

**SA39-TEAM 8**

**LOAD-CASE STUDY**

**GET FRESH FOOD**

-by

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## APPENDIX

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# **REQUIREMENTS SPECIFICATION**

## 1.BACKGROUND INFORMATION :

- ❖ Get Fresh food is a supermarket which sells large variety of products like fresh foods, detergents, pots and pans.
- ❖ Currently there are some discrepancies in sales and inventory record and labelling of prices.
- ❖ Labelling of prices problem, will be solved by electronic display of prices in the product shelves.
- ❖ Sales and inventory records will be automatically updated in the database when sales bill has been saved.

## 2. SCOPE :

### **Within Scope:**

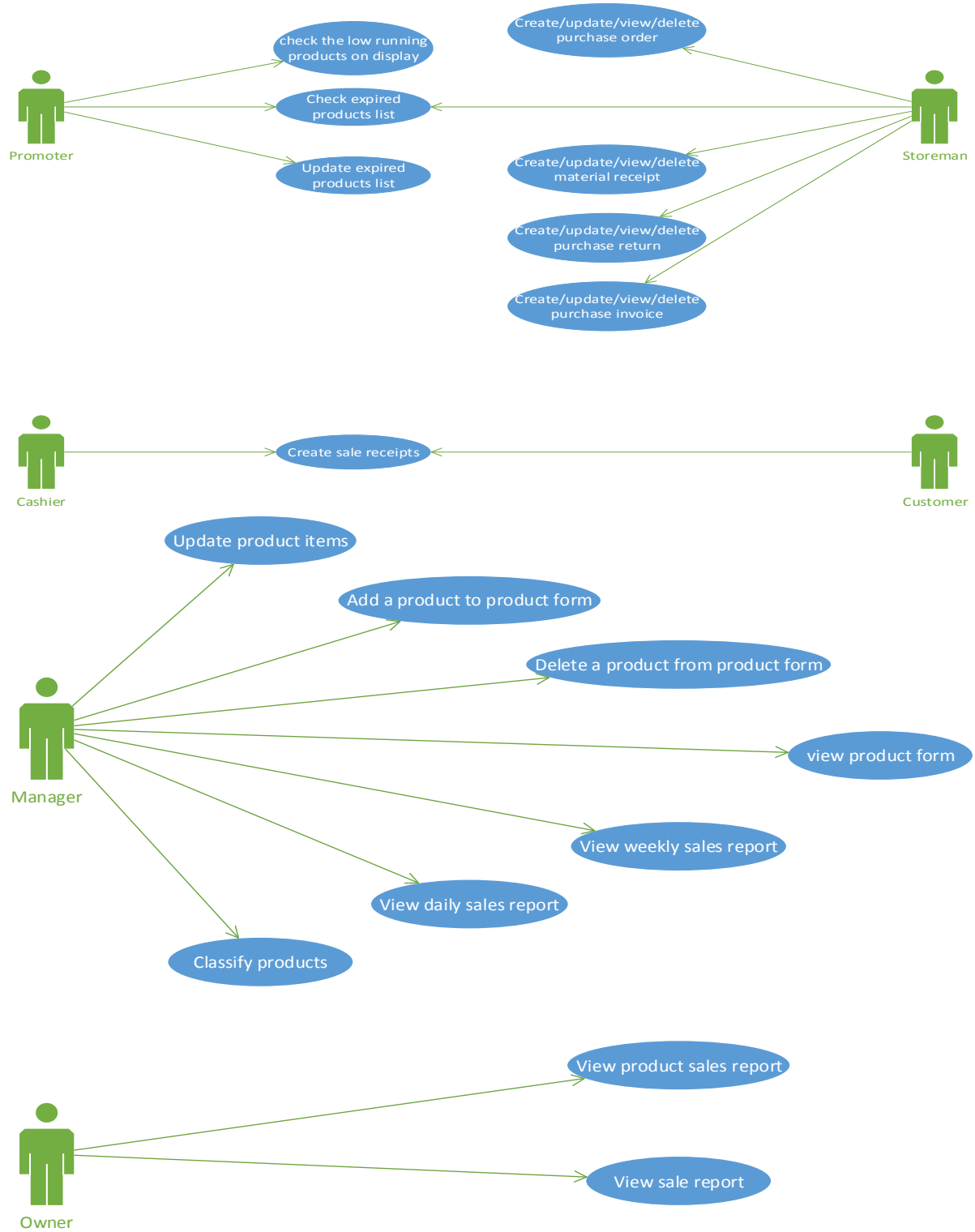
- Label price in product shelf
- Implement scanner for entering the price of the purchased products
- Update inventory goods in the DB
- Classification of goods
- Crud product form
- Create purchase order of goods to suppliers

Maintain receipts

### **Out Of Scope:**

- Identifying damaged goods
- Display goods on the shelves
- Returning expired and damaged to the suppliers

### 3. SYSTEM USE CASE DIAGRAM (FULL AUTOMATION) :



## 4. FUNCTIONAL REQUIREMENT :

### 4.1. HIGH LEVEL :

#### 4.1.1. Actor List and Actor Description

##### Actor's List:

Customer  
Manager  
Store man  
Owner  
Cashier  
Promoter

##### Actor Description:

###### ➤ Customer:

The person who buys the goods from GetFreshFoodsupermarket .

###### ➤ Manager:

The person who decides prices of the product based on the input given by the owner and updates the product form and issues it to the internal workers of the business.

###### ➤ Promoter:

The person who check the availability of the products in the go down from the system and display in the product shelves.  
Update details of expired goods.

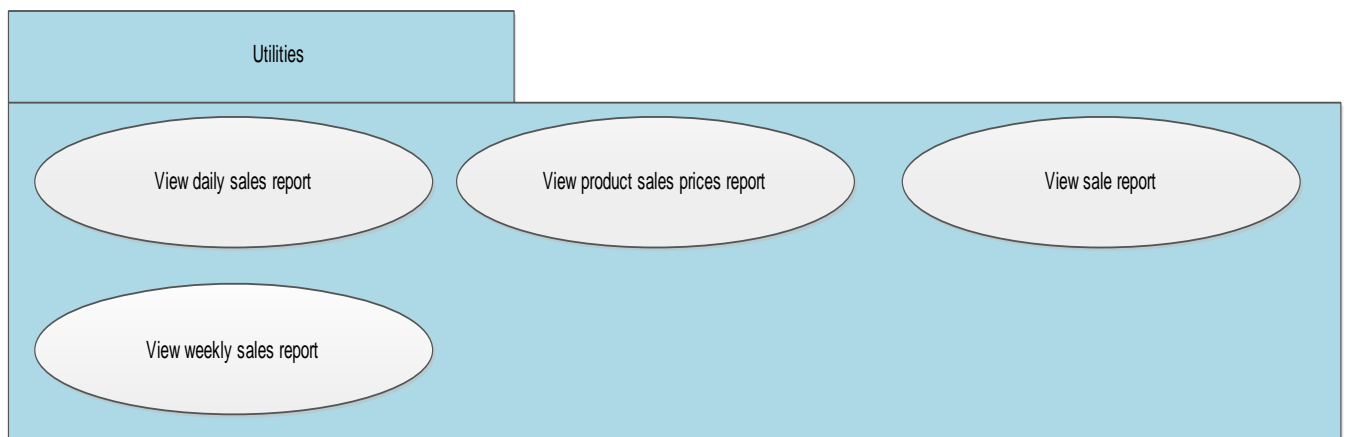
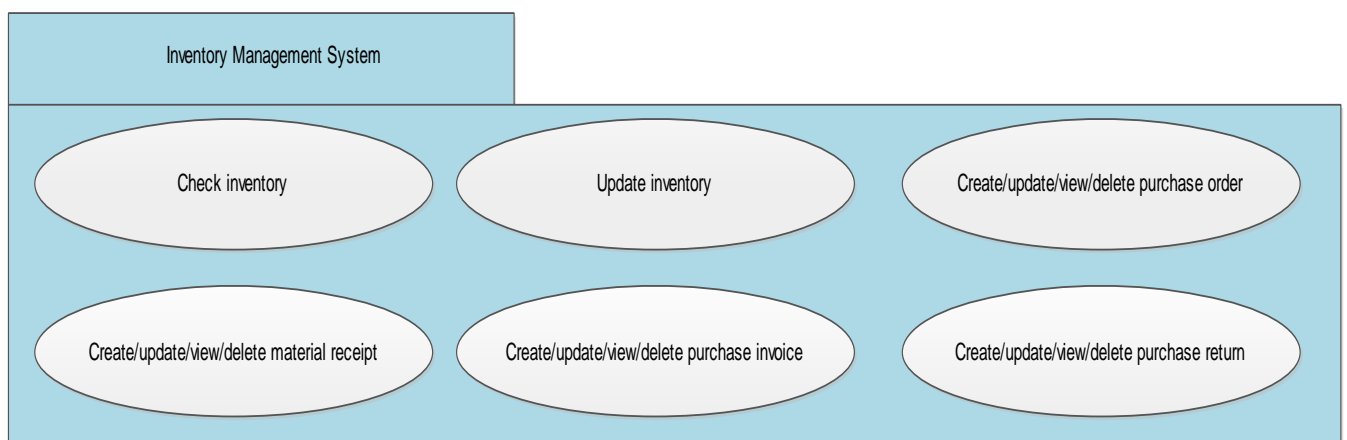
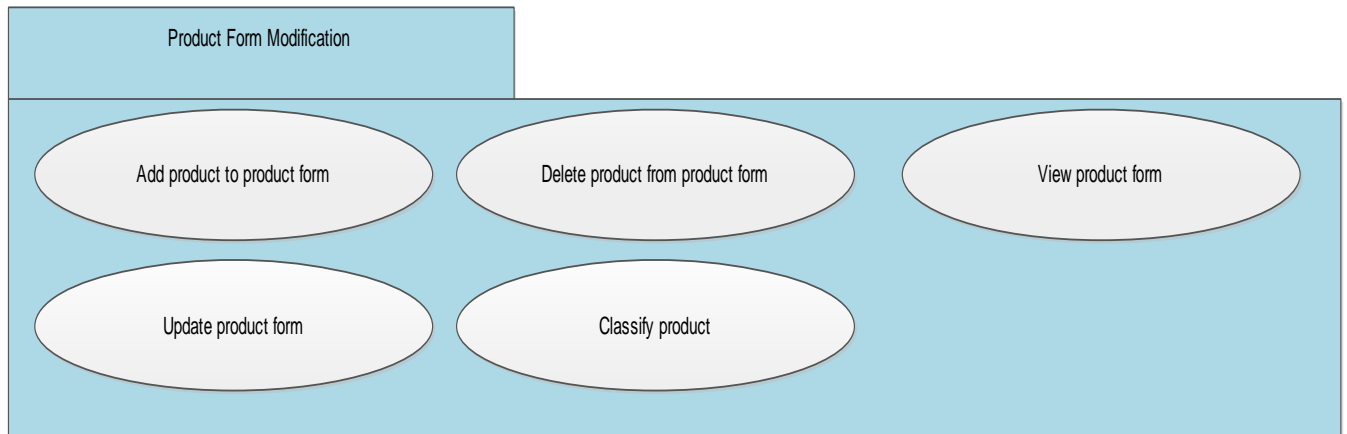
###### ➤ Cashier:

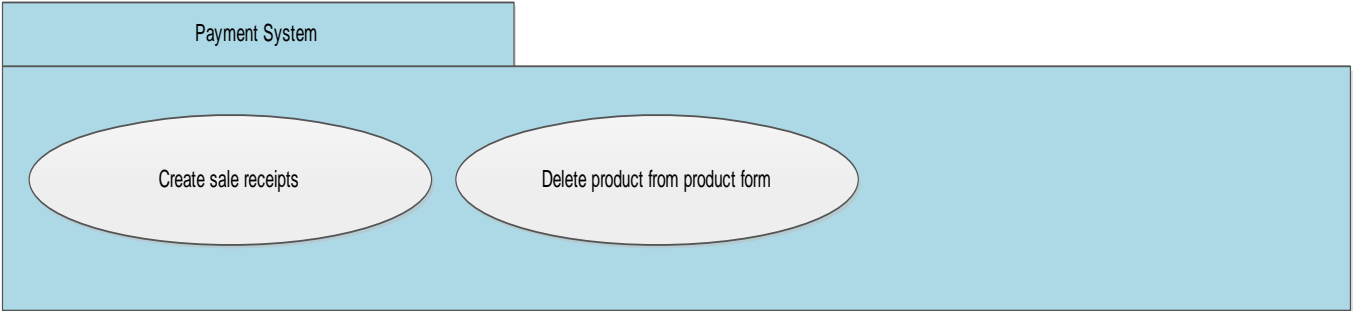
The person who updates the quantity of goods sold and cash received per customer in the system. Maintaining customer records in the system.

- Store man:Update availability of the products from the go down in the system. Update expired products list.
- Owner :The person who views price details and sales details and view sales report.
- Cash register:  
The machine which receives input from the system and prints the list of items sold and total amount payable.



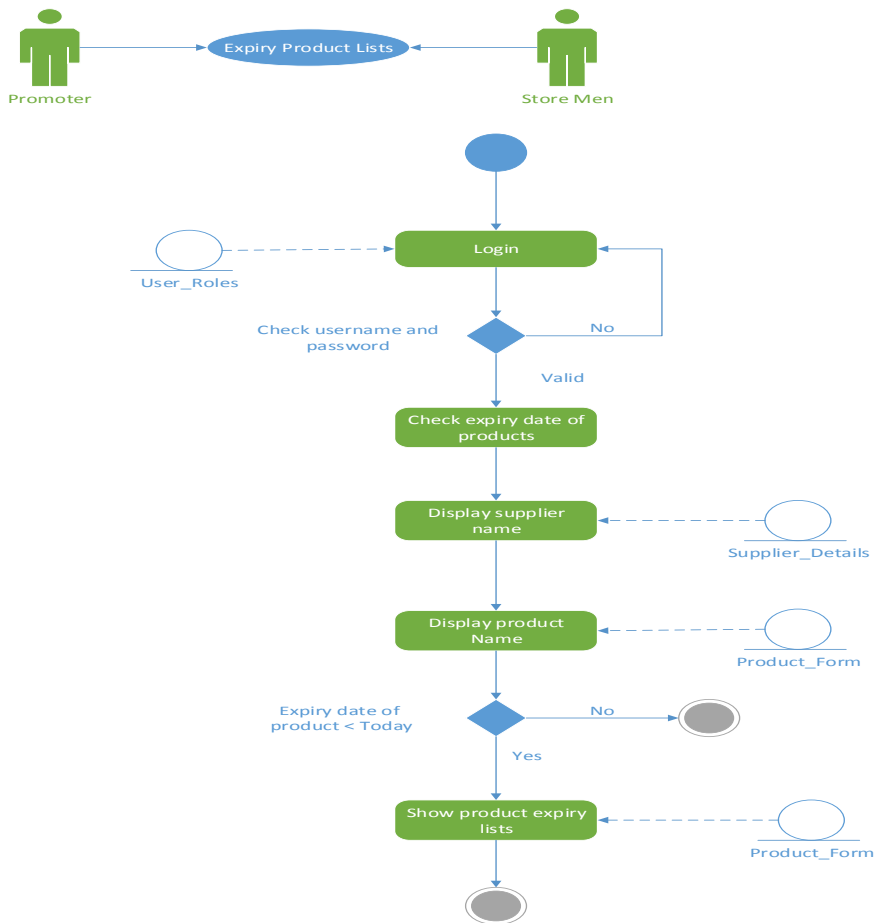
#### 4.1.2 PACKAGE USE CASES :



