



POLYTECHNIC UNIVERSITY OF THE PHILIPPINES

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MILK TEA ORDERING AND INVENTORY MANAGEMENT SYSTEM FOR SUNTEA PH

In partial fulfillment of the requirements for the course:

COMP 20083 – OBJECT-ORIENTED PROGRAMMING

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TECHNICAL REPORT FOR APPLICATION

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Executive Summary

Milk tea shops have become a strong driving force in the franchising sector in the Philippines (Kotik, 2019). This is due to the ongoing milk tea craze in the country, and the number of customers that patronize it only keeps on increasing as time goes by. Due its success and popularity, there are milk tea shops in the country that have upgraded to a complete Point of Sales (POS) system instead of using an Electronic Cash Register (ECR) and credit card terminals.

Suntea PH, a popular milk tea shop in Manila, has also upgraded to a point of sales (POS) technology, which is accompanied by an online inventory management system. Despite the undeniable benefits of these technologies, there are also several disadvantages in terms of convenience which were assessed by the proponents. This includes the disorganized and confusing interface of the existing system. Another problem is the expensive cost and maintenance of the online inventory which occupies a substantial percentage of the shop's expenses. And lastly, the existing system only has limited features which is inconvenient and undesirable for the staff operating it.

As a response to the assessed problems, the proponents developed a user-friendly, and convenient Ordering and Inventory Management System from December 2019 to May 2020. The developed system contains features that majority of the current POS and inventory management systems do not have. Additionally, this system (exclusively made for Suntea PH) can now efficiently provide the combined needs of Suntea PH's owners in selling their products and also, keeping track of their inventory.



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PART I – PROJECT SPECIFICATIONS REPORT

1.1. INTRODUCTION

Nowadays, milk teas are considered as one of the most popular trends in the industry of food and beverage. People love milk tea because of the affordable price, good taste, and health benefits. With that, a lot of entrepreneurs have decided to utilize this great opportunity which led to the remarkably unbelievable booming business of milk tea shops.

Majority of the food and beverage shops, especially those big ones, are now using touch screen point of sale (POS) system, with a cash register and a receipt printer connected on it, to lessen the time being consumed by customer transactions.

While talking about business inventory, most of the milk tea shops, especially the business ventures, are still using the traditional way of making lists for their inventory: through a pen and a paper. On the other hand, bigger shops are now using an inventory management system which is sometimes connected to the POS system.

However, it seems that these systems also have few disadvantages and Suntea PH, a milk tea shop business located in Manila, is one of those businesses that is struggling with those. To solve those existing problems, the proponents of this project have decided to implement an ordering and inventory management system exclusively for Suntea PH.



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This will be important as it will serve as a first step in helping other milk tea shops as well.

The proponents aim to satisfy Suntea PH with the user-friendly interface and extended features of ordering and inventory management system. The system aims to increase the efficiency and convenience of the said milk tea shop to have greater work productivity and performance.

1.2. STATEMENT OF THE PROBLEM

The proponents assessed the problems encountered by milk tea shops like Suntea PH with their current systems. They came up with the conclusion that existing systems such as POS system and online inventory management system are not really that convenient because of:

- **Having a disorganized and confusing interface.** The graphical user interface (GUI) of the current system puts all the features in one frame that can cause a confusion to the user and it has minimal labels for the buttons too.
- **Being expensive.** A POS system with an online inventory management system can be very costly and it occupies a large portion of the shop expenses. Also, other milk tea shops that are still small and starting cannot afford to purchase those.
- **Having limited features that gives the users a hard time.** Some features like seeing the current amount while the customer is ordering, applying discounts for person with disabilities (PWD) and senior citizens,



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field for special requests, etc. are not available in most of the current systems and it can lead to some problems.

1.3. PROJECT OBJECTIVES

1.3.1. General Objectives

The Milk Tea Ordering and Inventory Management System intends to give solution to the problems of the milk tea shops with their current systems by creating a user-friendly, efficient, and convenient system.

The said system will provide the needs of the shop owners, especially the owners of Suntea PH, in selling their products and keeping track of their inventory.

The graphical user interface of the system is organized, and it will not lead to the confusion of those who will use it. It will also contain some features that most of the current POS and inventory management systems do not have.

1.4. SCOPE AND LIMITATION

The Milk Tea Ordering and Inventory Management System as a whole will include a security before accessing the system itself through a login form, which is exclusive for the staffs and the owners of Suntea PH only. It can also be operated through a personal computer, laptop, or any other similar devices.



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In the ordering part of the system, it will include the ordering process itself to be done by the assigned staff of the shop who will accept the desired products of the customers, one at a time. An additional feature in the ordering process is the discount application for those customers who are persons with disabilities (PWD) and senior citizens. Another feature that is included is the optional printing of receipt if requested by the customer. The ordering system will also keep records of the customer names and the date of the orders.

On the other hand, in the inventory management part, the system includes the inventory for the supplies of Suntea PH only. It also includes features such as adding an item, editing item information, displaying reports, and checking of supply quantity.

However, there are processes and data that will not be captured by the system itself. First, the system cannot be accessed by the customers online. Second, the system cannot accept delivery requests from their online website or even phone calls. Third, other payment methods such as payment from bank cards are not considered by the system. Fourth, in case the system unexpectedly closes, the ongoing orders from the customer will not be saved. Fifth, the ordering system can only accept one product size per order. Sixth, the inventory management system cannot manage the inventory for product ingredients. Seventh, the user cannot do a quick search in the inventory system. Lastly, this ordering and inventory management system cannot be operated through touchscreen devices.



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1.5. PROJECT ASSUMPTIONS

The following are the project assumptions of the proponents in case the Milk Tea Ordering and Inventory Management System is implemented:

- The staff members and owners of Suntea PH will find the ordering and inventory management system convenient.
- The staff members and owners of Suntea PH will prefer this system than the current system that they are using.
- The customers of the shop will enjoy the faster transaction through this system.
- There will be no miscalculations in the supplies inventory of the system.
- The system will be improved in the future to solve other problems.
- The project will help other milk tea shops, especially the small ones, as well in the future.

