover St., Suite A **P.O. Date:** 11/10/2011 2:25:49 PM

Houston TX 77092-3100 Same as Billing

Since Dream Chocolate has various Product segments and products, the form will allow the user to select a particular product segment from the drop down box. According to the user's selection of the product segment, it will automatically accumulate the second drop down box with respective products in that segment. This will save the user a lot of time as he/she doesn't have to scroll through all the products to select a particular product.

The first screenshot shows a 'Product Segment' dropdown menu with the following options:

- Genuine Series Bars
- HuckleBerry Products
- Organic Chocolate Bars
- Specialty Bars/Hawaiian Chocolate
- Specialty Bars/Life Style Chocolate Bars
- Specialty Bars/OmniPeace
- State Shape Bar

The second screenshot shows a 'Product description' dropdown menu with the following options:

- Coconut Almond Creme Milk
- Caramel Creme Latte Milk
- Coconut Curry Milk
- Crystallized Ginger Dark
- Dark Mint
- Dark Espresso
- Dark Chocolate
- Dark Lavender

Once the product is selected, the next box will display the quantity available for that particular product. The quantity available is automatically calculated according to the previous purchase orders entered. It is the difference between the quantity in the warehouse and order in process. This will tell the user the quantity he can sell and without being out of stock. This will give the user the quantity of real time inventory and also he/she can inform the customer about possible delays in order. If the user inputs the quantity more than the quantity available, then the form will ask the user if he/she wants to create a back order for that product. If the user chooses to create a back order, then the form will make input the difference as back order otherwise the back order quantity will be 0 and the quantity will be equal to the quantity available. The user can also input the back order quantity themselves.

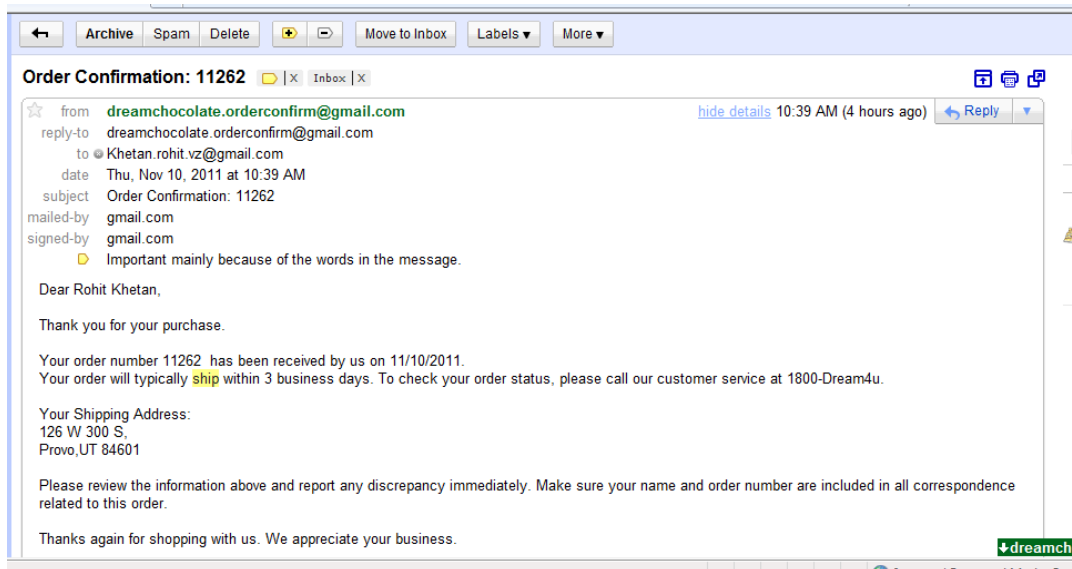
The form has different controls in place.

1. If the user doesn't enter quantity in the quantity field then the form will prompt the user to enter minimum 0 quantities.
2. When the user clicks the save button, the form checks if all the required fields are entered. If not it will prompt the user to enter value in that particular field.
3. Also, it will ask the user if they want to save and quit the form before saving the information
4. When the user clicks the Cancel Button, the form will ask the user, "Are you sure you want to cancel the transaction?"

These controls will help to avoid any mistakes while entering the order.

Product Segment	Product description	Qty Avail	Qty	B.O.

Once the user hits the Save Button, the firm automatically updates the Purchase order sheet with order and updates the quantity available for each product in the Inventory detail sheet. Also the firm will send the customer an email with the order confirmation number (Purchase Order number), once the user chooses to save the order. This will help to update the customer with their order and also acknowledge that the order was received and is in process.