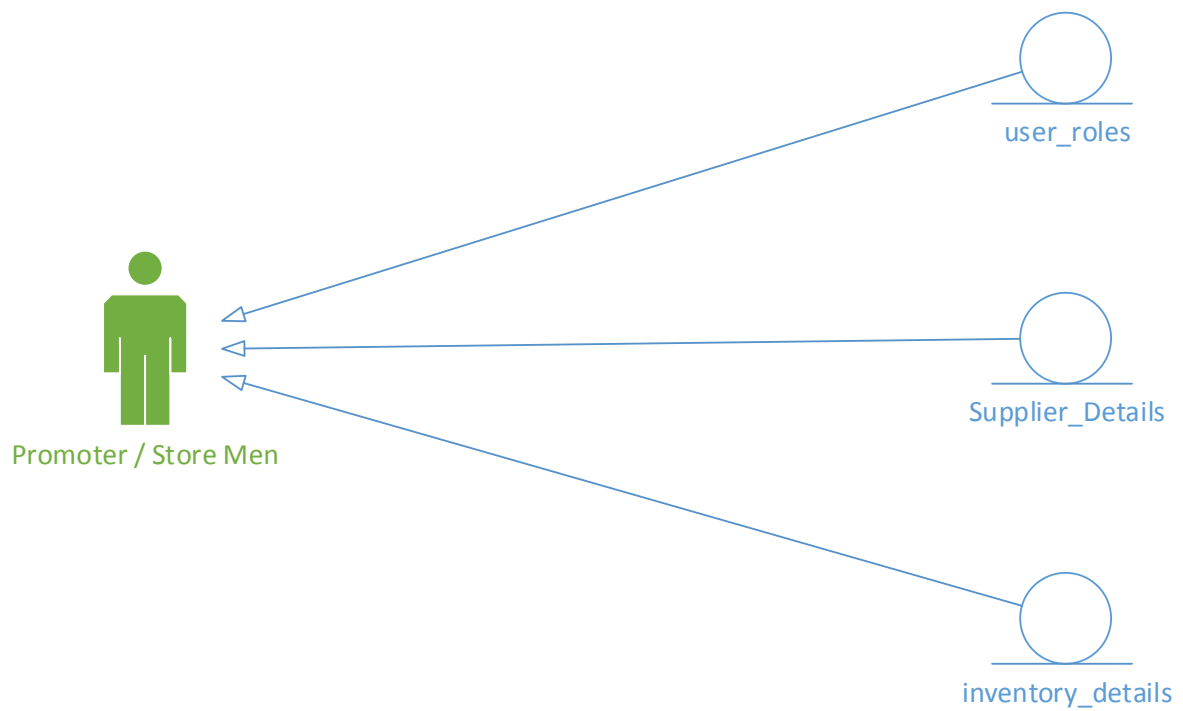


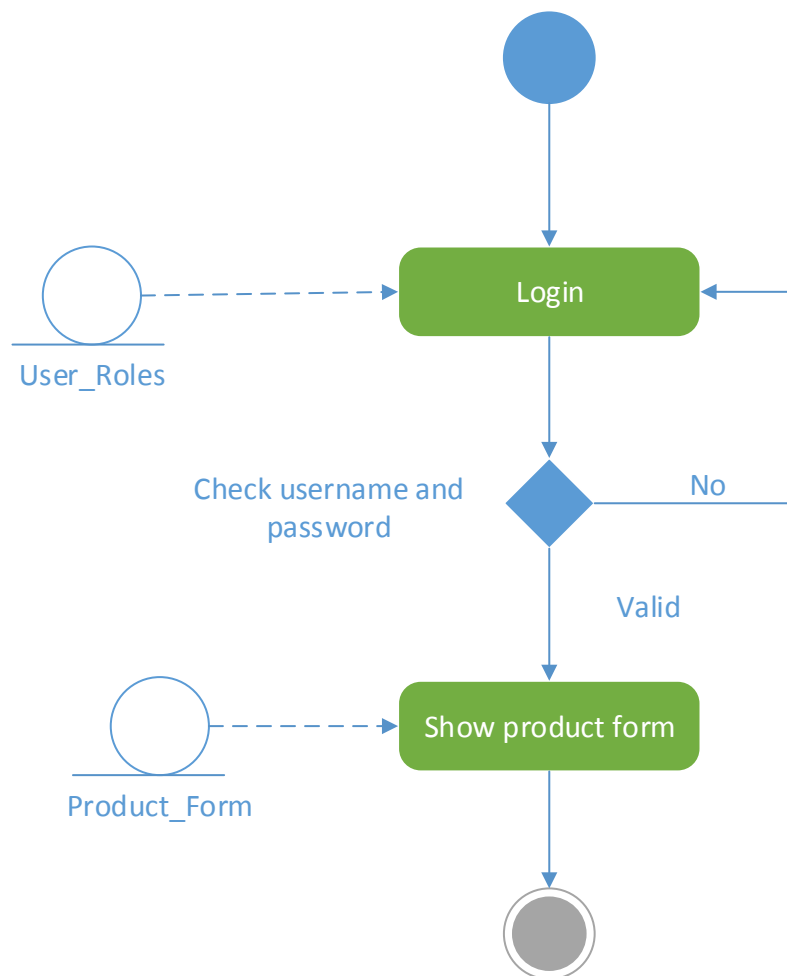
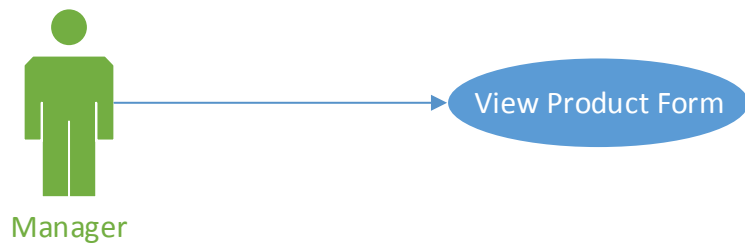
## 4.2. LOW LEVEL :

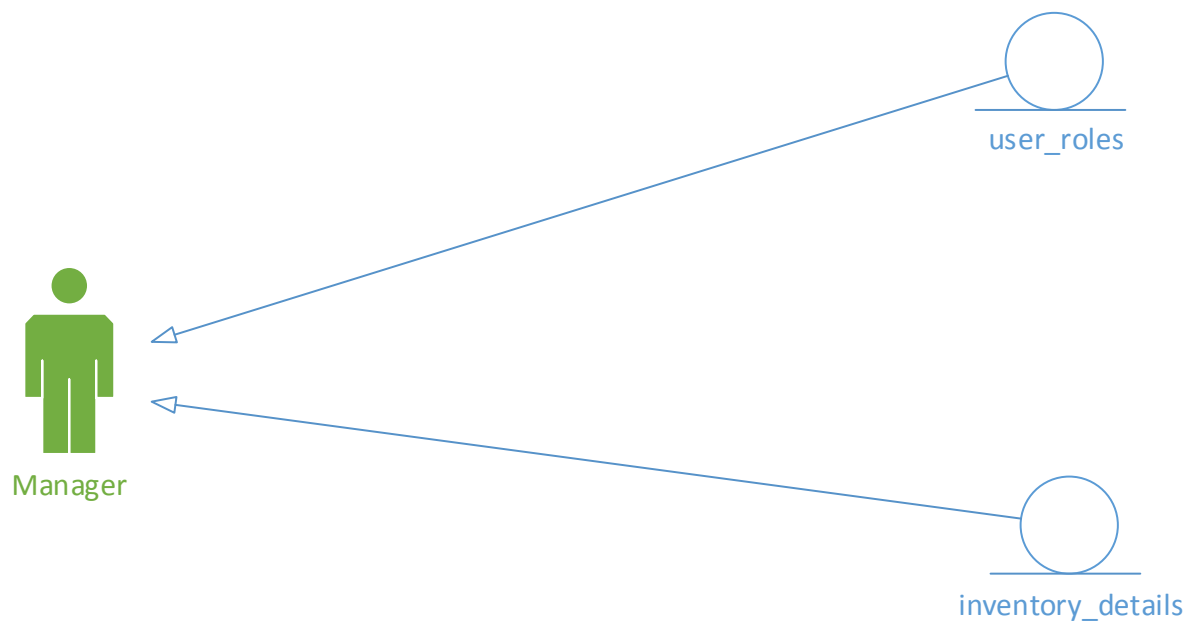
### 4.2.1. ACTIVITY AND CLASS DIAGRAM :



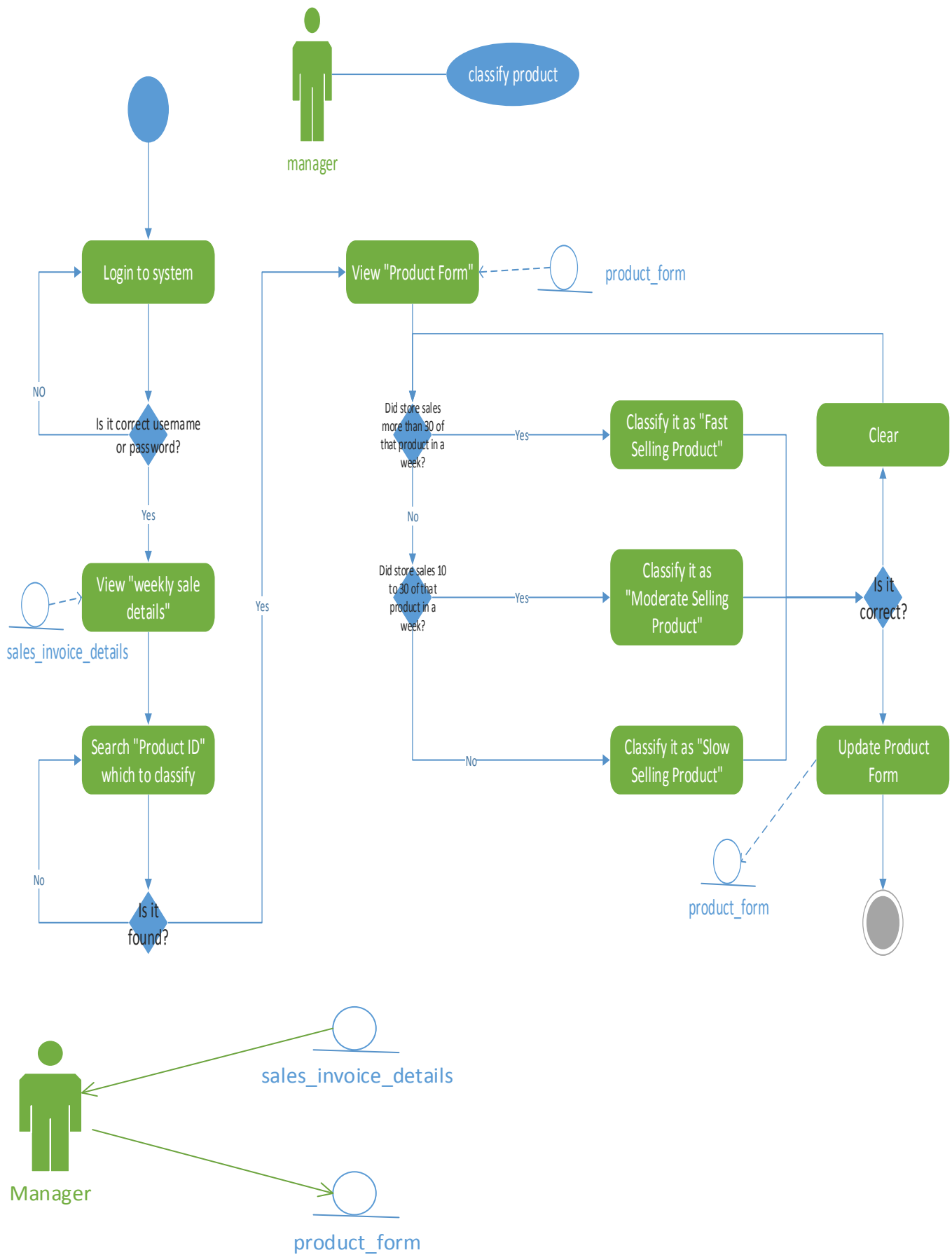
Expiry Product Lists

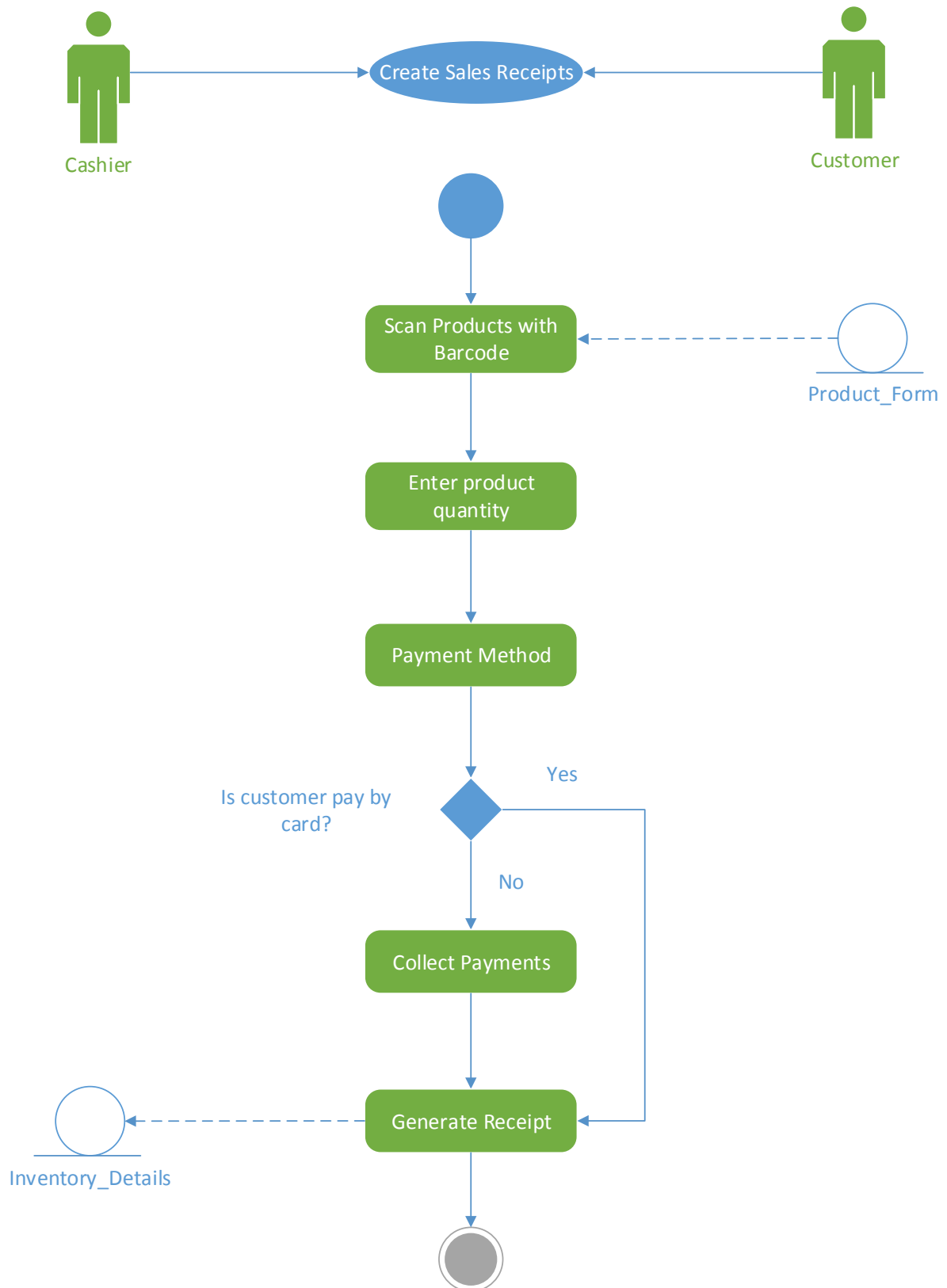


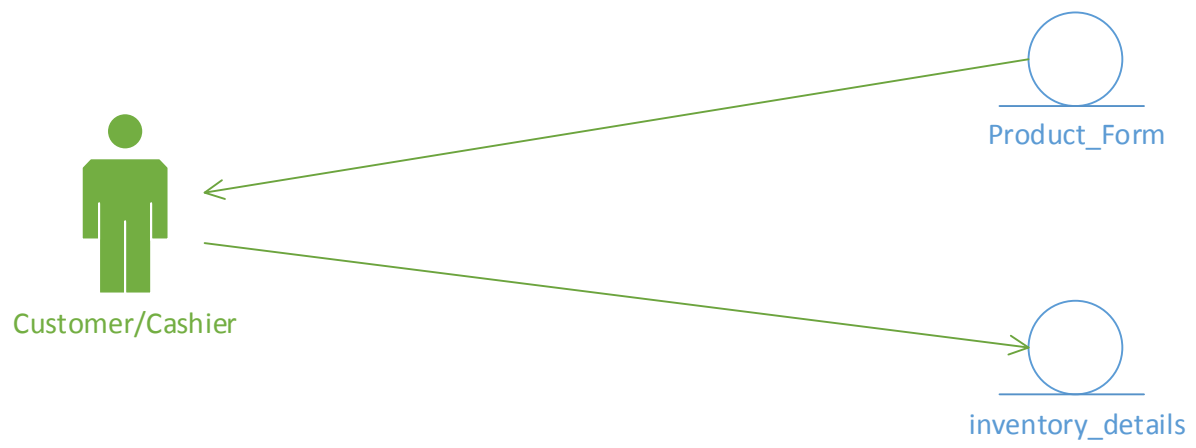




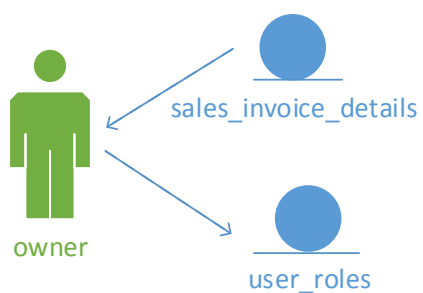
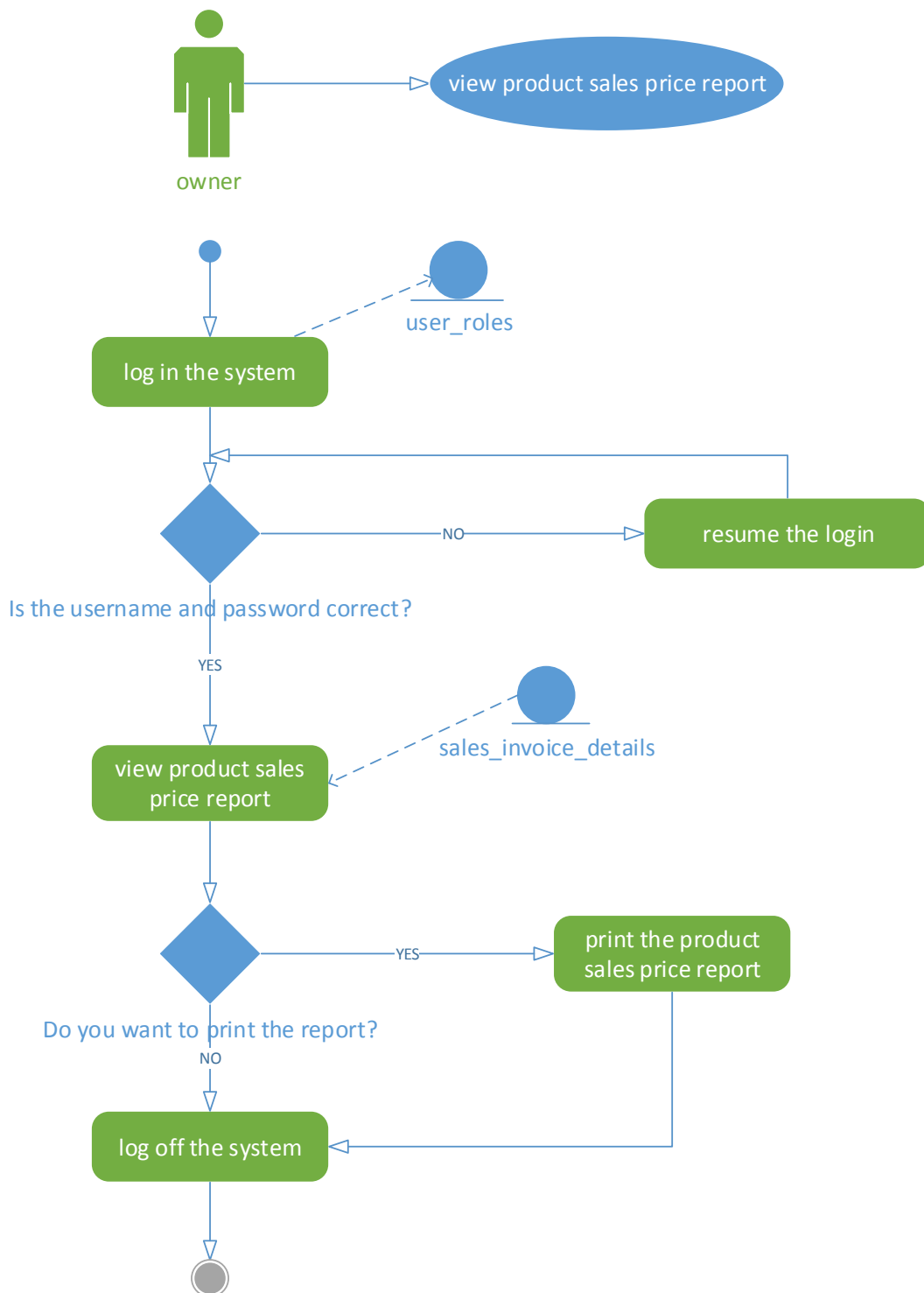
## Classify Product