PART II – DATABASE SPECIFICATIONS REPORT

2.1. DATA DICTIONARY

The following tables are for the data dictionary of Milk Tea Ordering and Inventory Management System:



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Table Name: orders Table Description: Contains the overall records or orders from the ordering system Related Table: customer								
Key	Field Name	Data Type	Length	Optional	Default Value	Field Validation	Description	Sample Data
PK	Record_no	Integer	11	N	None (Auto-Increment)	Must be equal or greater than 1	Unique identifier of overall records or orders.	1
	Customer_Name	Short text	30	N	None	None	Name of customer.	Claire Redfield
	Quantity	Integer	11	N	0	Must be equal or greater than 1	The quantity per drink or snack that was ordered.	4
	Product_code	Short Text	20	N	None	None	Identification codes assigned to different products in the menu with consideration to its size.	MAXICACAO D500
	Item_CodeNo	Short Text	30	N	None	None	Identification codes assigned to different products in the menu based on the supply/supplies used for a particular product.	CUPS500
	Product_Name	Short Text	30	N	None	None	Actual name of the product ordered.	Cacao (500 ml)
	Date_of_Order	Short Text	20	N	None	dd/MM/yy yy	Current date when the	22/04/2020



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							order was taken.	
	Amount	Float	Default	N	0	Must be greater than 0	Cost or Price of particular order.	79
	Applied_Discount	Short Text	20	N	None	Values can only be; 'none', 'Senior Citizen' or 'PWD'	Type of discount availed.	PWD
	Special_Instructions	Short Text	50	N	None	None	Special instructions or request in a particular order	Less ice, more foam.

Table Name: customer Table Description: Contains the records of orders of a certain customer Related Table: orders, items								
Key	Field Name	Data Type	Length	Optional	Default Value	Field Validation	Description	Sample Data
PK	Record_num	Integer	11	N	None	Must be equal or greater than 1	Unique identifier of records or orders of a customer.	1
	Customer	Short text	30	N	John Doe	None	Name of the customer	Jill Valentine
	Qty	Integer	11	N	0	Must be 1 or greater	The quantity per drink or snack that was ordered.	3
	Prod_Code	Short Text	20	N	None	None	Identification codes assigned to different products in the menu with consideration to its size.	SNACKCHI CNDIP



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Item_Code	Short Text	30	N	None	None	Identification codes assigned to different products in the menu based on the supply/supplies used for a particular product.	CND
Prod_Name	Short Text	30	N	None	None	Actual name of the product ordered.	Chic n' Dip
Date	Short Text	20	N	None	dd/MM/yyyy	Current date when the order was taken.	21/04/2020
Amt	Float	Default	N	0	Must be greater than 0.	Cost or Price of particular order.	89
Discount	Short Text	20	N	none	Values can only be; 'none', 'Senior Citizen' or 'PWD'	Type of discount availed.	Senior Citizen
Instructions	Short Text	50	N	None	None	Special instructions or request in a particular order	No ice.

Table Name: items
Table Description: Contains the item codes and the quantity used upon ordering.
Related Table: customer, supplies

Key	Field Name	Data Type	Length	Optional	Default Value	Field Validation	Description	Sample Data
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PK	Item_Codes	Short Text	30	N	None	None	Unique codes assigned to different products in the menu based on the supply/supplies used for a particular product.	WOC SOL
	Qty	Integer	20	N	0	Must equal or greater than 0	Number of supplies used upon ordering.	16

Table Name: supplies Table Description: Contains the current records of an item in the inventory Related Table: items, activity								
Key	Field Name	Data Type	Length	Optional	Default Value	Field Validation	Description	Sample Data
PK	SUPPLIES_ID	Integer	30	N	None (Auto-increment)	Must be equal or greater than 1	Permanent and system - generated identifier for every item.	1
	ITEM_CODE	Short text	20	N	None	None	Unique identifier of the item which can be customized by the admin	CPS0500
	ITEM_NAME	Short text	50	N	None	None	Name of the supply in the inventory	Cups 500ML
	ITEM_QTY	Integer	11	N	None	Must be equal or greater than 0	Current number or quantity of the item	100



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	ITEM_STATUS	Short text	30	N	None	Values can only be; 'In Stock', 'Low on Stock' or 'Out of Stock'	Describes the status of the item based on its current quantity	Above Stock Level
	ITEM_CATEGORY	Short text	20	N	None	Values can only be 'Snacks' or 'Drinks'	Describes what is the category of the item	Snacks
	DATE_ADDED	Date (db timestamp)	-	N	Current timestamp	yyyy-MM-dd	Records when the it was added in the database	2020-05-05
	DATE_UPDATED	Date (db timestamp)	-	N	Current timestamp	yyyy-MM-dd	Records when the item was update	2020-05-29

Table Name: activity Table Description: Contains the records of the activities of the items in the inventory Related Table: supplies								
Key	Field Name	Data Type	Length	Optional	Default Value	Field Validation	Description	Sample Data
PK	ACTV_ID	Integer	11	N	None (Auto-increment)	Must be equal or greater than 1	Permanent and system - generated identifier for every item.	1
	ITEM_Code	Short Text	30	N	None	None	Unique identifier of the item that is customized by the admin	CPS0500
	QUANTITY	Integer	11	N	None	Must be equal or greater than 0	Current number or quantity of the item	100
	ACTIVITY	Short	50	N	None	Values can	Describes	Restock



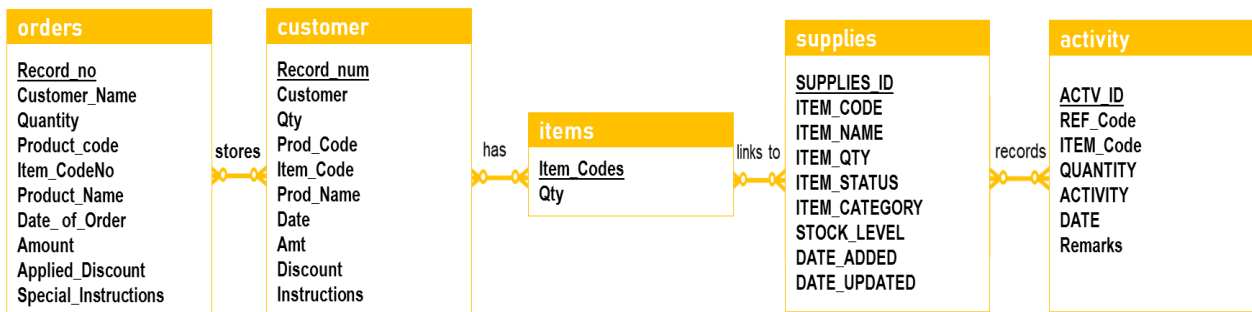
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		text				only be 'Restock' or 'Deducted'	what is the category of the item	
	DATE	Date (db timestamp)	-	N	Current timestamp	yyyy-MM-dd	Records when the item was update	2020-05-03
	Remarks	Short text	30	N	None	None	Extra comments	Short