2. Customer DataBase: This button will enable the user to update the current customer database and add new customer into the database.

1. Update Current Customer Information: The user will first be required to find the customer in the database before he/she can edit it. The user can search for customer through their last name, city, state or phone number or all of these criteria. Once they have selected the customer, they can edit their current information and save it. Once the Save Button is click, it automatically updates the customer database.

Row	ID	First Name	Last Name
203	202		

Address

City State ZIP

Phone

Email Address

Cancel Save

2. Add New Customer: The user can add new customer to database. They will be required to enter all the information before they can save the customer information. Once all the information is collected and the user choose to save, the firm will automatically save the information in the customer database and assign the customer with a unique customer ID. If all the information entered matches with current customer information, then it will prompt the user that the customer already exists in the database and will not save the information. This process will expedite maintaining customer information and will also make sure all the customer information is collected.
3. Find Customer: It will expedite the search for current customer in the database

3. Find Purchase Order: This macro will enable the user to perform the following tasks:
 1. Search for existing Purchase order in the database with Purchase Order Number or Customer Last Name or both. Once the user has performed the search, it will accumulate the form with the Date of the P.O, Customer Phone Number and the shipping status. This is included with an intend to expedite the search process and give the user immediate feedback.

2. Open Existing Purchase Order: This will enable the user to view the purchase order in a well formatted sheet. The system will automatically accumulate all the information based on the search.

Dream Chocolate				
Purchase Order				
P.O. #	11251	Date	11/9/2011 10:53:53 AM	
Customer	ANGELO CAMARANO		Phone Number	(903) 629-3856
Billing Address			Shipping Address	
5428 Fm 69			5428 Fm 69	
Coke	TX	75431	Coke	TX 75431
S.No	Product Segment	Product Detail	Quantity	Back Order
1	Specialty Bars/Life Style Chocolate Bars	Golf Lover Milk	12	0
2	State Shape Bar	California	25	0
3	Specialty Bars/Hawaiian Chocolate	Hava Kava Coconut Ginger	5	0
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				

Packing Slip

Shipping Info

When the user opens the Purchase Order, he/she can also generate a packing slip and also update the shipping information for that particular P.O.

1. Packing Slip: When the user clicks this button, it brings up a Packing Slip form. This form contains the Product Descriptions, Quantity and the Actual Location of the product in the ware house. The products in this form are arranged according to their location in the warehouse, so that the picker doesn't have to go back and forth the selves during the

4. Update Price: This button will do a Web Interaction and pull the current price of the products from the company's website into the Product Detail Sheet for each product. This process will ensure that there is no discrepancies between the website price and the price in the system.

5. Back Order Report: This Button will summarize all the Back order quantities for each product and generate a back order report. It is intended to make the department aware about the back orders generated and to order more of these products.

	A	B	C	D
1	S.No	Product Segment	Product Description	Quantity
2	1	Organic Chocolate Bars	Coconut Almond Creme Milk	10
3	2	Organic Chocolate Bars	Caramel Creme Latte Milk	20
4	3	HuckleBerry Products	Rocky Mountain Gournment HuckleBerry	32
5	4	Specialty Bars/Hawaiian Chocolate	Hava Kava Mango Mint	58
6	5	Specialty Bars/Life Style Chocolate Bars	Biker Bar Milk	68
7				

This report will help to decrease the lag time in fulfill all the back orders and will stop the back orders from building up. It will also decrease the number of days in order fulfillment and will expedite the sales process.

Learning and Conceptual Difficulties

After working in this project, now I am comfortable working with forms. I learned different characteristics of forms and learned how to manipulate values within forms. This project also taught me how important primary keys are while working with values in different sheets. It has also helped me to increase my understanding of Web Interaction and pulling information of from the web. The web Interaction I did in this project required me to open a unique page for each value I wanted to import. But after a long struggle and using some loop techniques, I was able to perform the Web Interaction and get all the prices for different products from the company website.

In this project, most of my inputs come from the forms and I was having hard time manipulating those inputs in excel. But after learning about the CInt and Cstr, I was easily able to manipulate my inputs. Also I has difficulties generating the Picking Slip but after some research and using the techniques I learned from this class, I was able to generate the Picking Slip.

Overall it was a great learning experience and about working in this project, many concepts that I didn't understand before became very clear to me (for example web interaction, email).