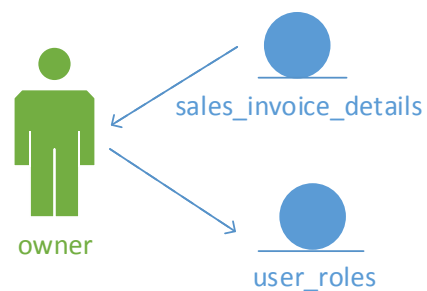
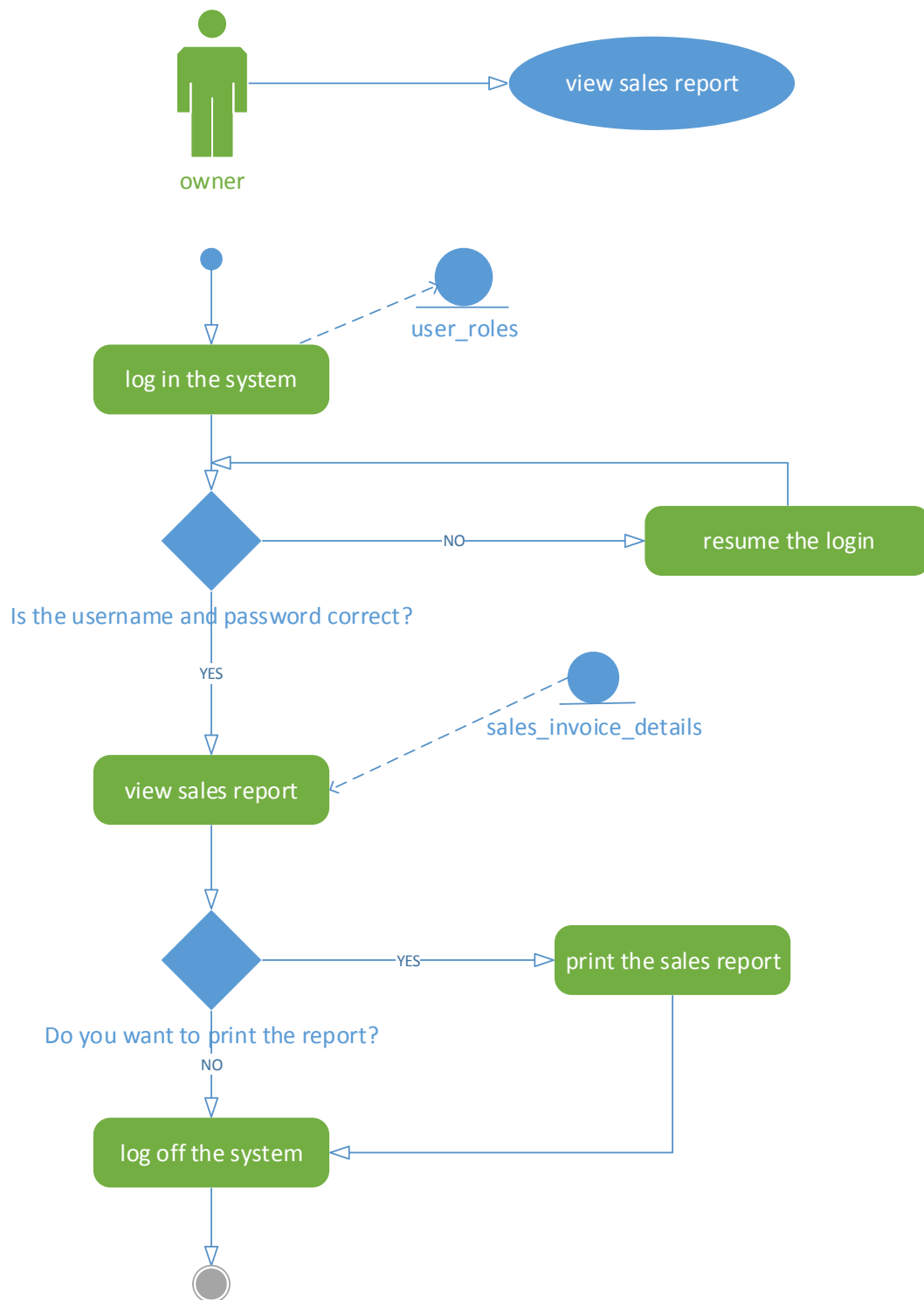


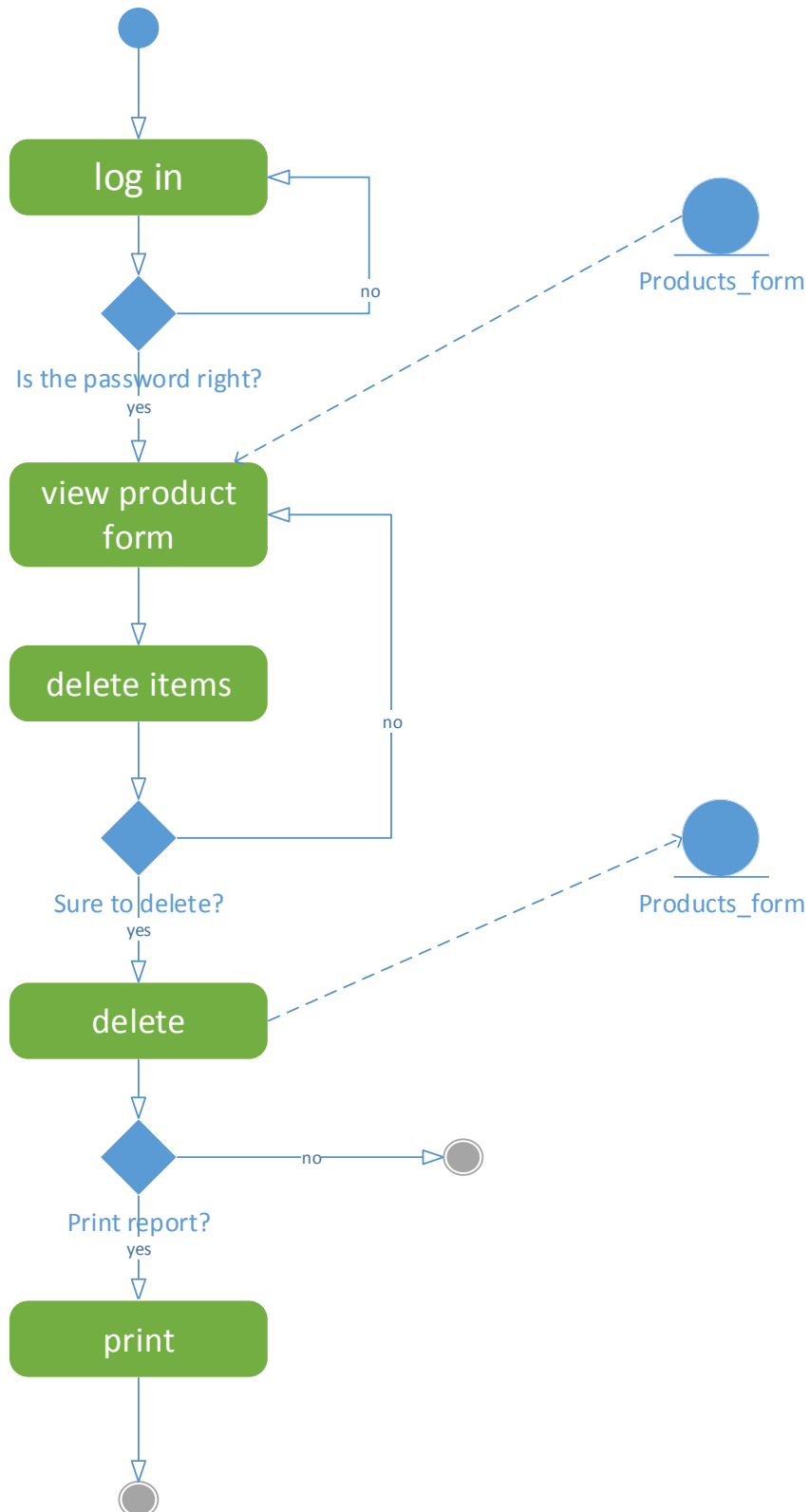
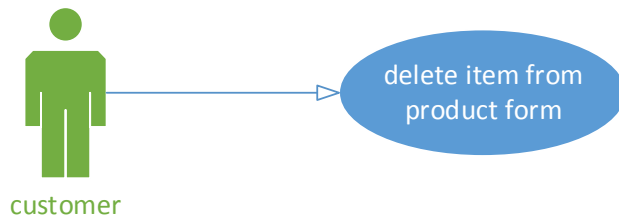


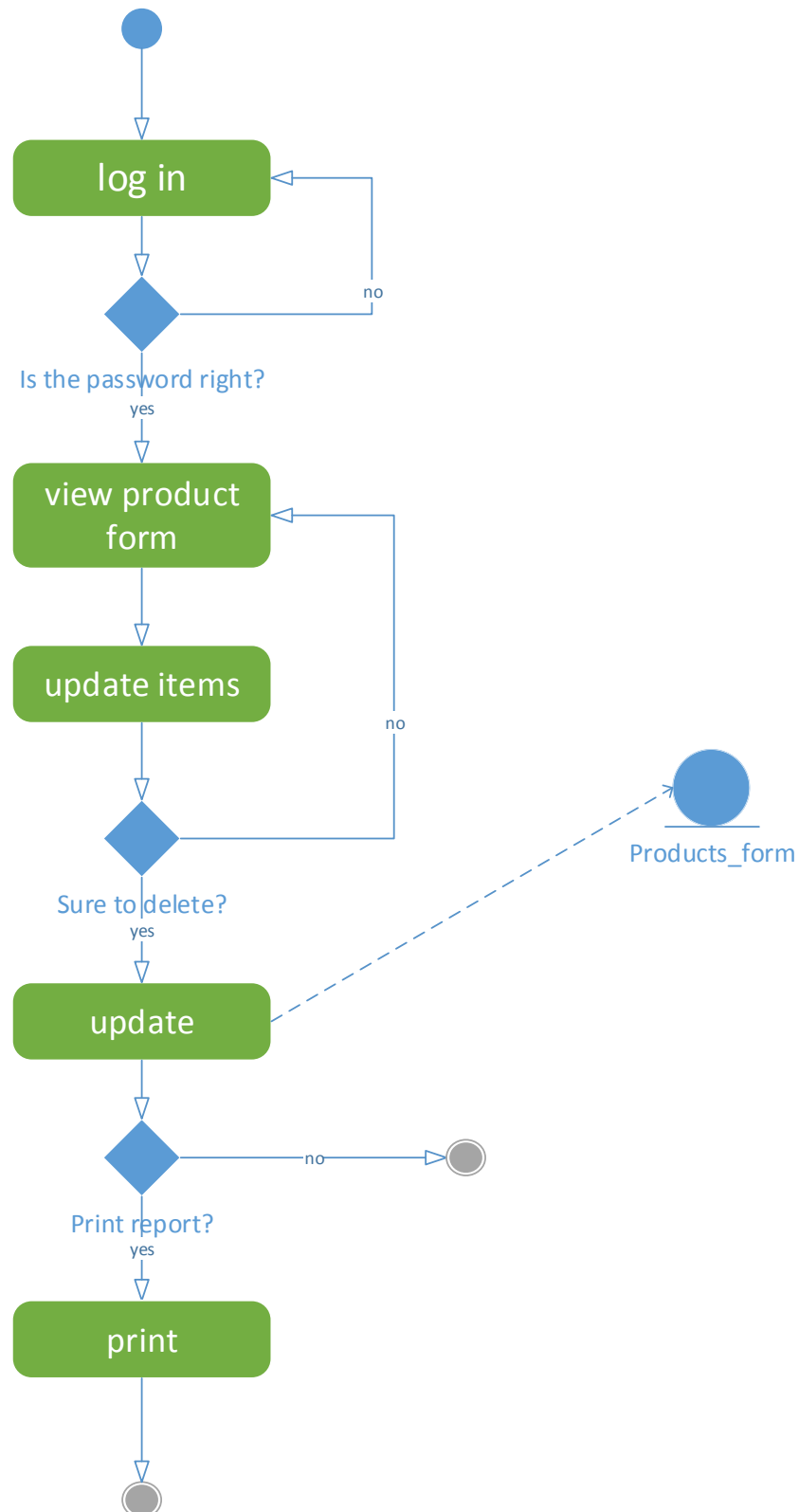
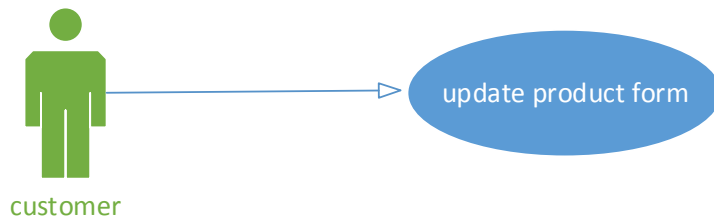


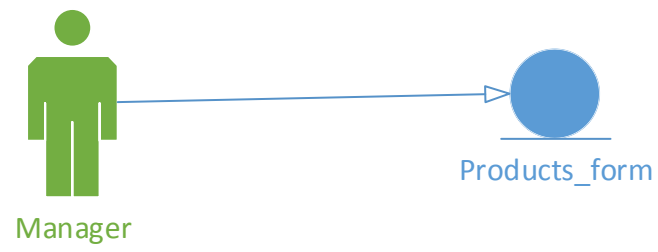
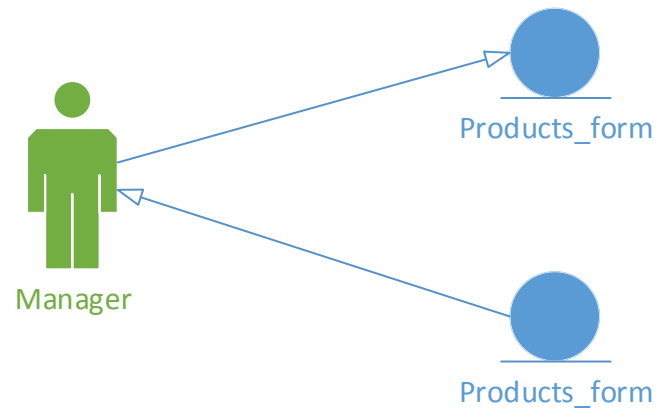