Table Name: verify Table Description: Contains the login details and validation for the ordering system. Related Table: None								
Key	Field Name	Data Type	Length	Optional	Default Value	Field Validation	Description	Sample Data
PK	PASSWORD	Short Text	30	N	None	None	Saved password for account.	ilovesuntea
	COMPANY_ROLE	Short Text	30	N	None	None	Role of the account's user in the company.	Manager

2.2. DATABASE DIAGRAM

The following is the database diagram or the Entity-Relationship Diagram (ERD) of Milk Tea Ordering and Inventory Management System:





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PART III – APPLICATION SPECIFICATIONS REPORT

3.1. FEATURES SPECIFICATION

The following are the specification of the Milk Tea Ordering and Management System features:

Feature ID:	Feat-001
Feature Name:	ORDERING SYSTEM START FORM
User Story:	
1.	The user must be able to see the logo of the client, which is Suntea PH.
2.	The user must be able to see the <i>Login</i> and close buttons.
3.	When the user clicks the <i>Login</i> button, he will proceed to Access Mode Form .
4.	When the user clicks the close (x) button, a Confirmation Form that says, "Are You Sure You Want To Exit The System?" will appear.

Feature ID:	Feat-002
Feature Name:	ACCESS MODE FORM
User Story:	
1.	The user must be able to see the <i>Cashier</i> , <i>Manager</i> , and close buttons.
2.	When the user clicks the <i>Cashier</i> button, he will gain access to the Ordering System only and he will proceed to the Login Form .
3.	When the user clicks the <i>Manager</i> button, he will gain access to both Ordering and Inventory Management Systems and he will proceed to the Login Form .
4.	When the user clicks the close (x) button, he will go back to Ordering System Start Form .



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Feature ID:	Feat-003
Feature Name:	LOGIN FORM
User Story:	
1.	The user must be able to see the <i>Log In</i> and close buttons.
2.	The user must be able to see the text fields that require to input <i>ID Number</i> , <i>Name</i> , and <i>Password</i> .
3.	The user must be able to see the <i>Show Password</i> checkbox.
4.	The user must be able to see the <i>Forgot Password?</i> link.
5.	The user must be able to input ID number, name, and password in their respective text fields.
6.	When the user clicks the <i>Show Password</i> checkbox, his password will be shown in the <i>Password</i> text field.
7.	When the user clicks the <i>Forgot Password?</i> link, he will proceed to the Identity Verification Form .
8.	When the user clicks the <i>Log In</i> button with a wrong ID number or password that does not match in the database, a Message Form that says, "The Account Is Invalid!" will appear.
9.	When the user clicks the <i>Log In</i> button with incomplete inputs, a Message Form that says, "All Fields Require An Input!" will appear.
10.	When the user clicks the <i>Log In</i> button with correct inputs with accordance to the <i>verify</i> table in the database, he will proceed to the Main Menu Form .
11.	When the user clicks the close (x) button, he will go back to Ordering System Start Form .

Feature ID:	Feat-004
Feature Name:	IDENTITY VERIFICATION FORM
User Story:	
1.	The user must be able to see the <i>Confirm</i> and close buttons.
2.	The user must be able to see the <i>Question</i> combo box.
3.	The user must be able to see the text field that requires to input the <i>Answer</i> .
4.	The user must be able to input the answer in its respective text field.
5.	When the user clicks the <i>Question</i> combo box, he will be able to see a set of questions to be answered correctly.
6.	When the user clicks the <i>Confirm</i> button with a wrong or unmatched answer, a Message Form that says, "Incorrect Answer!" will appear.



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7. When the user clicks the *Confirm* button with the correct answer, he will proceed to the **Change Password Form**.
8. When the user clicks the close (x) button, he will go back to **Access Mode Form**.

Feature ID: Feat-005

Feature Name: CHANGE PASSWORD FORM

User Story:

1. The user must be able to see the *Confirm Password* and close buttons.
2. The user must be able to see the *Show New Password* checkbox.
3. The user must be able to see the text fields that requires to *Enter New Password* and *Confirm New Password*.
4. The user must be able to input the new password twice in their respective text fields.
5. When the user clicks the *Show New Password* checkbox, his new password will be shown in the *Confirm New Password* text field.
6. When the user clicks the *Confirm Password* button with unmatched passwords, a **Message Form** that says, "Incorrect! They Are Not Matched!" will appear.
7. When the user clicks the *Confirm Password* button with matched passwords, a **Message Form** that says, "Password Changed!" will appear and the password will be updated in the *verify* table of the database. The user will then go back to **Access Mode Form**.
8. When the user clicks the close (x) button, he will go back to **Access Mode Form**.

Feature ID: Feat-006

Feature Name: MAIN MENU FORM

User Story:

1. The user must be able to see the scroll pane containing the drinks and snacks being sold by Suntea PH.
2. The user must be able to see the *Go To Inventory*, *Confirm Order*, *Refresh*, and *Delete* buttons.
3. The user must be able to see the combo box on the upper right corner of the form that contains a set of options.
4. The user must be able to see the *Senior Citizen* and *PWD* radio buttons.
5. The user must be able to see the *Date* that changes depending on the actual date in the device used.



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6. The user must be able to see the *Total*, *Applied Discount*, *Payment Amount*, and *Order No.* that changes after every new order.
7. The user must be able to see the *List Of Orders* table which contains the attributes: *Order #*, *Quantity*, *Product Code*, *Amount*, and *Special Instructions*. The *List of Orders* table will be empty by default since any unprocessed records in the table will all be deleted (as well as in the customer table of the database) upon entering the **Main Menu Form**.
8. When the user clicks a product or snack in the scroll pane, he will proceed to its **Ordering Form**.
9. When the user clicks either a *Senior Citizen* or *PWD* radio button or both, the 20% equivalent of the total will appear in the *Applied Discount* and the deducted value of the total from the applied discount will appear in the *Payment Amount*.
10. When the user clicks the *Refresh* button after a new order, the *List Of Orders* will be updated based on the new order.
11. When the user clicks the *Confirm Order button*, he will proceed to the **Customer Payment Form**.
12. When the user clicks the *Delete* button without clicking a row in the *List Of Orders* table, a **Message Form** that says, "Please Select A Record To Delete First!" will appear.
13. When the user clicks the *Delete* button while the *List Of Orders* has no records, a **Message Form** that says, "There Is No Record To Delete." will appear.
14. When the user clicks a row in the *List Of Orders* table and also clicks the *Delete* button, a **Message Form** that says, "Record Deleted!" will appear. Then, the clicked row will be actually deleted from the table as well as in the *customer* table of the database.
15. When the user, specifically a manager, clicks the *Go To Inventory* button, he will proceed to the Inventory System. A staff will not be able to proceed to the Inventory System.
16. When the user, clicks the combo box, the name of the user and *Logout* will be shown. If he clicks *Logout*, a **Confirmation Form** that says, "Are You Sure You Want To Logout?" will appear. If the user confirms, any remaining or unprocessed records by any means in the *List of Orders* table will be deleted as well as in the *customer* table of the database.

Feature ID: Feat-007

Feature Name: DRINK ORDERING FORMS

User Story:

1. The user must be able to see the drink being sold, its riders, and its available sizes.



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2. The user must be able to see the quantity selector (+ and -) buttons for the riders and quantity, and also, the *Order This Drink* button.
3. The user must be able to see the toggle buttons for the available price and size of the drink.
4. The user must be able to see the text fields that shows Rider Quantity, *Quantity* (Drink), and *Amount*
5. The user must be able to see the text field that requires to input *Special Instructions*.
6. The user must be able to input the special instructions based on the demand of the customer in its respective text field.
7. When the user clicks the + button beside the Quantity text fields, the quantity of the rider or drink will increase by 1 and it will be shown in the text field.
8. When the user clicks the - button beside the Quantity text fields, the quantity of the rider or drink will decrease by 1 and it will be shown in the text field.
9. When the user clicks a toggle button below the *Price & Size* label, the indicated price in the button will be added in the *Amount* text field, together with the price of the selected rider/s if there is any, and multiplied by its quantity.
10. When the corresponding item of a specific size runs out of stock in the Ordering System, a message that says that the item is out of stock will appear in the location of the toggle button of that size
11. When the user clicks the *Order This Drink* button without selecting a price and size, a **Message Form** that says, "Choose The Size of the Drink First!" will appear.
12. When the user clicks the *Order This Drink* button after clicking a toggle button, the record will be added to the *customer* table in the database and will go back to the **Main Menu Form**. The data of the order will be shown in the *Checkout Summary* section.
13. When the user clicks the close (x) button, he will go back to **Main Menu Form**.

Feature ID:	Feat-008
Feature Name:	SNACK ORDERING FORMS
User Story:	
1.	The user must be able to see the product being sold, and its available sizes.
2.	The user must be able to see the quantity selector (+ and -) buttons for the product quantity, and also, the <i>Order</i> button.
3.	The user must be able to see the toggle buttons for the available price and size of the snack.



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4. The user must be able to see the text fields that shows *Quantity*, and *Amount*.
5. The user must be able to see the text field that requires to input *Special Instructions*.
6. The user must be able to input the special instructions based on the demand of the customer in its respective text field.
7. When the user clicks the + button beside the *Quantity* text field, the quantity of the snack will increase by 1 and it will be shown in the text field.
8. When the user clicks the - button beside the *Quantity* text field, the quantity of the snack will decrease by 1 and it will be shown in the text field.
9. When the user clicks a toggle button below the *Price & Size* label, the indicated price in the button will be added in the *Amount* text field and multiplied by its quantity.
10. When the corresponding item of a specific size runs out of stock in the Ordering System, a message that says that the item is out of stock will appear in the location of the toggle button of that size
11. When the user clicks the *Order* button without selecting a price and size, a **Message Form** that says, "Choose The Size of the Snack First!" will appear.
12. When the user clicks the *Order* button after clicking a toggle button, the record will be added to the *customer* table in the database and he will go back to the **Main Menu Form**. The data of the order will be shown in the *Checkout Summary* section.
13. When the user clicks the close (x) button, he will go back to **Main Menu Form**.

Feature ID:	Feat-009
Feature Name:	CUSTOMER PAYMENT FORM
User Story:	
1.	The user must be able to see the number, clear, <i>OK</i> , and close buttons.
2.	The user must be able to see the text fields that require to <i>Input the customer's name</i> and <i>Input the amount of cash received from the customer</i> .
3.	The user must be able to input the customer's name in its respective text field.
4.	When the user clicks the number buttons, the numbers indicated in the clicked buttons will be shown in the text field above as an input.
5.	When the user clicks the clear button, the content of the text field above will be erased,



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6. When the user clicks the *OK* button and the value of the received in the text field above is lower than the payment amount in the **Main Menu Form**, a **Message Form** that says, "Insufficient Amount!" will appear.
7. When the user clicks the *OK* button with incomplete inputs, a **Message Form** that says, "All Fields Require An Input!" will appear.
8. When the user clicks the *OK* button with complete inputs and sufficient cash value, he will proceed to the **Receipt Form**.

Feature ID: Feat-010

Feature Name: RECEIPT FORM

User Story:

1. The user must be able to see the *Next Order* and *Print Receipt* buttons.
2. The user must be able to see the text area that contains the receipt information.
3. When the user clicks the *Next Order* button, he will go back to the **Main Menu Form** for a new set of orders.
4. When the user clicks the *Print Receipt* button, the receipt information in the text area will be printed.

Feature ID: Feat-011

Feature Name: CONFIRMATION FORMS

User Story:

1. The user must be able to see the form asking if the user is sure in logging out or exiting the system.
2. The user must be able to see the *Yes*, *No*, and close buttons.
3. When the user clicks the *Yes* button, he will either logout or exit the system.
4. When the user clicks the *No* or close button, he will stay in the form where he was before the **Confirmation Form**.

Feature ID: Feat-012

Feature Name: MESSAGE FORMS

User Story:

1. The user must be able to see the messages that the form states.
2. The user must be able to see the *OK* button.



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- 3 When the user clicks the OK button, he will go back to the form where he was before the **Message Form**.