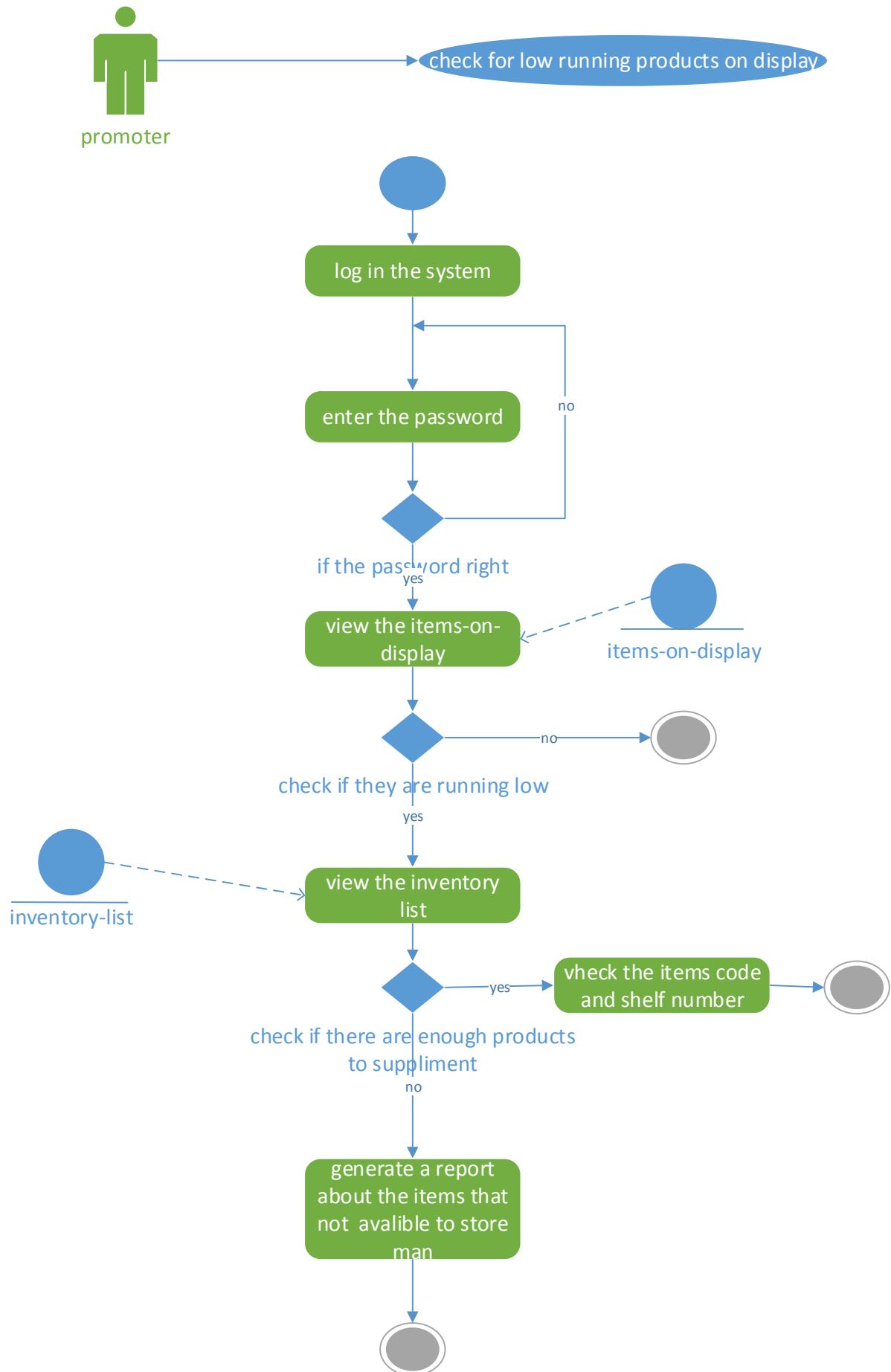


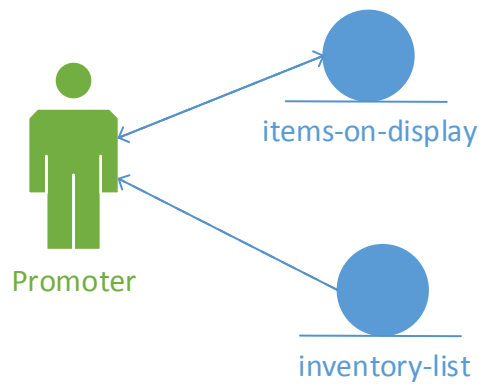


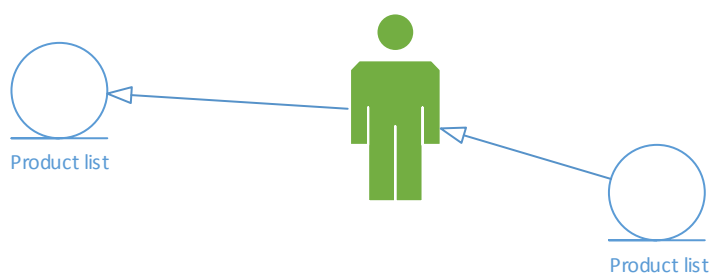
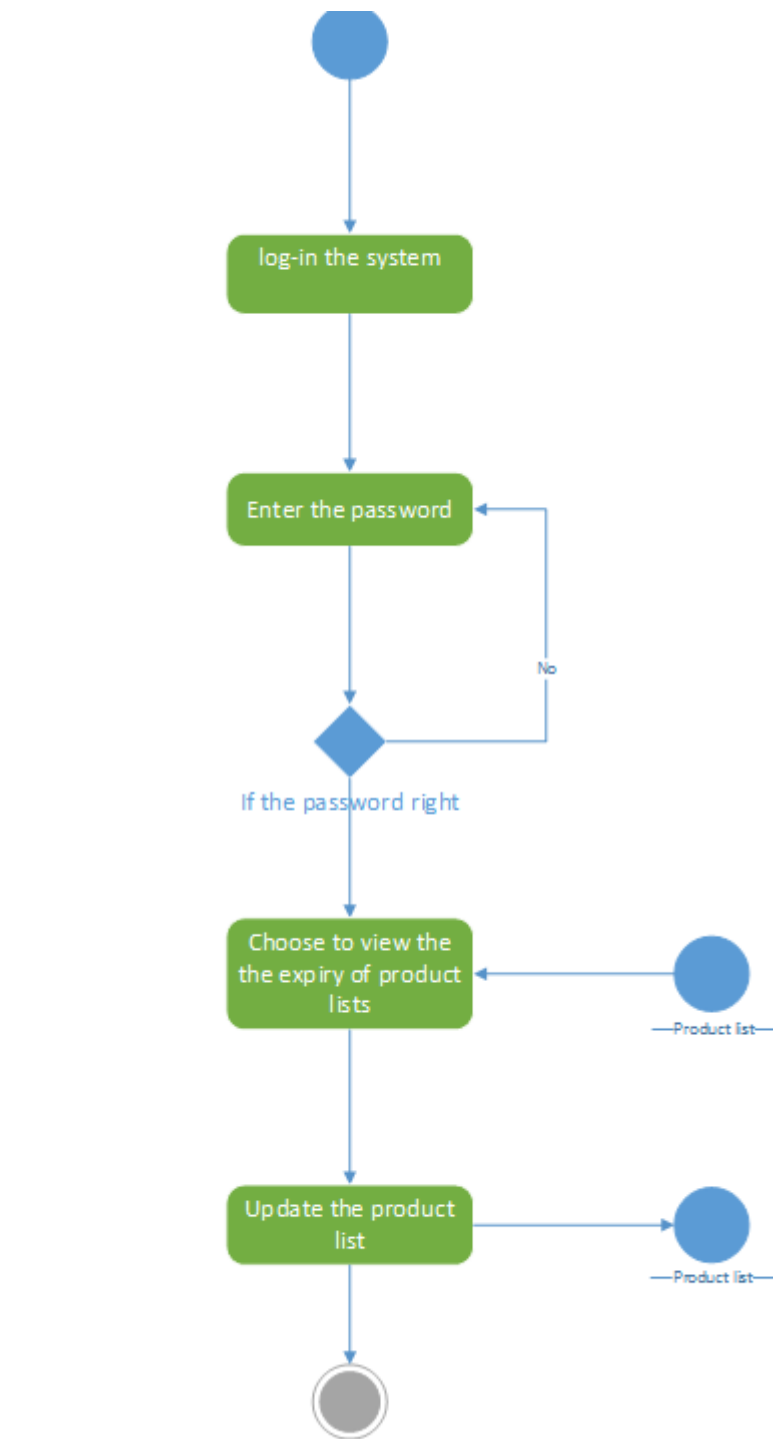




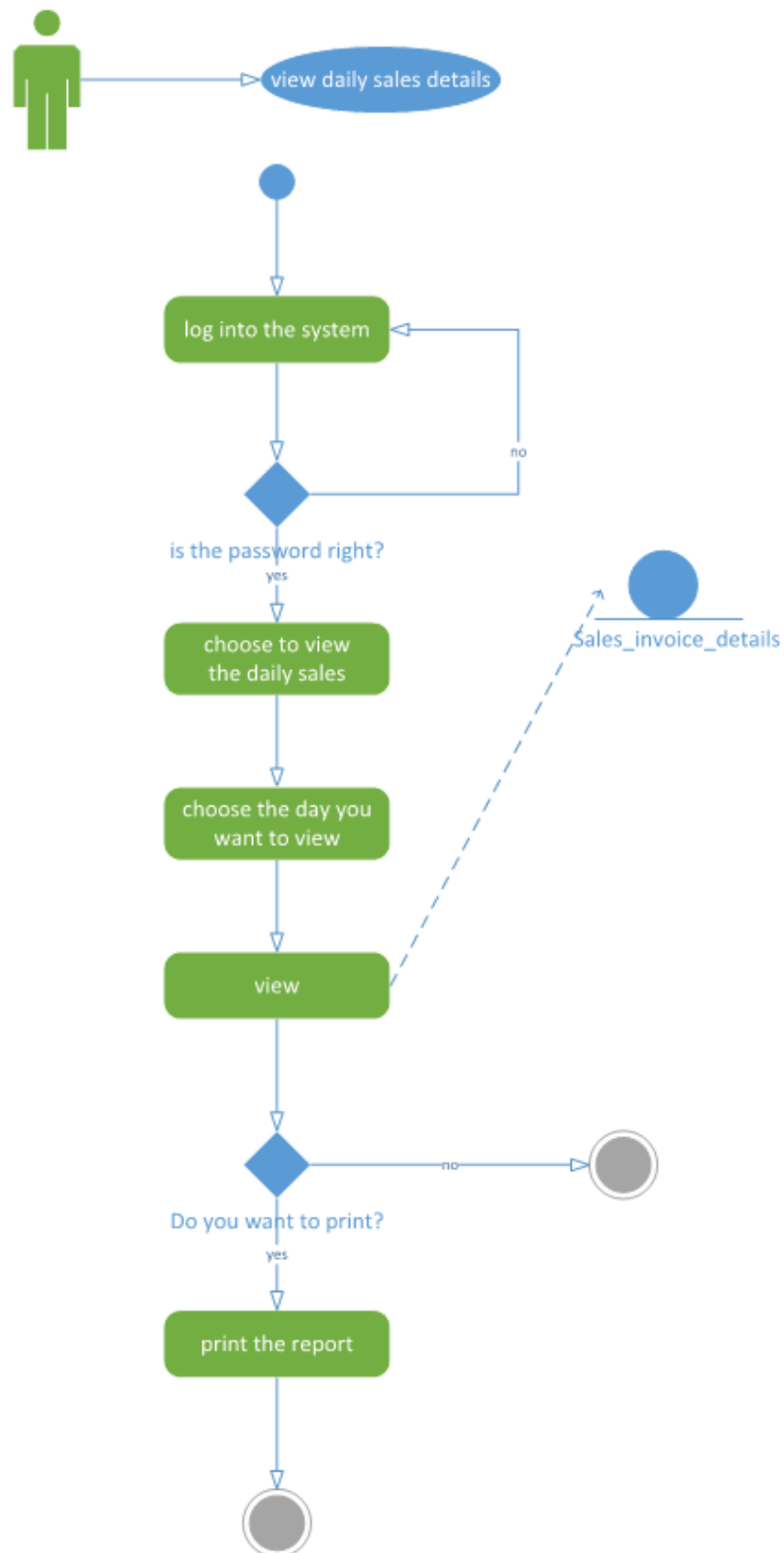


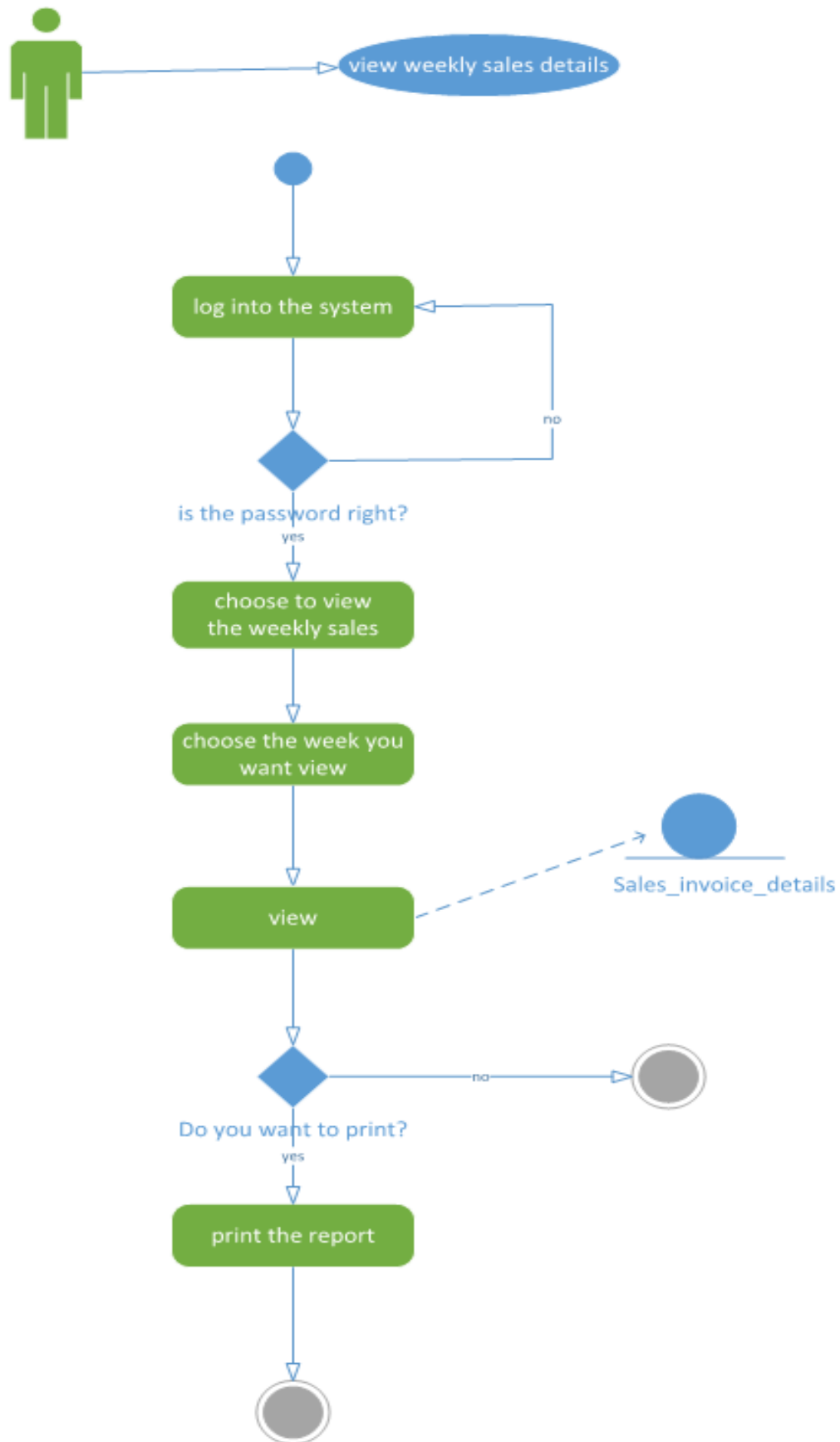


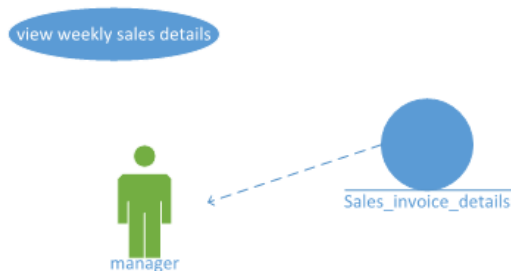
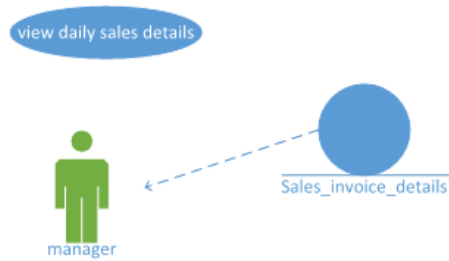












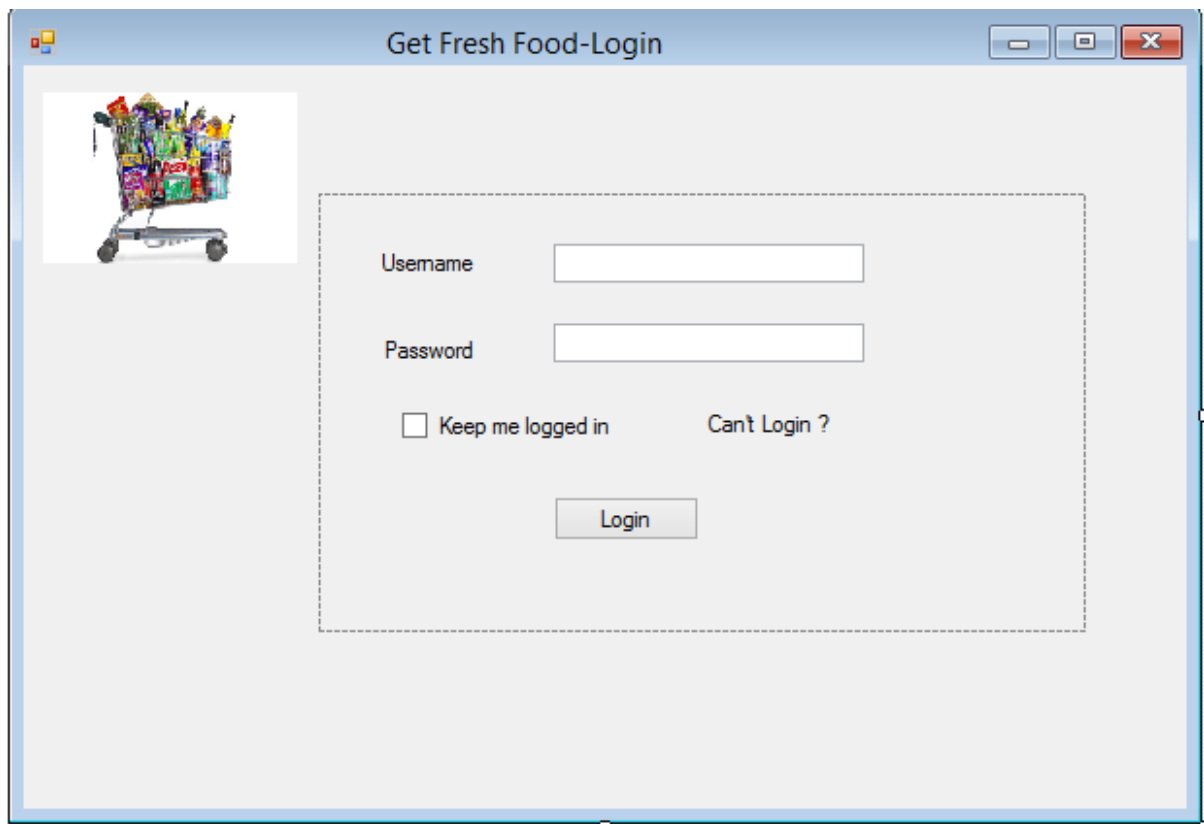
## ENTITY DESCRIPTIONS :

1. inventory \_details :- product name, product code, product weight,suppliercode,expiry date.
2. product\_form :-product name, product code,classification of products,category,expiry date,unit price.
3. purchase\_return\_details :- purchase return no., purchase invoice no.,product name,product code,unit price,returnquantity,amount,supplier name.
4. sales\_return\_details :-product name, product code,selling quantity.
5. material\_reeipt\_details :- material receipt no., supplier name,purchase order no.,productname,productcode,quantity,unitprice,amount,mode of transport.

6. purchase\_invoice\_details :- invoice no., material receipt no.,product name, product code,unit price,quantity,amount,supplier name.
7. purchase\_order\_details :- order no.,productname,product code,quantity,estimated price,supplier name,amount.
8. items\_on\_display\_details :- display shelf no.,product code,quantity,price,store shelf no.,product name.
9. user\_credentials :- username,password,e-mail,phone no.,role,address.
10. user\_roles :-screen names,username,roleid,save,update,view,delete
11. sales\_invoice\_details :- sales invoice no., product name,product code,quantity,unitprice,amount,discount.