Feature ID:	Feat - 013
Feature Name:	DASHBOARD FORM
User Story:	
1.	The user must be able to see recommended actions that the administrator must manage in the system.
2.	The user must be able to click the tabs and buttons for each menu. If the user clicks on <i>In-stock</i> tab, they will be redirected to the In-Stock Form . Similar with <i>Reports</i> , <i>Checking</i> , and <i>Restock</i> tab.
3.	The user can see in the text area on the topmost part about the information regarding the path or where the user currently is in the system.
4.	The user can see and click on the close (x) button on the right topmost part of the frame.
5.	The user can click on the notification button that can be found in the header to notify if a certain item reaches below the stock level.
6.	The user can select on the combo box/drop down option on the rightmost part of the header to allow user to log-out of the system.
7.	The user can see the logo and the name of the company on the top left side part of the program

Feature ID:	Feat - 014
Feature Name:	IN-STOCK FORM
User Story:	
1.	The user must be able to click the buttons for In-stock Form.
2.	The user must be able to see the following buttons on the left side such as <i>Edit</i> , <i>View Activity</i> , and <i>Deduct</i> to manage every item in the inventory. The system will prompt some validation before making any changes.
3.	The user can also use the following operations in the toolbar such as filtering records, and adding an item.
4.	The user can see in the text area on the topmost part about the information regarding the path or where the user currently is in the system.
5.	The user can click on the tabs to perform different operations. If the user clicks on <i>Dashboard</i> tab, they will be redirected to the Dashboard Form . Similar with <i>Reports</i> , <i>Checking</i> , and <i>Restock</i> tab.



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6. The user can see the logo and the name of the company on the top left side part of the program
7. The user can select on the combo box/drop down option on the rightmost part of the header to allow user to log-out of the system.
8. The user can click on the notification button that can be found in the header to notify if a certain item reaches below the stock level.
9. The user can see and click on the close (x) button on the right topmost part of the frame.

Feature ID:	Feat - 015
Feature Name:	REPORTS FORM
User Story:	
1.	The user must be able to view the records of the reports by clicking the record the user wants to view.
2.	The User can use the following operations in the toolbar such as filtering records based on activity and item code for faster searching.
3.	The user can see the logo and the name of the company on the top left side part of the program
4.	The user can see and click on the close (x) button on the right topmost part of the frame.
5.	The user can see in the text area on the topmost part about the information regarding the path or where the user currently is in the system.
6.	The user can click on the tabs to perform different operations. If the user clicks on <i>Dashboard</i> tab, they will be redirected to the Dashboard Form . Similar with <i>In-Stock</i> , <i>Checking</i> , and <i>Restock</i> tab.
7.	The user can select on the combo box/drop down option on the rightmost part of the header to allow user to log-out of the system.
8.	The user can click on the notification button that can be found in the header to notify if a certain item reaches below the stock level.

Feature ID:	Feat – 016
Feature Name:	CHECKING FORM
User Story:	
1.	The user must be able to click the buttons and select date for Checking Tab.



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2. The user must be able to input in the fields for the column for On-Hand and Remarks on the form on the right side of the Checking Form.
3. The user can see in the text area on the topmost part about the information regarding the path or where the user currently is in the system.
4. The user can click on the tabs to perform different operations. If the user clicks on *Dashboard* tab, they will be redirected to the **Dashboard Form**. Similar with *Reports*, *In-Stock*, and *Restock* tab.
5. The user can see the logo and the name of the company on the top left side part of the program
6. The user can select on the combo box/drop down option on the rightmost part of the header to allow user to log-out of the system.
7. The user can click on the notification button that can be found in the header to notify if a certain item reaches below the stock level.
8. The user can see and click on the close (x) button on the right topmost part of the frame.

Feature ID:	Feat - 017
Feature Name:	RESTOCK FORM
User Story:	
1.	A user must be able to click the buttons and select date for Restocking Tab.
2.	A user must be able to input in the fields for the column for Restocked, Deduction and Remarks in the form that can be found in the right part of the Restocking Tab
3.	A user can also use the following operations in the toolbar like filtering records based on category (drink or snack).
4.	A user can see in the text area on the topmost part about the information regarding the path or where the user currently is in the system.
5.	The user can click on the tabs to perform different operations. If the user clicks on <i>Dashboard</i> tab, they will be redirected to the Dashboard Form . Similar with <i>Reports</i> , <i>In-Stock</i> , and <i>Checking</i> tab.
6.	The user can see the logo and the name of the company on the top left side part of the program
7.	The user can select on the combo box/drop down option on the rightmost part of the header to allow user to log-out of the system.



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8. The user can click on the notification button that can be found in the header to notify if a certain item reaches below the stock level.
9. The user can see and click on the close (x) button on the right topmost part of the frame.

Feature ID:	Feat – 018
Feature Name:	ADD NEW ITEM FORM
User Story:	
1.	A user must be able to input regarding on the properties of the item that the user wishes to add in the inventory system.
2.	The user must be able to click on the confirmation button to save the changes made.
3.	The user can see and click on the close (x) button on the right topmost part of the frame.

Feature ID:	Feat – 019
Feature Name:	EDIT FORM
User Story:	
1.	A user must be able to input regarding on the changes of the properties of the item that the user wishes to edit in the inventory system.
2.	The user must be able to click on the confirmation button to save the changes made.
3.	The user can see and click on the close (x) button on the right topmost part of the frame.

Feature ID:	Feat – 020
Feature Name:	NOTIFICATION FORMS
User Story:	
1.	The user can click the close (x) button on the right after reading the prompted message.



3.4. APPLICATION SCREENSHOTS

Form Name:	ORDERING SYSTEM START FORM
Description:	This is the first form that will be encountered upon running the system. The start form contains a Log in button which the user can click to choose an access mode, as well as an exit button which a user can click if he/she wants to exit the system.
Feature ID:	Feat-001



Figure 1.0. ORDERING SYSTEM START FORM

Form Name:	ACCESS MODE FORM
Description:	The access mode form allows users to choose a particular access mode throughout the whole system. Logging in as the Cashier will only grant users access to the ordering system. While logging in as the Manager will avail both the ordering and inventory system for use.



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Feature ID: Feat-002



Figure 2.0. ACCESS MODE FORM

Form Name: LOGIN FORM

Description: The login form allow the user to gain access to the ordering system by entering a valid ID number, a username (which can vary as long as the ID and the password match), and the password. It is a security measure in the system which is used to authenticate the user's rights in gaining access to the system depending on the mode that was chosen in the access mode form. There is also a Forget Password option at the bottom of the form which the user can use in the case that he/she forgets the password allocated for his/her respective account.

Feature ID: Feat-003

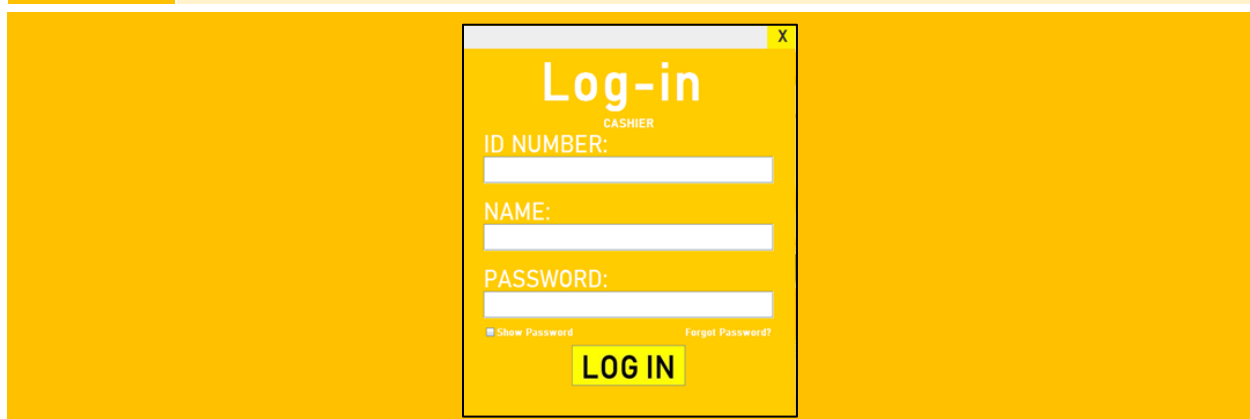


Figure3.0. LOGIN FORM



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Form Name:	IDENTITY VERIFICATION FORM
Description:	The Identity Verification form provides security questions to be answered by the user. This is for the purpose of verification before being able to change the password for the account. The user is required to (correctly) answer only one of the questions from the options given in the combo box.
Feature ID:	Feat-004

Figure 4.0. IDENTITY VERIFICATION FORM

Form Name:	CHANGE PASSWORD FORM
Description:	If the account is successfully verified, the user will proceed to the change password form wherein he/she can enter and confirm a new password for the account. This new password will be updated in the database and the user can immediately use it for login in the system under the access mode that was chosen earlier.
Feature ID:	Feat-005



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Figure 5.0. CHANGE PASSWORD FORM

Form Name:	MAIN MENU FORM
Description:	The main menu is the heart of the Ordering System. It displays the available products of Suntea PH with their respective categories indicated by the legend. The form provides the payment data of the customer based on his/her order, as well as the discount availed if applicable. There is a table allocated for listing a particular customer's order(s), which much be refreshed upon every order. The assigned user can delete from the list if the customer cancels a particular order. If under the Manager access mode, the Go to Inventory button will be enabled for the user to use the Inventory section.
Feature ID:	Feat-006



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Figure 6.0. MAIN MENU FORM

Form Name: DRINK ORDERING FORMS

Description: This form provides detailed options for ordering a particular drink chosen in the main menu form. The category and the product name of the drink is displayed in the header, and the user can choose one of the available price(s) depending on the size of the drink. Additionally, the user can also add available riders to the drink based on the customer's preference. The quantity of the ordered drink can also be incremented, which will reflect on the amount displayed on the form which is also with accordance to the riders and the size chosen. If the customer has any requests or demand with the drink, the user can note it down in the Special Instructions text field.

Feature ID: Feat-007



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The figure displays four drink ordering forms for SunTea, arranged in a 2x2 grid. Each form is for a different drink category and includes the following elements:

- Header:** Drink name and category (e.g., "Infusions | Blueberry", "Premium | Milky Brown Boba", "Maxi Tea | Nutella Addiction", "Flexi Tea | Boba").
- ADD RIDER?:** A list of optional toppings with their prices and quantity controls (minus, zero, plus buttons).
 - Boba: P15
 - Nata: P15
 - Popping Boba: P15
 - Fruit Jelly: P15
 - Foam: P25
- PRICE & SIZE:** Two price/size options (e.g., "P79 | 350 ML", "P109 | 350 ML", "P89 | 500 ML", "P99 | 700 ML").
- QUANTITY:** A quantity selector with minus, zero, and plus buttons.
- AMOUNT:** A text input field showing the calculated amount (e.g., "0.0").
- SPECIAL INSTRUCTIONS:** A text input field for additional requests.
- ORDER THIS DRINK:** A button to place the order.

Figure 7.0. DRINK ORDERING FORMS

Form Name: SNACK ORDERING FORMS

Description: Similar to the drink ordering form, this form also gives detailed options for ordering a particular snack chosen in the main menu form. The category and name of the snack is also displayed in the header, and the user can choose one of the available price(s) depending on the size of the snack. The quantity of the snack can also be changed and will reflect on the amount displayed with accordance to the size/price chosen. If the customer has any requests with the snack, the



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user can also note it down in the Special Instructions text field.

Feature ID: Feat-008

Figure 8.0. SNACK ORDERING FORM

Form Name: CUSTOMER PAYMENT FORM

Description: In the Customer Payment form, the user has to input both the customer's name and the cash received for the payment of the order(s). The customer name is typewritten while the cash received is entered by pressing the numerical buttons. If the user inputs the wrong amount, he/she can clear the cash received area and re-enter the correct value. Additionally, the customer payment form will not accept the cash value if it is less than the payment amount indicated in the main menu form.

Feature ID: Feat-009



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Figure 9.0. CUSTOMER PAYMENT FORM

Form Name: RECEIPT FORM

Description: The Receipt form summarizes the transaction by generating a receipt based on the customer's order(s) and payment data. Other details such as the date, the customer name, as well as the cashier name is also included. Additionally, the form also provides the option of printing the receipt in the case that the customer requests a physical copy of the generated receipt. The Next Order button will reset the main menu form and the user can proceed with a new customer.