## 4.2.2 SCREEN DESIGNS :

Login :



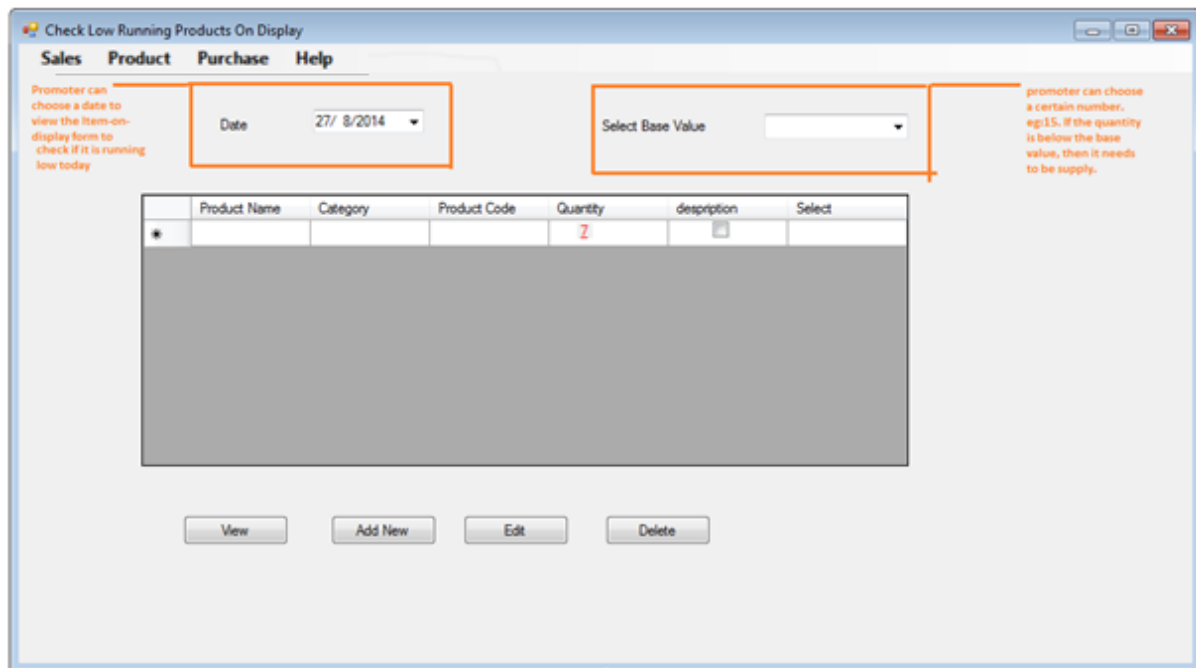
The screenshot displays a web application window titled "Get Fresh Food-Login". On the left side of the window, there is a small image of a shopping cart filled with various food items. The main content area is enclosed in a dashed rectangular border and contains the following elements:

- A label "Username" followed by a text input field.
- A label "Password" followed by a text input field.
- A checkbox labeled "Keep me logged in".
- A link labeled "Can't Login ?".
- A "Login" button centered below the form fields.

## LAUNCH PADS :

### 1. For Promoter :

Checking low running products



The screenshot shows a software window titled "Check Low Running Products On Display". It has a menu bar with "Sales", "Product", "Purchase", and "Help". Below the menu bar, there are two orange-bordered boxes. The first box contains a "Date" dropdown menu set to "27/ 8/2014". The second box contains a "Select Base Value" dropdown menu. To the right of the second box, there is a text box with the following text: "promoter can choose a certain number. eg:15. If the quantity is below the base value, then it needs to be supply." Below these boxes is a table with the following columns: "Product Name", "Category", "Product Code", "Quantity", "desription", and "Select". The "Quantity" column has a red "Z" in the first row. Below the table are four buttons: "View", "Add New", "Edit", and "Delete".

Promoter can choose a date to view the item-on-display form to check if it is running low today

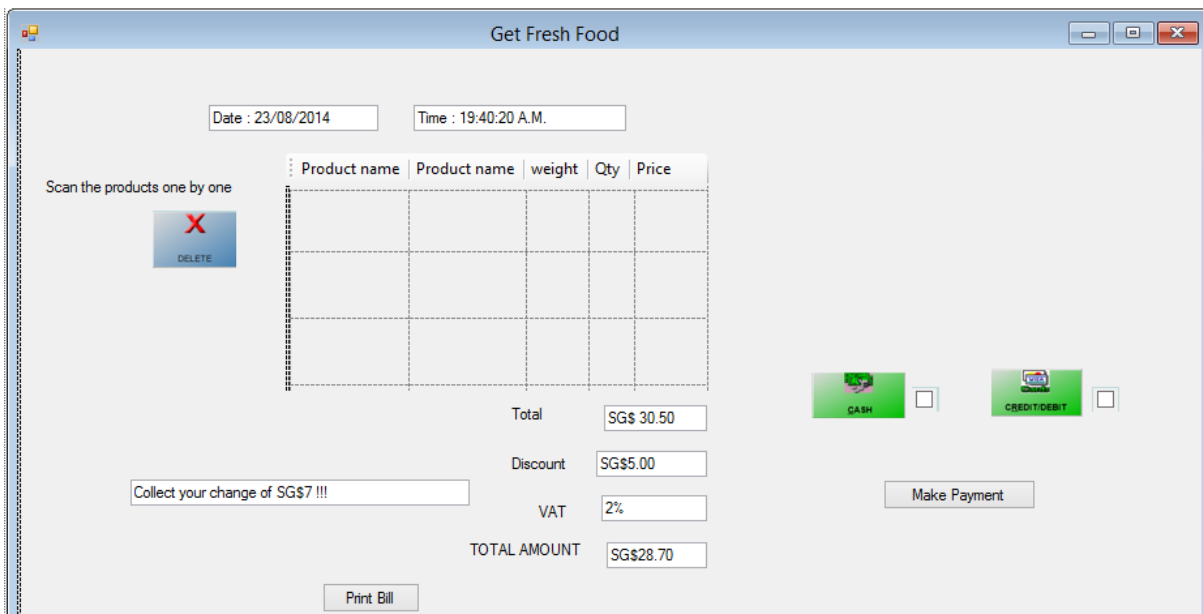
Select Base Value

promoter can choose a certain number. eg:15. If the quantity is below the base value, then it needs to be supply.

	Product Name	Category	Product Code	Quantity	desription	Select
*				Z		

View Add New Edit Delete

### 2. For Customer :



The screenshot shows a software window titled "Get Fresh Food". It has a menu bar with "Sales", "Product", "Purchase", and "Help". Below the menu bar, there are two text boxes: "Date : 23/08/2014" and "Time : 19:40:20 A.M.". Below these boxes is a text box with the text "Scan the products one by one". To the right of this text box is a "DELETE" button with a red "X" icon. Below the "DELETE" button is a table with the following columns: "Product name", "Product name", "weight", "Qty", and "Price". Below the table are four text boxes: "Total" (SG\$ 30.50), "Discount" (SG\$5.00), "VAT" (2%), and "TOTAL AMOUNT" (SG\$28.70). Below these text boxes is a text box with the text "Collect your change of SG\$7 !!!". To the right of the text boxes are two buttons: "CASH" and "CREDIT/DEBIT". Below these buttons is a "Make Payment" button. At the bottom of the window is a "Print Bill" button.

Date : 23/08/2014 Time : 19:40:20 A.M.

Scan the products one by one

DELETE

Product name	Product name	weight	Qty	Price

Total SG\$ 30.50

Discount SG\$5.00

VAT 2%

TOTAL AMOUNT SG\$28.70

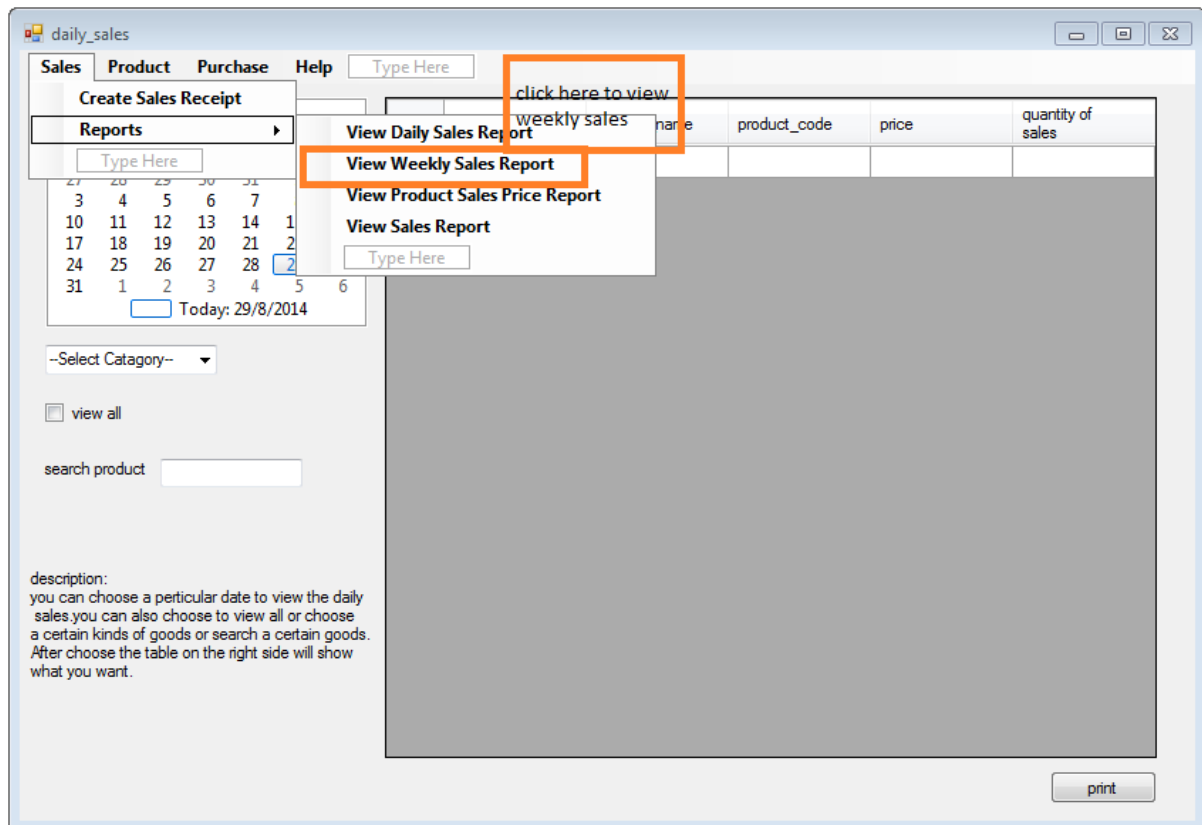
Collect your change of SG\$7 !!!

CASH CREDIT/DEBIT

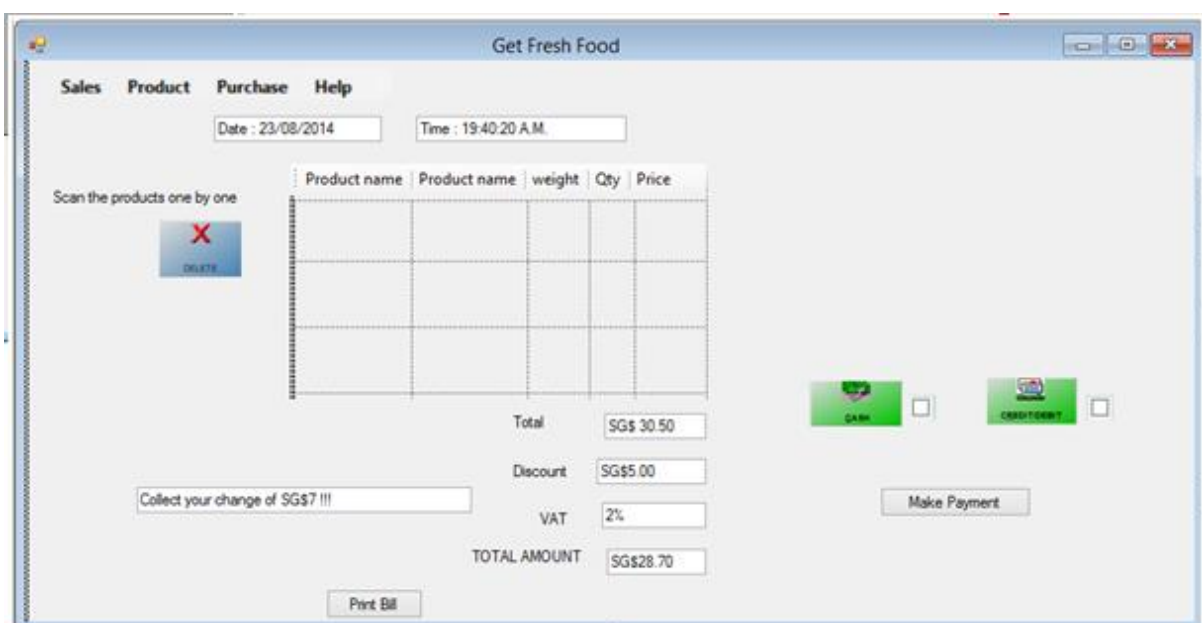
Make Payment

Print Bill

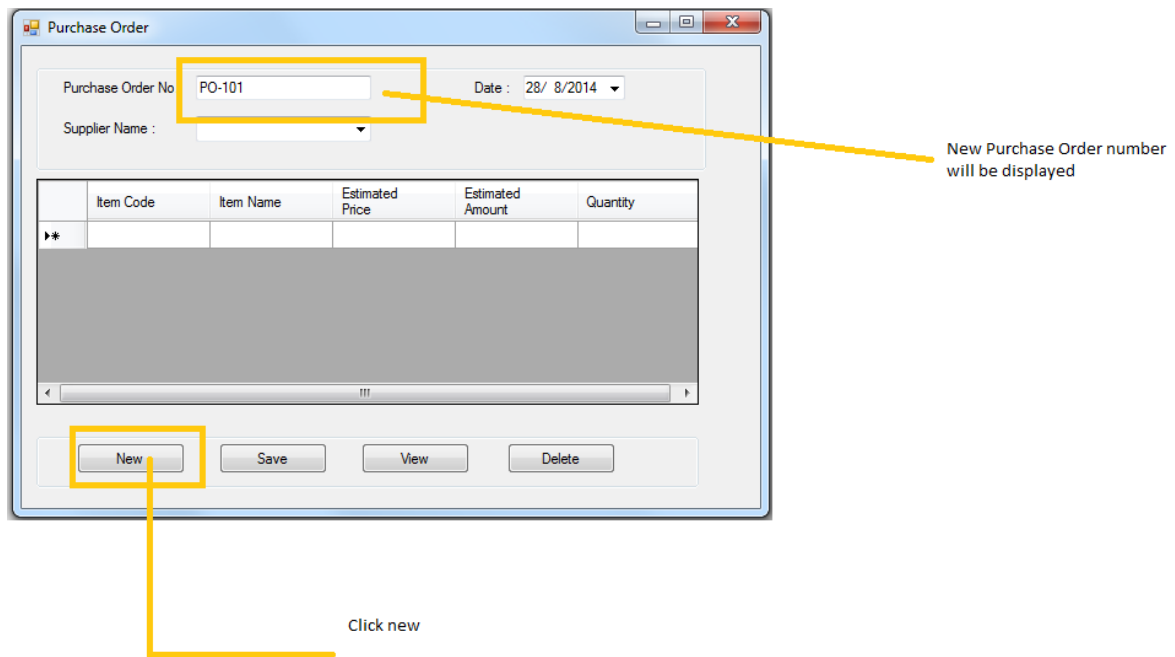
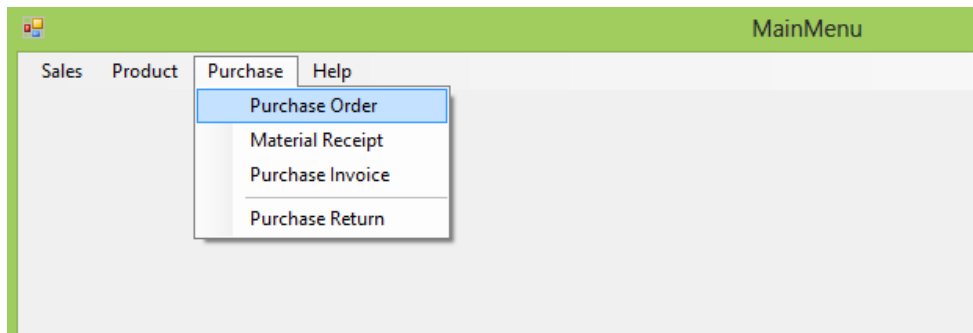
### 3. For Manager :



### 4. For Cashier :



## 5. For Storeman :





Purchase Order

Purchase Order No. PO-101 Date : 28/ 8/2014

Supplier Name : Bush

Item Code	Item Name	Estimated Price	Estimated Amount	Quantity
***				

New Save View Delete

Click here and press function key f4, to display the list of items

Purchase Order

Purchase Order No. PO-101 Date : 28/ 8/2014

Supplier Name : 101 James  
102 Bush  
103 Manmohan

Item Code	Item Name	Estimated Price	Estimated Amount	Quantity
***				

New Save View Delete

Click drop-down button, then list of supplier names will be displayed

Purchase Order

Purchase Order No. PO-101 Date : 28/ 8/2014

Supplier Name :

Product Code	Product Name	Quantity	Estimated Price	Estimated Amount
P101	LUZ	3		
P102	CORNFLAKES	6		

New Save View Delete

List of products will be displayed

Purchase Order

Purchase Order No. PO-101 Date : 28/ 8/2014

Supplier Name :

	Product Code	Product Name	Quantity	Estimated Price	Estimated Amount
✎	P101	LUX	10	5	50
*					

New Save View Delete

After clicking save, the data will be saved

After selecting one product , the selected list will be populated here. Then enter the quantity, the amount will be calculated here

Purchase Order

Purchase Order No. PO-101 Date : 28/ 8/2014

Supplier Name :

Product Code	Product Name	Quantity	Estimated Price	Estimated Amount

New Save View Delete

After clicking View, View Purchase order Screen will be displayed

View Purchase Order

Purchase Order No.	Supplier Name	Product Code	Product Name	Quantity	Price
PO-101	James	P101	LUX	10	5
PO-102	Bush	P102	CORNFLAKES	10	5

Select Cancel

View Purchase Order

Purchase Order No.	Supplier Name	Product Code	Product Name	Quantity	Price
PO-101	James	P101	LUX	10	5
PO-102	Bush	P102	CORNFLAKES	10	5

Select Cancel

Select a record and click select

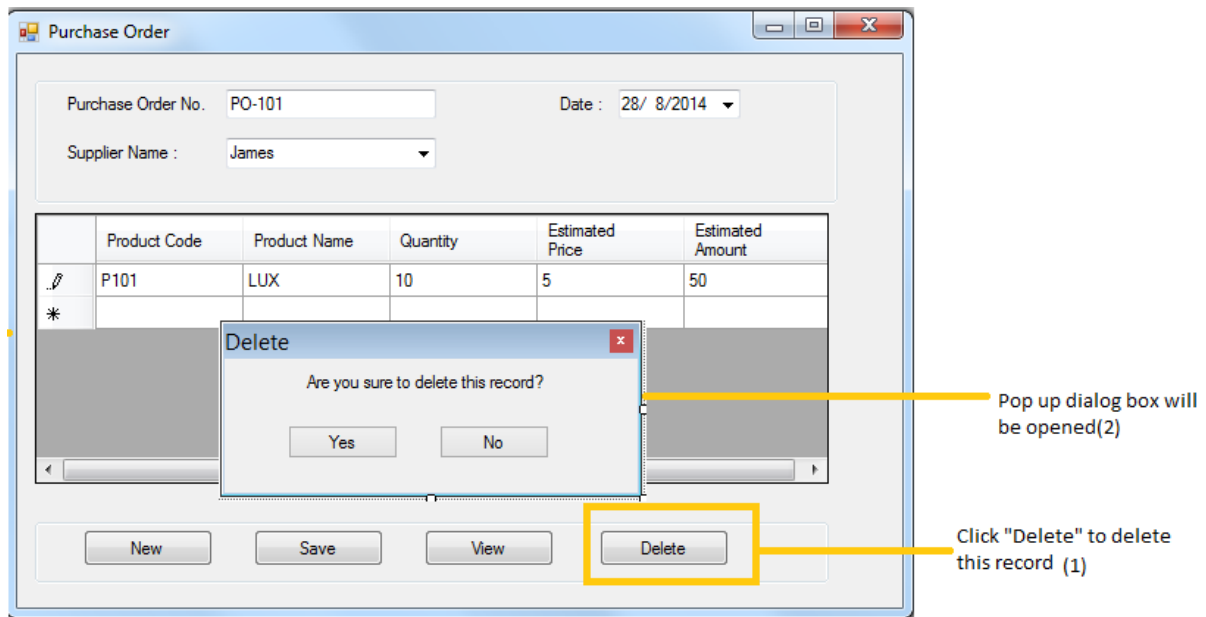
Purchase Order

Purchase Order No. PO-101 Date : 28/ 8/2014

Supplier Name : James

Product Code	Product Name	Quantity	Estimated Price	Estimated Amount
P101	LUX	10	5	50

New Save View Delete



### **USE CASE DESCRIPTION:**

Purchase order screen is used by Store Man to purchase the goods from the supplier in case of low running goods in the inventory.

#### **Basic flow of events:**

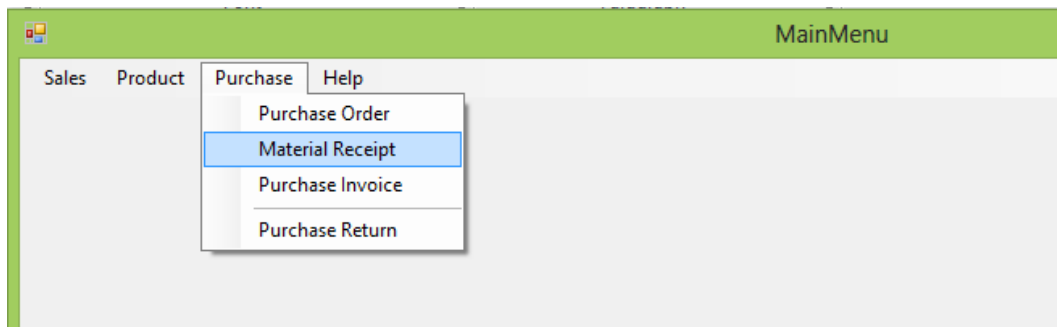
1. This use case is called after the User clicks the Menu option "Purchase order" in Main menu
2. The Purchase Order screen is displayed on the screen
3. The User selects the supplier name, products and enters the quantity, estimated price and estimated amount
4. The system saves the data
5. Use case terminates

#### **PreCondition:**

The User Authentication has been verified

#### **Post Condition:**

All transactions are logged .



The screenshot shows the "Material Receipt" form. At the top, there are fields for "Material Receipt No." (MR-101) and "Date" (28/ 8/2014). Below these is a "Supplier Name" field with a dropdown arrow. A yellow box highlights the dropdown arrow, and a yellow line points to it with the text "Click to view supplier names". The dropdown menu is open, showing "101 James" and "102 Bush". Below the supplier name field is a table with columns: "Purchase Order No.", "Product Code", "Product Name", "Quantity", "Unit Price", and "Amount". The first row is highlighted in blue. Below the table is a "Mode of transport" field. At the bottom, there are four buttons: "New", "Save", "View", and "Delete". A yellow box highlights the "New" button, and a yellow line points to it with the text "Click to enter a new record".

Purchase Order No.	Product Code	Product Name	Quantity	Unit Price	Amount
▶*					

MATERIAL RECEIPT FLOW

Material Receipt

Material Receipt No. : MR-101      Date : 29/ 8/2014

Supplier Name : James

Purchase Order No.	Product Code	Product Name	Quantity	Unit Price	Amount
PO-101	P101	LUX	10	5	50

Mode of transport :

New   Save   View   Delete

Click here and press f4

Display the list of PO numbers

Material Receipt

Material Receipt No. : MR-101      Date : 29/ 8/2014

Supplier Name : James

Purchase Order No.	Product Code	Product Name	Quantity	Unit Price	Amount
PO-101	P101	LUX	10	5	50

Mode of transport : TRUCK

New Save View Delete

List will be populated in the grid

Click save to save the details

Material Receipt

Material Receipt No. : MR-102      Date : 29/ 8/2014

Supplier Name :

Purchase Order No.	Product Code	Product Name	Quantity	Unit Price	Amount
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Mode of transport :

New Save View Delete

ViewMaterialReceipt

Material Receipt	Purchase Order No.	Supplier Name	Product Code	Product Name	Quantity	Unit Price
MR-101	PO-101	James	P101	LUX	10	5

Select Cancel

Click to view the saved material receipts

Select a particular record

Click select to view the transaction screen

Material Receipt

Material Receipt No. : MR-101      Date : 29/ 8/2014

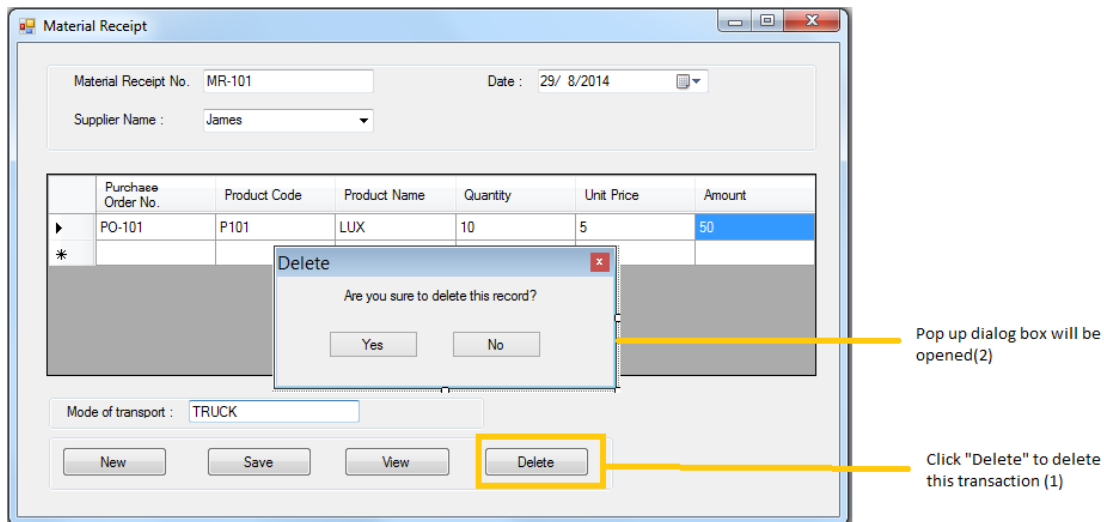
Supplier Name : James

Purchase Order No.	Product Code	Product Name	Quantity	Unit Price	Amount
PO-101	P101	LUX	10	5	50

Mode of transport : TRUCK

New Save View Delete





## USE CASE DESCRIPTION:

This use case is used by Store Man for entering the Products received from the supplier into the system

### Basic Flow of events:

1. This use case is called when the User clicks Material Receipt Menu Option in Main menu  
**Purchase ->Material Receipt**
2. Material receipt screen is displayed on the screen
3. The User selects the supplier name from which he received the products and chooses the purchase order number and enters the quantity received.
4. The system verifies the quantity
5. The data is saved in the system upon successful verification

### Alternative flow of events:

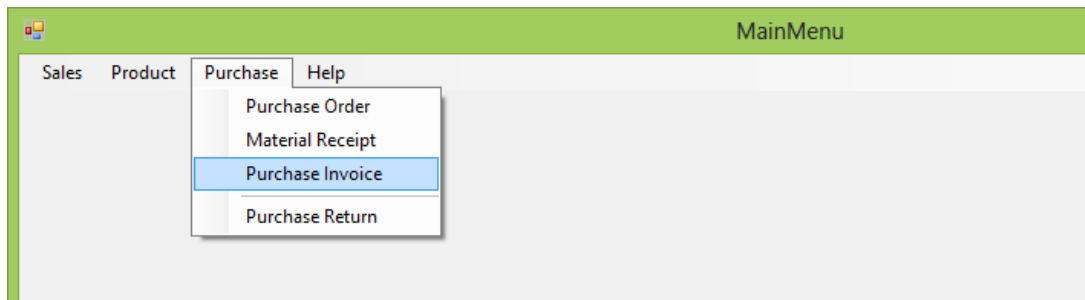
1. If the quantity received is greater than the quantity ordered, the system displays the reason for Non Approval and displays the Material receipt Screen

### Preconditions:

The User Authentication has been verified after he enters his username and password in the Login screen

### PostConditions:

All transactions are logged



The screenshot shows a "Purchase Invoice" form. At the top, there are fields for "Purchase Invoice No." (containing "PI-101") and "Date" (containing "29/ 8/2014"). Below these is a "Supplier Name" dropdown menu showing "James". A yellow arrow points from the text "Choose supplier name" to this dropdown. The main part of the form is a table with columns: "MR No.", "Product Code", "Product Name", "Unit Price", "Quantity", and "Amount". The first row of data is highlighted in blue and contains the values: "MR-101", "P101", "LUX", "5", "10", and "50". A yellow arrow points from the text "Choose the material receipt number" to the "MR No." column of this row. Below the table, there are input fields for "Discount (%)" and "VAT %", and four buttons: "New", "Save", "View", and "Delete".

MR No.	Product Code	Product Name	Unit Price	Quantity	Amount
MR-101	P101	LUX	5	10	50

Purchase Invoice Flow

Purchase Invoice No. PI-101 Date: 29/ 8/2014  
Supplier Name: James

MR No.	Product Code	Product Name	Unit Price	Quantity	Amount
MR-101	P101	LUX	5	10	50

Discount (%) 1 VAT % 0.5

New Save View Delete

Click to save details

Purchase Invoice No. PI-101 Date: 29/ 8/2014  
Supplier Name: James

MR No.	Product Code	Product Name	Unit Price	Quantity	Amount
MR-101	P101	LUX	5	10	50

Discount (%) 1 VAT % 0.5

New Save View Delete

Click "View" to view the saved material receipts

Purchase Invoice No. MR No. Supplier Name Product Code Product Name Quantity Unit Price

Purchase Invoice No.	MR No.	Supplier Name	Product Code	Product Name	Quantity	Unit Price
PI-101	MR-101	James	P101	LUX	10	5

Select Cancel

Select the particular record

Click "Select" to view the record in transaction screen

Purchase Invoice No. PI-101 Date: 29/ 8/2014  
Supplier Name: James

MR No.	Product Code	Product Name	Unit Price	Quantity	Amount
MR-101	P101	LUX	5	10	50

Discount (%) 1 VAT % 0.5

New Save View Delete

Purchase Invoice No. PI-101 Date: 29/ 8/2014  
Supplier Name: James

MR No.	Product Code	Product Name	Unit Price	Quantity	Amount
MR-101	P101	LUX	5	10	50

Discount (%) 1 VAT % 0.5

New Save View Delete

**Delete**

Are you sure to delete this record?

Yes No

Pop up dialog box will be displayed(2)

Click here to delete this record (1)

## USE CASE DESCRIPTION:

This use case is used by Store Man after entering the Material receipt. The invoice issued by the supplier is entered here

### **Basic Flow of Events:**

- 1.This Screen is displayed when the User clicks Purchase invoice menu option in Main Menu Purchase->Purchase Invoice
- 2.The User Chooses the supplier name and chooses the Material receipt number for which the Invoice need to be entered

3. The User enters the invoice amount
4. The system verifies the input and saves the data .
5. Use case terminates

**Alternative Flow of events:**

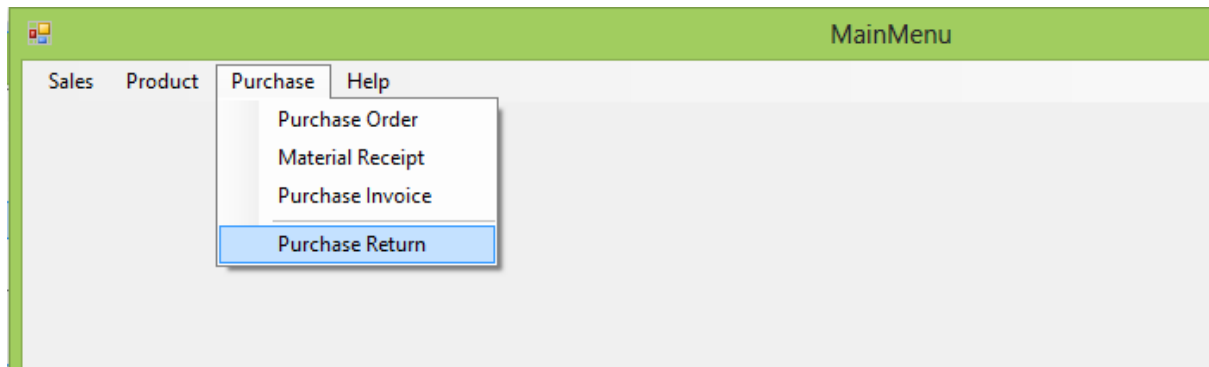
1. When the user is not authorised to view the Purchase invoice screen, then the system displays the reason for non approval and Purchase invoice screen is not displayed

**Preconditions:**

The User Authentication has been verified

**Post conditions:**

All transactions are logged



PurchaseReturn

Purchase Return No. PR-101 Date : 29/ 8/2014

Supplier Name : James

Choose the supplier name

Purchase Invoice No.	MR No.	Product Code	Product Name	Quantity	Unit Price	Amount
▶▶						
INVOICE_NO:	MR NO:	PRODUCT_CODE	PRODUCT_NAME	QUANTITY	UNIT PRICE	AMOUNT
PI-101	MR-101	P101	LUX	10	5	50

Choose the purchase invoice number

New Save View Delete

PURCHASE RETURN FLOW

PurchaseReturn

Purchase Return No. : PR-101      Date : 29/ 8/2014

Supplier Name : James

	Purchase Invoice No.	MR No.	Product Code	Product Name	Quantity	Unit Price	Amount
/	PI-101	MR-101	P101	LUX	10	5	50
*							

New   **Save**   View   Delete

Click save to save the details

PurchaseReturn

Purchase Return No. : PR-101      Date : 29/ 8/2014

Supplier Name :

	Purchase Invoice No.	MR No.	Product Code	Product Name	Quantity	Unit Price	Amount
**							

New   Save   **View**   Delete

Click View to View the saved purchase return records

View Purchase Return

Purchase Return No.	Purchase Invoice No.	Supplier	Product Code	Product Name	Quantity	Unit Price
PR-101	PI-101	James	P101	LUX	10	5

**Select**   Cancel

Select the record to display in transaction screen

Click select to View the record in transaction screen

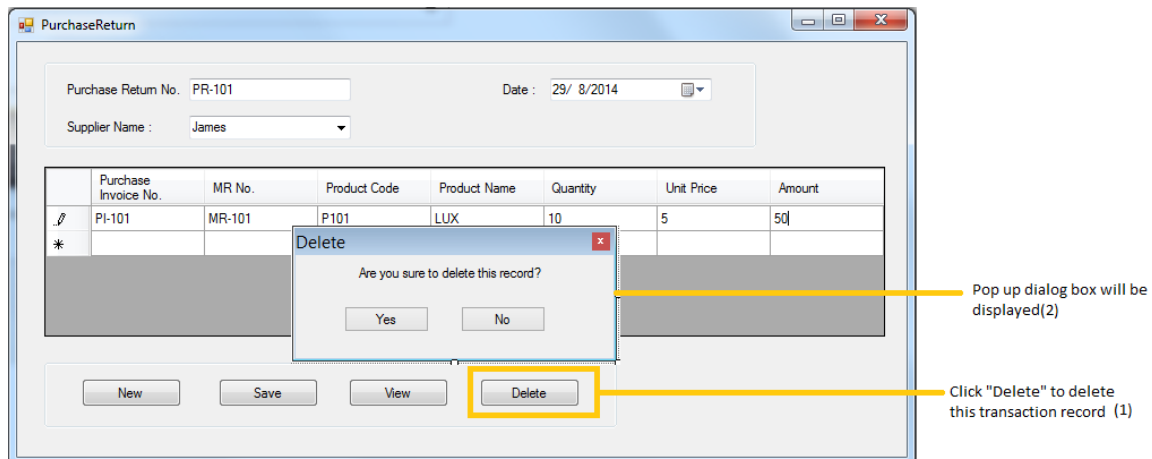
PurchaseReturn

Purchase Return No. : PR-101      Date : 29/ 8/2014

Supplier Name : James

	Purchase Invoice No.	MR No.	Product Code	Product Name	Quantity	Unit Price	Amount
/	PI-101	MR-101	P101	LUX	10	5	50
*							

New   Save   View   Delete



## **USE CASE DESCRIPTION:**

This use case is used by the Store Man for returning the damaged and expired products to the supplier

### **Basic Flow of Events:**

1.The Screen is displayed when the User clicks the Purchase return menu option in the Main menu

Purchase->Purchase return

2.The Purchase return screen is displayed.