Feature ID: Feat-010

Figure 10.0. RECEIPT FORM



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Form Name:	CONFIRMATION FORMS
Description:	The confirmation forms ensure if the user is certain in performing a particular action in the system. This is to avoid cases wherein the user accidentally clicks a button and the action is immediately performed without a final confirmation. The confirmation forms consist of only two buttons: the Yes button which will affirm the user's certainty in the action, and the No button which will close the confirmation form.
Feature ID:	Feat-011



Suntea PH
Sta. Mesa, Manila Branch

**ARE YOU SURE YOU WANT
TO EXIT THE SYSTEM?**

Yes
No



Suntea PH
Sta. Mesa, Manila Branch

**ARE YOU SURE YOU WANT
TO LOGOUT?**

Yes
No

Figure 11.0. CONFIRMATION FORMS

Form Name:	MESSAGE FORMS
Description:	The message forms are used to display a piece of information to the user with regards to certain actions in the system. These forms mostly appear for the purpose of validation or restriction in the system. Unlike in the confirmation forms, the message forms only have one button which will result in its disposal. The password changed form is the only exception since the user will instead be redirected to the access mode form if they press the OK button.
Feature ID:	Feat-012



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 Suntea PH Sta. Mesa, Manila Branch THE ACCOUNT IS INVALID! <input type="button" value="OK"/>	 Suntea PH Sta. Mesa, Manila Branch ALL FIELDS REQUIRE AN INPUT! <input type="button" value="OK"/>	 Suntea PH Sta. Mesa, Manila Branch INSUFFICIENT AMOUNT! <input type="button" value="OK"/>	
 Suntea PH Sta. Mesa, Manila Branch PASSWORD CHANGED! <input type="button" value="OK"/>	 Suntea PH Sta. Mesa, Manila Branch INCORRECT! THEY ARE NOT MATCHED! <input type="button" value="OK"/>	 Suntea PH Sta. Mesa, Manila Branch INCORRECT ANSWER! <input type="button" value="OK"/>	
 Suntea PH Sta. Mesa, Manila Branch CHOOSE THE SIZE OF THE DRINK FIRST! <input type="button" value="OK"/>	 Suntea PH Sta. Mesa, Manila Branch CHOOSE THE SIZE OF THE SNACK FIRST! <input type="button" value="OK"/>	 Suntea PH Sta. Mesa, Manila Branch PLEASE SELECT A RECORD TO DELETE FIRST! <input type="button" value="OK"/>	
 Suntea PH Sta. Mesa, Manila Branch RECORD DELETED! <input type="button" value="OK"/>			 Suntea PH Sta. Mesa, Manila Branch THERE IS NO RECORD TO DELETE. <input type="button" value="OK"/>

Figure 12.0. MESSAGE FORMS

Form Name: DASHBOARD FORM

Description: The tab where the user can see the recommended actions that the administrator must manage. Since the user is in the main page, he can utilize common functions such as clicking on the tabs, seeing the path of where the user currently is, check on the notifications, and click the combo box on the top right to log out of the system, etc.



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Feature ID: Feat-013



Figure 13.0. DASHBOARD FORM

Form Name: IN-STOCK FORM

Description: The tab where the user can do basic management regarding to each item in the inventory. Such management includes viewing the stock card of a certain item or edit on some properties of an item.

In addition, since the user is in the main page, he can utilize common functions such as clicking on the tabs, seeing the path of where the user currently is, check on the notifications, and click the combo box on the top right to log out of the system, etc.

Feature ID: Feat-014



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Suntea Ph
WELCOME TO THE INVENTORY SYSTEM
Juan Dela Cruz

DASHBOARD
IN-STOCK
REPORTS
RESTOCK
CHECKING

Filter By: Category All
Add
Refresh

Item Code	Item Name	Quantity	Status	Category	Date Updated
BOTT350	Bottle 350ml	0	Out of Stock	Drinks	2020-05-06
CND	CHIC n DIP	115	In Stock	Snacks	2020-04-29
CUPS350	Cups 350 ml	100	In Stock	Drinks	2020-05-06
CUPS500	Cups 500 ml	105	In Stock	Drinks	2020-05-03
CUPS700	Cups 700 ml	88	In Stock	Drinks	2020-05-06
FRFRIEND	Fries (Friend)	100	In Stock	Snacks	2020-04-27
FRSOL	Fries (Solo)	100	In Stock	Snacks	2020-05-06
WOCOSOL	WING o Clock (Solo)	102	In Stock	Snacks	2020-05-05
WOCOSQD	WING o Clock (Squad)	94	In Stock	Snacks	2020-05-05
WOC	Wings	150	In Stock	Snacks	2020-05-05
WOCs	WINGS BBQ	124	In Stock	Snacks	2020-05-05

Figure 14.0. IN-STOCK FORM

Form Name: REPORTS FORM

Description: The tab where the user can see and view the summary of activities and changes made.
Since the user is in the main page, he can utilize common functions such as clicking on the tabs, seeing the path of where the user currently is, check on the notifications, and click the combo box on the top right to log out of the system, etc.

Feature ID: Feat-015



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Item Code	Item Name	Quantity	Activity	Date	Remarks
FRSOL	Fries (Solo)	6	Restock	2020-05-06	None
FRSOL	Fries (Solo)	1	Deducted	2020-05-06	Short
BOTT350	Bottle 350ml	1	Deducted	2020-05-06	Short
CUP3350	Cups 350 ml	89	Restock	2020-05-06	None
CUP3700	Cups 700 ml	30	Restock	2020-05-06	None
CUP3350	Cups 350 ml	89	Deducted	2020-05-06	Short
CUP3350	Cups 350 ml	100	Restock	2020-05-06	None
CUP3700	Cups 700 ml	1	Deducted	2020-05-06	Short
WOC30D	WING o Clock (Squad)	10	Deducted	2020-05-06	Short
BOTT350	Bottle 350ml	3	Deducted	2020-05-06	Short
CUP3700	Cups 700 ml	50	Restock	2020-05-05	None
CUP3350	Cups 350 ml	51	Restock	2020-05-05	None
BOTT350	Bottle 350ml	9	Restock	2020-05-05	None
BOTT350	Bottle 350ml	1	Restock	2020-05-05	None
BOTT350	Bottle 350ml	1	Restock	2020-05-05	None
WOC	Wings	20	Restock	2020-05-05	None
WOC	Wings	20	Restock	2020-05-05	None
FRSOL	Fries (Solo)	5	Deducted	2020-05-05	Short
WOC30L	WING o Clock (Solo)	100	Restock	2020-05-05	None
WOC30L	WING o Clock (Solo)	96	Deducted	2020-05-05	Short
WOC30D	WING o Clock (Squad)	100	Restock	2020-05-05	None
WOC30	WINGS BBQ	1	Deducted	2020-05-05	Short
WOC30D	WING o Clock (Squad)	109	Deducted	2020-05-05	Short
CUP3350	Cups 350 ml	71	Deducted	2020-05-05	Short
CUP3700	Cups 700 ml	100	Deducted	2020-05-05	Short
BOTT350	Bottle 350ml	1	Deducted	2020-05-05	Short
CND	CHIC n DIP	1	Deducted	2020-05-05	Short
CND	CHIC n DIP	1	Deducted	2020-05-05	Short
BOTT350	Bottle 350ml	2	Deducted	2020-05-05	Short
WOC30	WINGS BBQ	5	Deducted	2020-05-05	Short
BOTT350	Bottle 350ml	1	Deducted	2020-05-05	Short

Figure 15.0. REPORTS FORM

Form Name: RESTOCK FORM

Description: The tab where the user can input the quantity that was deducted or restocked.