3. The user chooses the supplier name and Purchase invoice number for which the purchase return needs to be done

4.The user enters the quantity to be returned

5.The system verifies the quantity

6.After successful verification ,system saves the data .

### **Alternative flow of events:**

1.When the user is not authenticated to View the purchase return screen, the system displays the reason for the Non-Approval and does not display the Purchase return screen

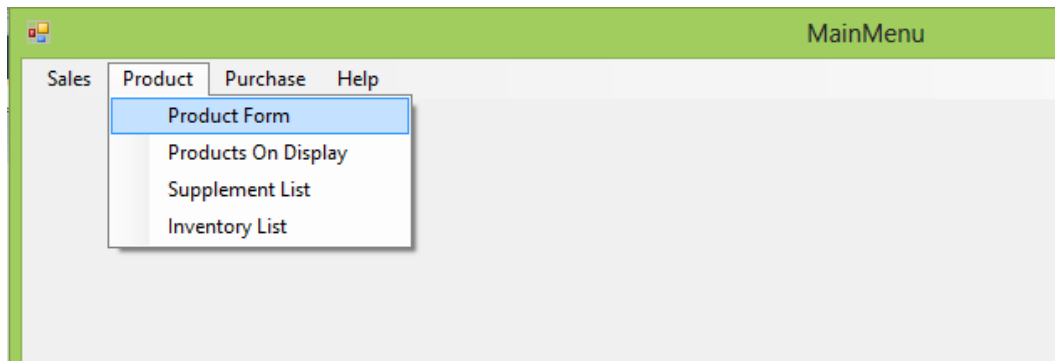
2.When the quantity entered by the user is greater than the quantity received, the system does not save the data and displays the reason for Non-approval

### **Preconditions:**

The user authentication has been verified

### **Post conditions:**

All transactions are logged



Product Code: P101 Product Name: CORNFLAKES Date: 31-08-2014

Supplier Name: James Classification: Fast Selling

Category	Product Weight	Unit Price	Quantity	Discount	Description	ExpiryDate
**						12-09-2014

New Save View Delete

Product Code: P101 Product Name: CORNFLAKES Date: 31-08-2014

Supplier Name: James Classification: Fast Selling

Category	Product Weight	Unit Price	Quantity	Discount	Description	ExpiryDate
500G	500	5	10	2	C. FLAKES 500	12-09-2014

New Save View Delete

Add a product to product form

## USE CASE DESCRIPTION:

This use case is used by Branch Manager for adding a new product into the store .

### **Basic flow events:**

- 1.This use case is called when the user clicks the Product form menu option in Main menu
- 2.The product form Screen is displayed
- 3.The User enters the supplier name,product name and chooses the classification
- 4.The user enters the category,expiry date,unit price of the product and quantity
- 5.After successful verification, the system saves the data



**Preconditions:**

The User Authentication has been verified

**Postconditions:**

All the transactions are logged

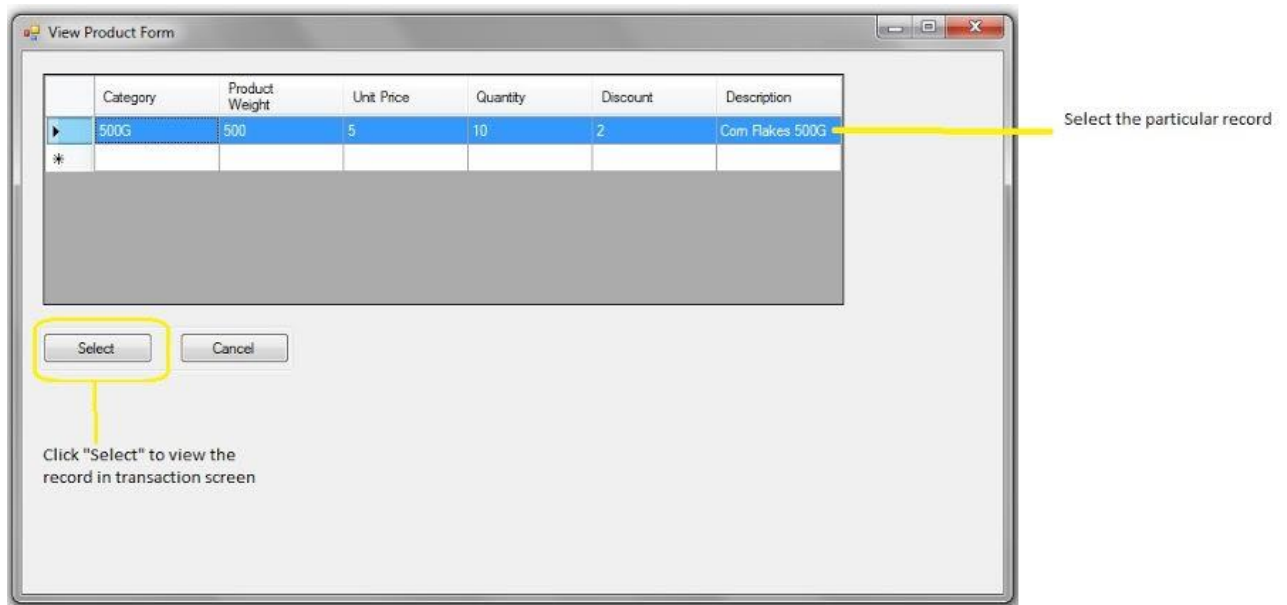
The screenshot shows a 'Product Form' window with the following fields and controls:

- Product Code: P101
- Product Name: [Empty text box]
- Date: 31-08-2014 (dropdown)
- Supplier Name: [Empty dropdown]
- Classification: [Empty dropdown]

	Category	Product Weight	Unit Price	Quantity	Discount	Description	ExpiryDate
▶▶							12-09-2014

Below the table is a horizontal scrollbar. At the bottom of the form are four buttons: 'New', 'Save', 'View', and 'Delete'. The 'View' button is highlighted with a yellow box, and a yellow arrow points from it to the text 'Click View to view the product details' located below the form.

Click View to view the product details



Product Form

Product Code: P101 Product Name: CORNFLAKES Date: 31-08-2014

Supplier Name: James Classification: Fast Selling

	Category	Product Weight	Unit Price	Quantity	Discount	Description	ExpiryDate
▶	500G	500	5	10	2	C FLAKES 500	12-09-2014
*							

New Save View Delete

The saved record will be displayed

## **USE CASE DESCRIPTION:**

This use case is used by Branch Manager for viewing the products

**Basic flow events:**

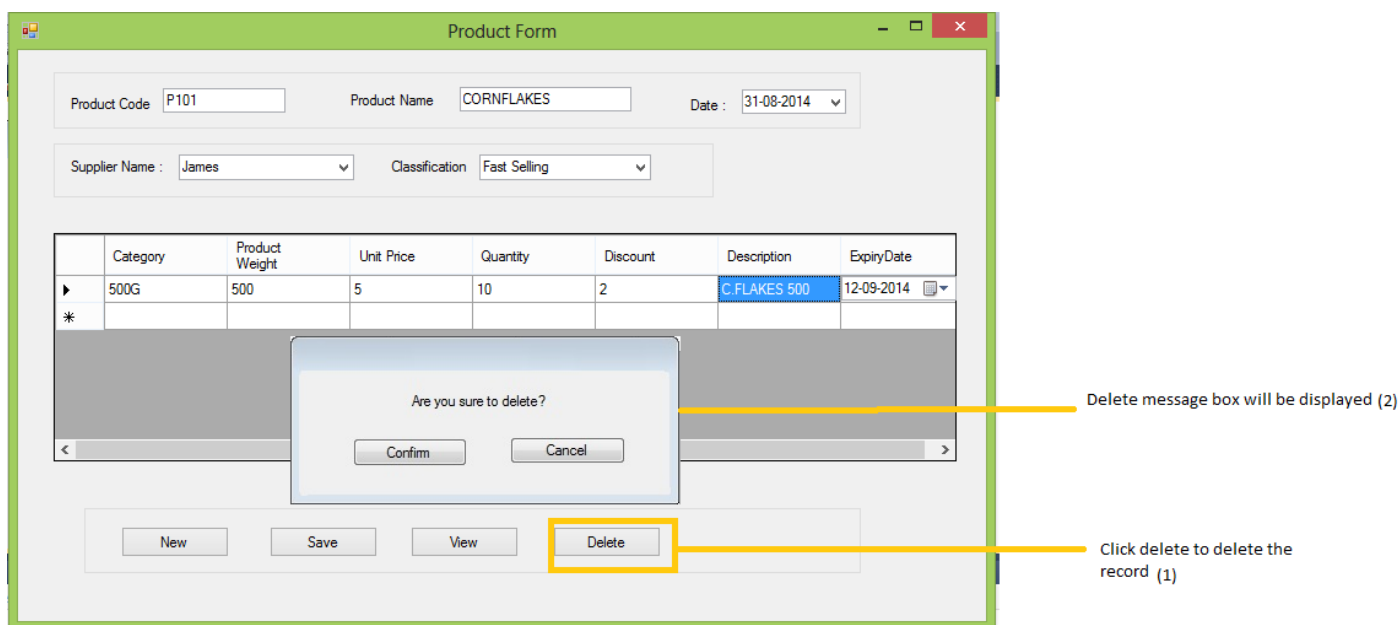
- 1.This use case is called when the user clicks the Product form menu option in Main menu
- 2.The product form Screen is displayed
- 3.The User chooses the product name from the new window
- 4.The user can either edit(update) or delete the record
- 5.After successful verification, the system saves the data

**Preconditions:**

The User Authentication has been verified

**Postconditions:**

All the transactions are logged

**USE CASE DESCRIPTION:**

This use case is used by Branch Manager for Deleting the products from the Store and the system

**Basic flow events:**

- 1.This use case is called when the user clicks the Product form menu option in Main menu
- 2.The product form Screen is displayed

3.The User chooses the product name from the new window

4.The user deletes

5.After successful verification, the system saves the data

**Alternative flow of events:**

If user is not authenticated to view the screen, the system will display the reason for Non-Approval and displays the Main menu

**Preconditions:**

The User Authentication has been verified

**Postconditions:**

All the transactions are logged

## **6. For Owner :**

view\_sales\_report

Sales Product Purchase Help

Sale Date : Friday , 29 August , 2014 to Friday , 29 August , 2014

	Product Name	Product Code	Category	Sale Amount	Sale Price	Sale Date
*						
*						
*						
*						
*						
*						
*						

View Print Cancel

*the system users can select the dates of sales they want to view through the calendar which is more convenient for them instead of inputting the dates*

August, 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Today: 29/8/2014

## Checking running low

Check Low Running Products On Display

Promoter can choose a date to view the Item-on-display form to check if it is running low today

Date: 27/ 8/2014

Select Base Value

promoter can choose a certain number. eg:15. If the quantity is below the base value, then it needs to be supply.

	Product Name	Category	Product Code	Quantity	desription	Select
*				Z		<input type="checkbox"/>

View Add New Edit Delete

## Supplement list :

Suppliment\_List

Promoter can enter the product code to select all the products needed to supply and then the form are show as below

Product Code

Quantity

Promoter can enter how many specific products needed to supply Then it will show at column Quantity

	Product Code	Product Name	Category	Quantity	desription	Select
*	C104	HLL	Ice Cream	15		<input type="checkbox"/>

View Add New Edit Delete

## Search inventory list :

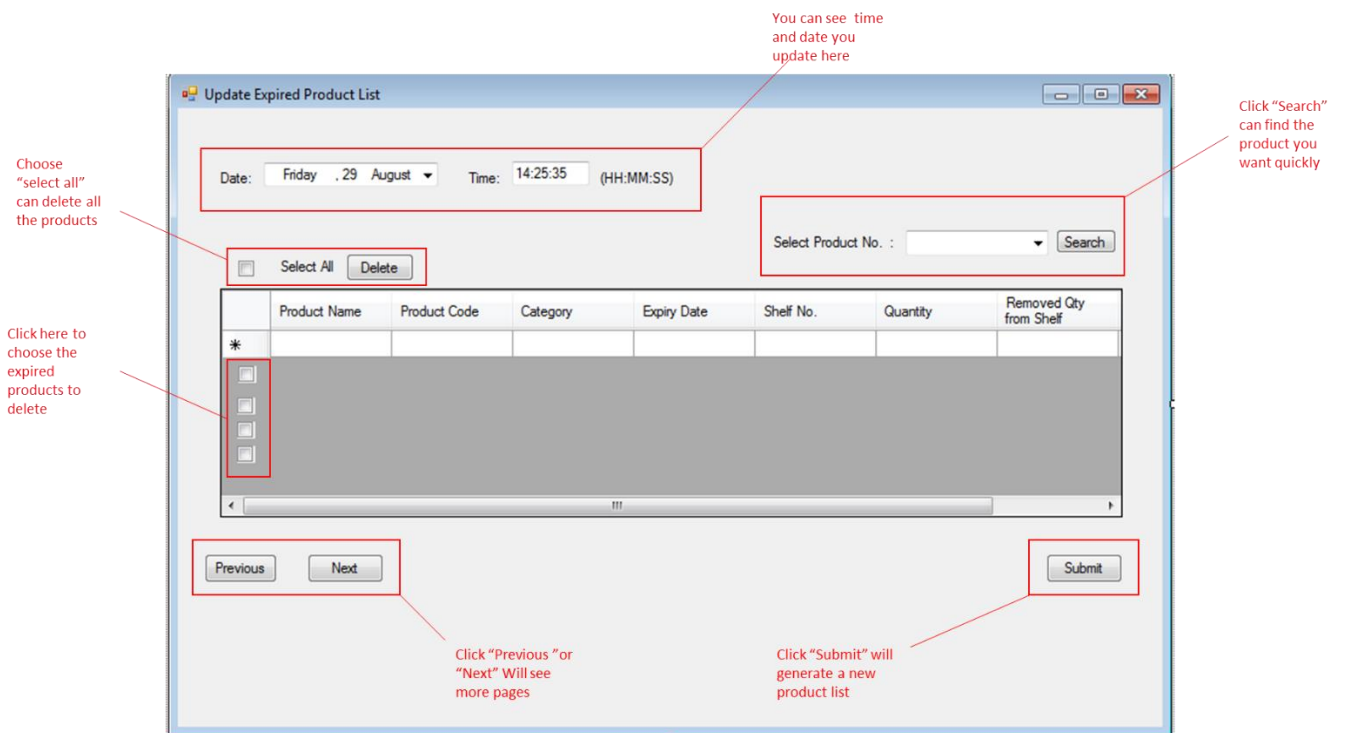
Search In Inventory List

Product Code

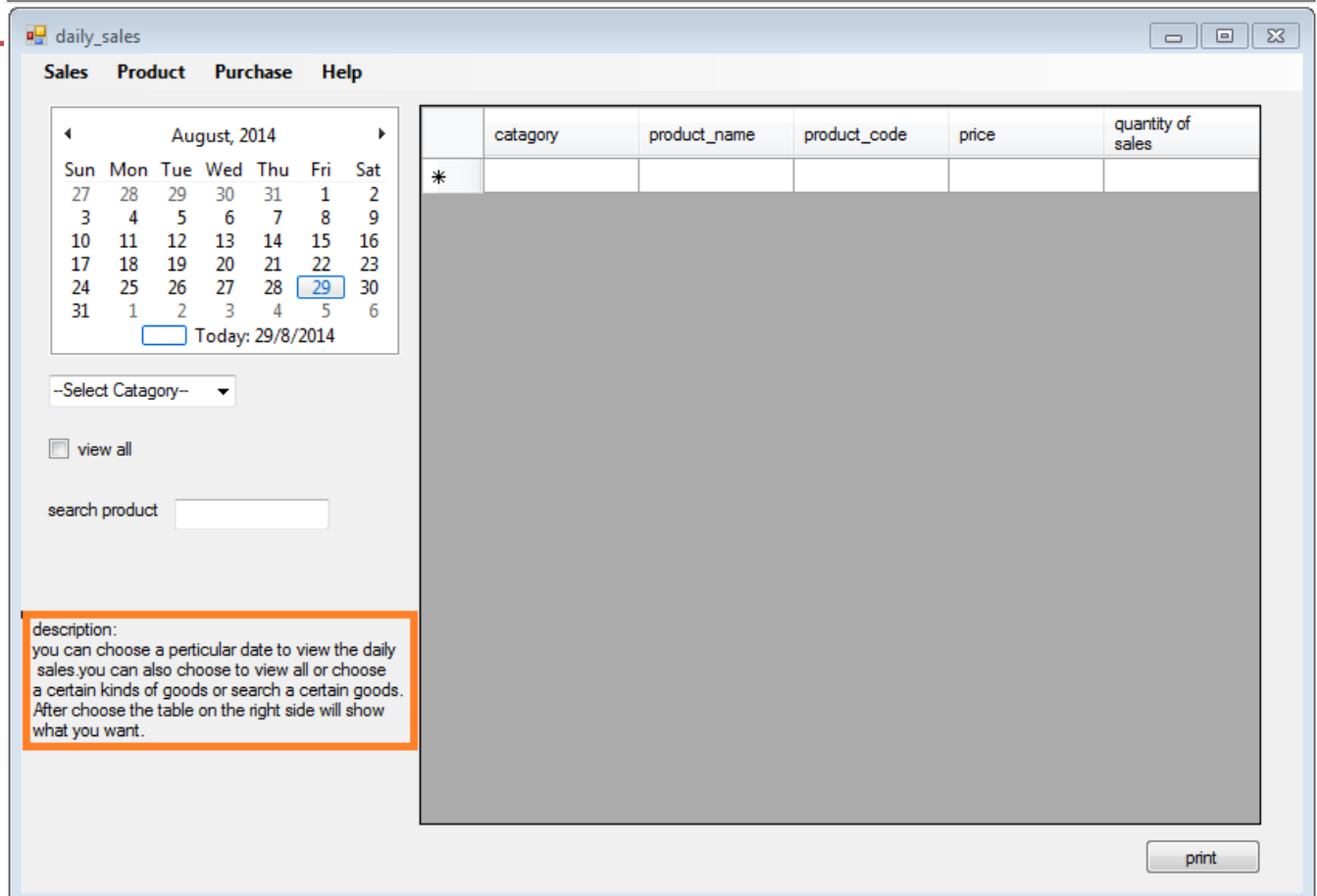
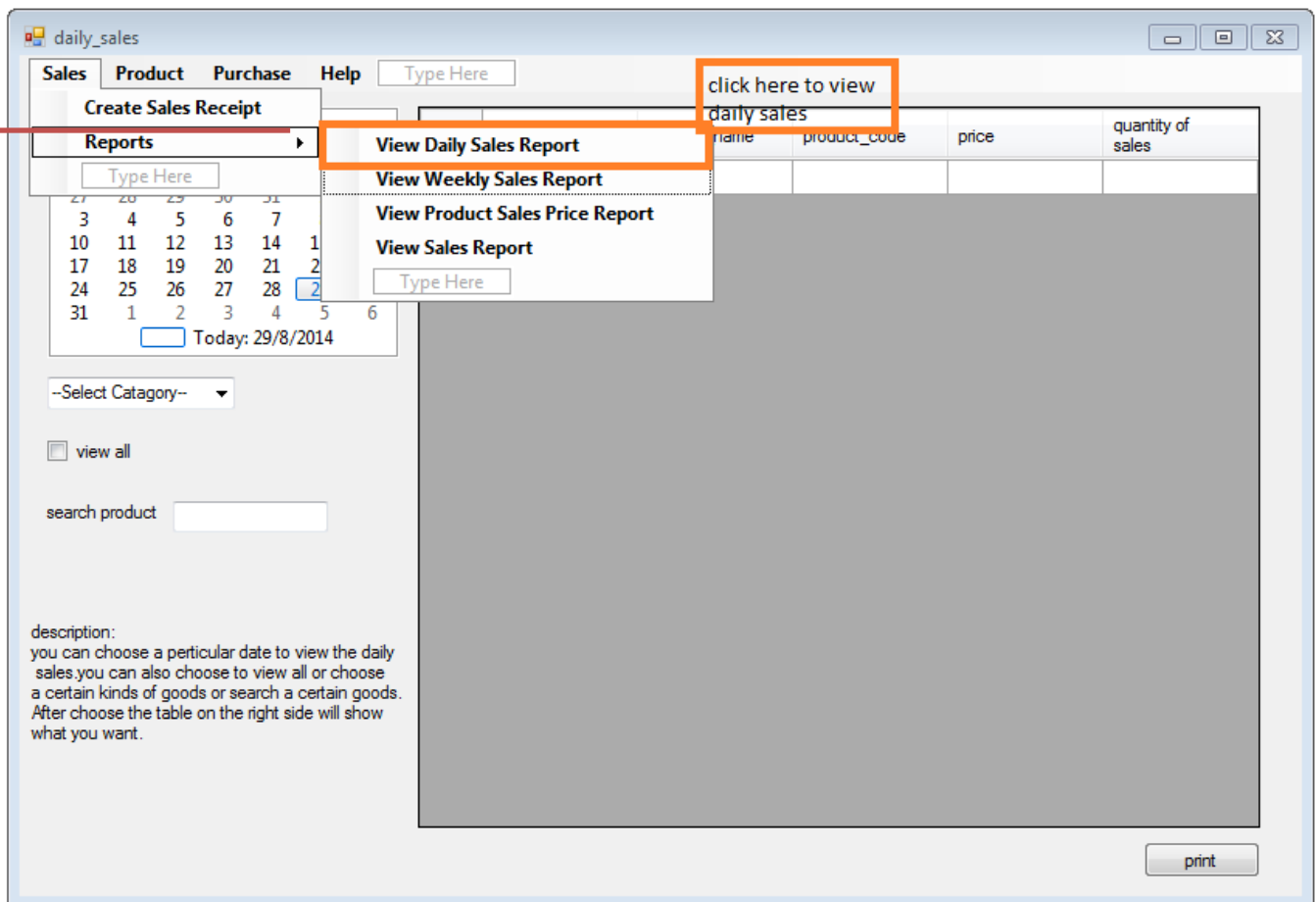
Promoter can search the product through the code and then check if there are enough products in inventory by checking column quantity

	Product Code	Product Name	Category	Quantity In Inventory	Shelf No.	desription	Select
*	C104	HLL	Ice Cream	2	A7		<input type="checkbox"/>

View Add New Edit Delete







daily\_sales

Sales

Product

Purchase

Help

Type Here

Create Sales Receipt

Reports

Type Here

3

4

5

6

7

1

10

11

12

13

14

2

17

18

19

20

21

2

24

25

26

27

28

2

31

1

2

3

4

5

6

Today: 29/8/2014

--Select Catagory--

view all

search product

description:

you can choose a perticular date to view the daily sales.you can also choose to view all or choose a certain kinds of goods or search a certain goods. After choose the table on the right side will show what you want.

click here to view

weekly sales

View Daily Sales Report

View Weekly Sales Report

View Product Sales Price Report

View Sales Report

Type Here

name

product\_code

price

quantity of sales

print

weekly\_sales

Sales

Product

Purchase

Help

start date

Friday , 29 August , 2014

end date

Friday , 29 August , 2014

--Select Catagory--

view all

search product

description:

you can choose a perticular period to view by choose the start date and end date. you can also choose to view all or search a certain product .After choosing the table on the right side will show what you want.

catagory

product\_name

product\_code

quantity of sales

\*

print

view\_sales\_report

Sale Date : Friday , 29 August , 2014 to Friday , 29 August , 2014

	Product Name	Product Code	Category	Sale Amount	Sale Price	Sale Date
*						
*						
*						
*						
*						
*						
*						

View Print Cancel

*the system users can select the dates of sales they want to view through the calendar which is more convenient for them instead of inputting the dates*

August, 2014

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	29	30	31	1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31	1	2	3	4	5	6

Today: 29/8/2014

view\_product\_sales\_price\_report

Product Name :

Product Code :

	Product Name	Product Code	Category	Sale Amount	Sale Price	Sale Date
*						
*						
*						
*						
*						
*						
*						

View Print Cancel

*the system users can select the product name or product code through the automatic selection structure which is more convenient and friendly to users*

## Billing Screen :

Get Fresh Food

Date : 23/08/2014

Time : 19:40:20 A.M.

Scan the products one by one

X

DELETE

Product name	Product name	weight	Qty	Price

Total

SG\$ 30.50

Discount

SG\$5.00

Collect your change of SG\$7 !!!

VAT

2%

TOTAL AMOUNT

SG\$28.70

Print Bill

CASH

☐

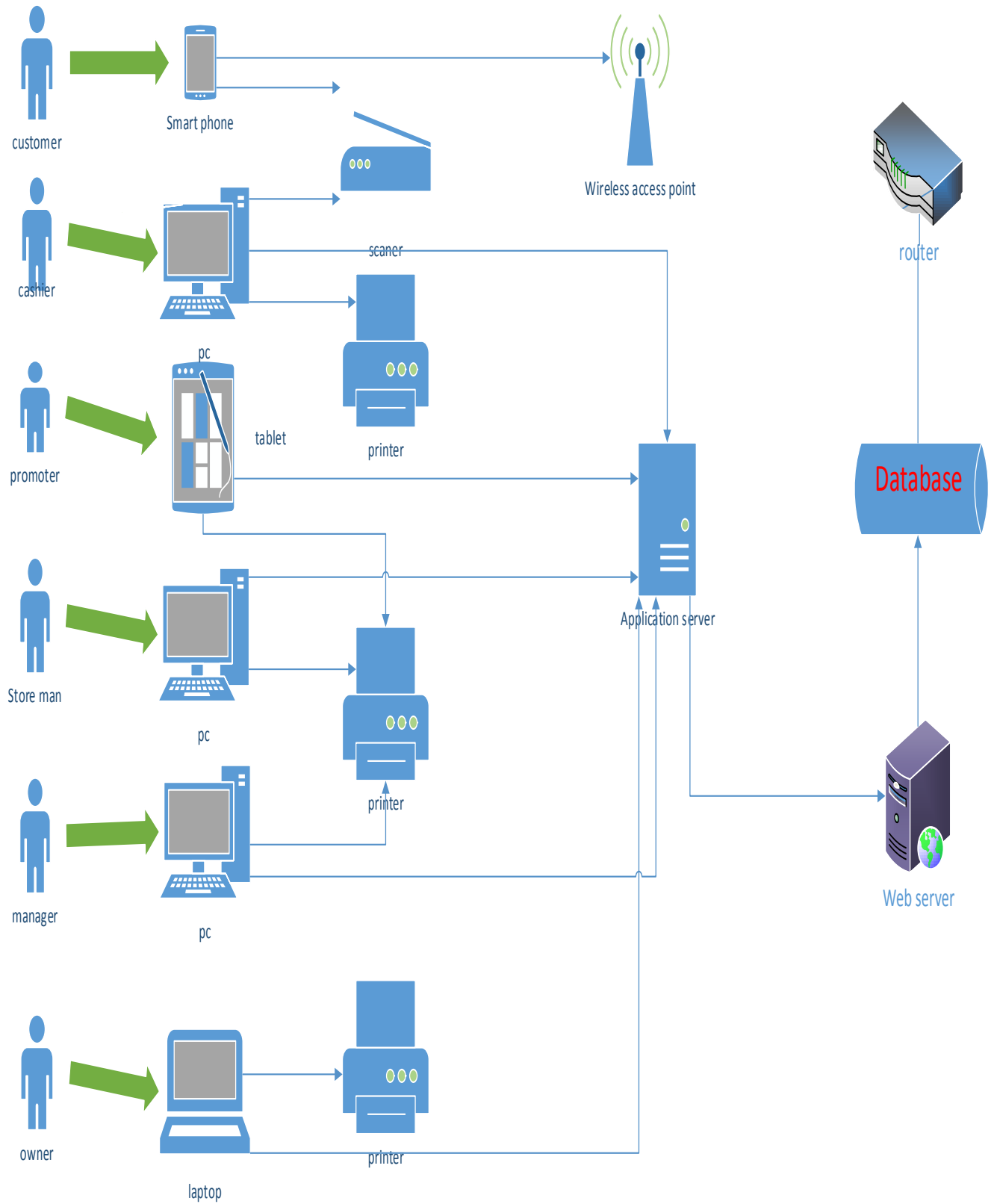
CREDIT/DEBIT

☐

Make Payment

## 5. NON FUNCTIONAL REQUIREMENT :

### 5.1. SYSTEM ARCHITECTURE :



## 5.2. SYSTEM PERFORMANCE REQUIREMENTS :

**Data Volume Table :**

Entity Class	Source Document	Retention Period	Target Volume
inventory-details	Inventory Record	5 years	5yrx4
products-form	Product Form	1 years	28x1yr
purchase-return-details	Product Form	1 year	28x1yr
material-receipt-details	Purchase record	6 months	6X4 months
purchase-invoice-details	Purchase record	6 months	6x4 months
sales-return-details	Sale record	3 years	8x3yr
sales-invoice-details	Sale record	3 years	8x3yr
purchase-order-details	Sale record	3 years	8x3yr
items-on-display-details	Product form	1 year	28x1yr
user-credentials	User File	2 years	20000x2yr
user-roles	User File	2 years	20000x2yr

### Description:

Purchase-return-details is the details about all the damage and expired food which store man return to supplier.

Material-receipt-details and Purchase-invoice-details is the details about lists and bills of product items which the supermarket purchase from supplier.

Sales-return-details is the details about the lists of products which customers return back to the supermarket.

## User Volume Table :

User Group	Country/Location/Count	Remarks
Customer	S'pore/Jurong West Central 2 #B1-09 Jurong Point Shopping Centre,1flr/20000 per day S'pore/#01-08, 10 Bukit Batok Central,1 flr/15000 per day HK/Unit 9, G/F, Marina Tower, Aberdeen Marina Club, 8 Shum Wan Road 1 flr/10000 per day	Some customers need to access the system when they pay for the products.
Promoter	S'pore/Jurong West Central 2 #B1-09 Jurong Point Shopping Centre,1 flr/20 S'pore/#01-08, 10 Bukit Batok Central,1 flr/18 HK/ Unit 9, G/F, Marina Tower, Aberdeen Marina Club, 8 Shum Wan Road 1 flr/15	Promoters are stationed at the shelf,everyday need to access the system.
Cashier	S'pore/Jurong West Central 2 #B1-09 Jurong Point Shopping Centre,1 flr/15 S'pore/#01-08, 10 Bukit Batok Central,1 flr/13 HK/ Unit 9, G/F, Marina Tower, Aberdeen Marina Club, 8 Shum Wan Road 1 flr/10	Cashiersneed to access the system everyday,they are office bounded,andthey should be able to use the system at the client location and at the company office.
Store man	S'pore/Jurong West Central 2 #B1-09 Jurong Point Shopping Centre,1 flr/8 S'pore/#01-08, 10 Bukit Batok Central,1 flr/7 HK/ Unit 9, G/F, Marina Tower, Aberdeen Marina Club, 8 Shum Wan Road 1 flr/5	Store men are stationed at storehouse,everydayneedsto access the system.
Branch manager	S'pore/Jurong West Central 2 #B1-09 Jurong Point Shopping Centre,1 flr/2 S'pore/#01-08, 10 Bukit Batok Central,1 flr/1 HK/ Unit 9, G/F, Marina Tower, Aberdeen Marina Club, 8 Shum Wan Road 2flr/1	Branch managers are stationed at the office,everydayneedsto access the system.
Owner	S'pore/Jurong West Central 2 #B1-09 Jurong Point Shopping Centre,5flr/1	Owner is stationed at the office,sometimes need to access the system.



## Business Transaction volume table :

Business Transaction	Business Criticality	No. of user	Txn iformation	concurrently Important Activities
check for low running products on display	critical	10	20 per day per staff	N/A
check for expired products on display	critical	10	20 per day per staff	N/A
create sales receipt	critical	3	1 per week per staff	N/A
create/update/view/delete material receipt	moderate	2	1 per week per staff	N/A
create/update/view/delete purchase invoice	moderate	2	1 per week per staff	N/A
create/update/view/delete purchase order	moderate	2	1 per week per staff	N/A
create/update/view/delete purchase return	low	2	1 per month per staff	N/A
price report	low	1	1 per month	N/A
view sales report	moderate	1	1 per month	N/A
view weekly sales details	moderate	1	1 per week	N/A
view daily sales details	critical	1	1 per day	N/A
classify products	moderate	1	1 per week	N/A
add a product to product form	low	1	1 per month	N/A
delete a product from product form	low	1	1 per month	N/A
view product form	low	1	1 per month	N/A
update product form	low	1	1 per month	N/A

### 5.3. SECURITY REQUIREMENTS :

#### Security Requirement from Data Point of View

User Role ( actor ) Data ( Entity Class )	Customer	Cashier	Promoter	Store Man	Branch Manager	Owner
User_Roles	-	-	-	-	c,u,r,d	c,u,r,d
User_Credentials	-	-	-	-	c,u,r,d	c,u,r,d
Inventory_Details	u	u	r	c,u,r	c,u,r,d	c,u,r,d
Products_Form	r	r	u,r	c,u,r	c,u,r,d	c,u,r,d
Purchase_Order_Details	-	-	-	c,u,r,d	c,u,r,d	c,u,r,d
Purchase_Invoice_Details	-	-	-	c,u,r,d	c,u,r,d	c,u,r,d
Purchase_Return_Details	-	-	-	c,u,r,d	c,u,r,d	c,u,r,d
Material_Receipt_Details	-	-	-	c,u,r,d	c,u,r,d	c,u,r,d
Sales_Invoice_Details	-	-	-	-	c,u,r,d	c,u,r,d
Sales_Return_Details	-	-	-	-	c,u,r,d	c,u,r,d
Items_on_Display_Details	-	-	u,r	c,u,r	c,u,r,d	c,u,r,d

## Security Requirement from Use Case Point of View

User Role ( actor ) Biz Txn (Use Case)	Customer	Cashier	Promoter	Store Man	Branch Manager	Owner
Check for low running products on display			x(m)			
Check expired product lists			x(m)	x(m)	x	
Update expired product lists			x(m)	x	x	
Create/Update/Delete purchase order				x(m)	x	x
Create/Update/Delete material receipt				x(m)	x	x
Create/Update/View/Delete purchase return				x(m)	x	x
Create/Update/View/Delete purchase invoice				x(m)	x	x
Create Sales Receipts	x(m)	x(m)				
Update Product Form					x(m)	x
Add a product to product form					x(m)	x
Delete a product from product form					x(m)	x
View Product Form				x	x(m)	x
View Weekly Sales Report					x(m)	x
View Daily Sales Report					x(m)	x
Classify Products					x(m)	x
View Product Sales Price Report					x	x(m)
View Sales Report					x	x(m)

## **5.4. RELIABILITY REQUIREMENTS :**

### **System availability Requirement**

- **Operation Time**
  - 24 hours a day and 7 days a week
  - Not more than 10 minutes downtime
- **Hardware**
  - Recovery duration-not more than half an hour
  - Data concurrency-not more than an 2 hours old
- **Disaster Recovery**
  - Maximum 24 hours down time
  - Database backup-every 2 hours