The user will be encoding their inputs on the right side before it will completely be recorded.

Since the user is in the main page, he can utilize common functions such as clicking on the tabs, seeing the path of where the user currently is, check on the notifications, and click the combo box on the top right to log out of the system, etc.

Feature ID: Feat-016



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RESTOCK

Date: 2020-05-06

Item Code	Item Name	Category	Balance	Date Updated
BOTT350	Bottle 350ml	Drinks		0/2020-05-06
CND	CHIC n DIP	Snacks		115/2020-04-29
CUPS350	Cups 350 ml	Drinks		100/2020-05-06
CUPS500	Cups 500 ml	Drinks		105/2020-05-03
CUPS700	Cups 700 ml	Drinks		88/2020-05-06
FRFRIEND	Fries (Friend)	Snacks		100/2020-04-27
FRSOL	Fries (Solo)	Snacks		100/2020-05-06
WOC	Wings	Snacks		150/2020-05-05
WOCB	WINGS BBQ	Snacks		124/2020-05-05
WOCBOL	WING a Clock (Solo)	Snacks		102/2020-05-05
WOCBOD	WING a Clock (Squad)	Snacks		94/2020-05-05

Reference Code

ITEM CODE

ITEM NAME

In (QTY):

Restock:

Bal (QTY):

Remarks: Restock

Confirm

Figure 16.0. RESTOCK FORM

Form Name: CHECKING FORM

Description: The tab where the user can input the remaining quantity at a certain period.

The user will be encoding their inputs on the right side before it will completely be recorded.

Since the user is in the main page, he can utilize common functions such as clicking on the tabs, seeing the path of where the user currently is, check on the notifications, and click the combo box on the top right to log out of the system, etc.

Feature ID: Feat-017



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Suntea Ph WELCOME TO THE INVENTORY SYSTEM Juan Dela Cruz

DASHBOARD **IN-STOCK** **REPORTS** **RESTOCK** **CHECKING**

Refresh

CHECKING FORM

Item Code	Item Name	IN	OUT	BAL
BOTT350	Bottle 350ml	100	0	100
CND	Chic n Dip	100	0	100
CUPS350	Cups 350 ml	100	0	100
CUPS500	Cups 500 ml	100	0	100
CUPS700	Cups 700 ml	100	2	98
FRFRIEND	Fries (Friends)	100	0	100
FRSOL	Fries (Solo)	100	0	100
WOCOSOL	WING o Clock (Solo)	100	0	100
WOCOSQD	WING o Clock (Squad)	102	2	100
PB	Plastic Bags for Drinks	100	0	100

ITEM CODE
ITEM NAME

Balance:

On - Hand:

Short:

Remarks:

Confirm

Figure 17.0. CHECKING FORM

Form Name: ADD NEW ITEM FORM

Description: A form that will pop up and ask inputs from the user regarding on some properties that are necessary before a new item can be added, displayed, and managed in the inventory system.

Feature ID: Feat-018



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Add New Item X

ITEM CODE:

ITEM NAME:

QUANTITY:

CATEGORY: ACTIVE STATUS:
Drinks In Stock

STOCK LEVEL:

ADD ITEM

Figure 18.0. ADD NEW ITEM FORM

Form Name:	EDIT FORM
Description:	The form that will pop up whenever the user wants to change the properties of an item specifically on its item code, item name, category, and active state.
Feature ID:	Feat-019

Bottle 350ml X

BOTT350

ITEM CODE:
BOTT350

ITEM NAME:
Bottle 350ml

CATEGORY:
Drinks

ITEM STATUS:
Out of Stock

CONFIRM EDIT

Figure 19.0. EDIT FORM



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Form Name:	NOTIFICATION FORMS
Description:	The pop up that will prompt the user in regarding the changes that was made by the user.
Feature ID:	Feat-020

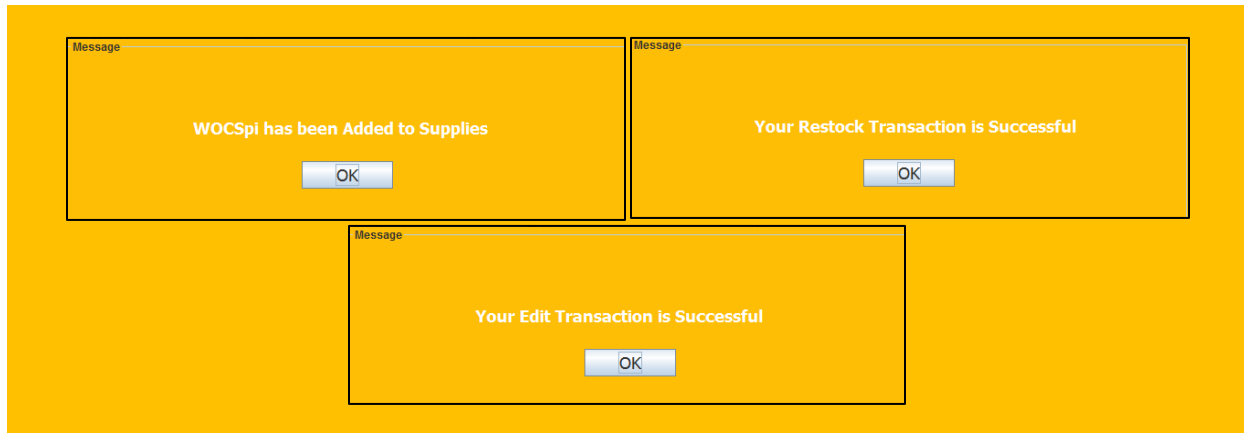


Figure 20.0. NOTIFICATION FORMS