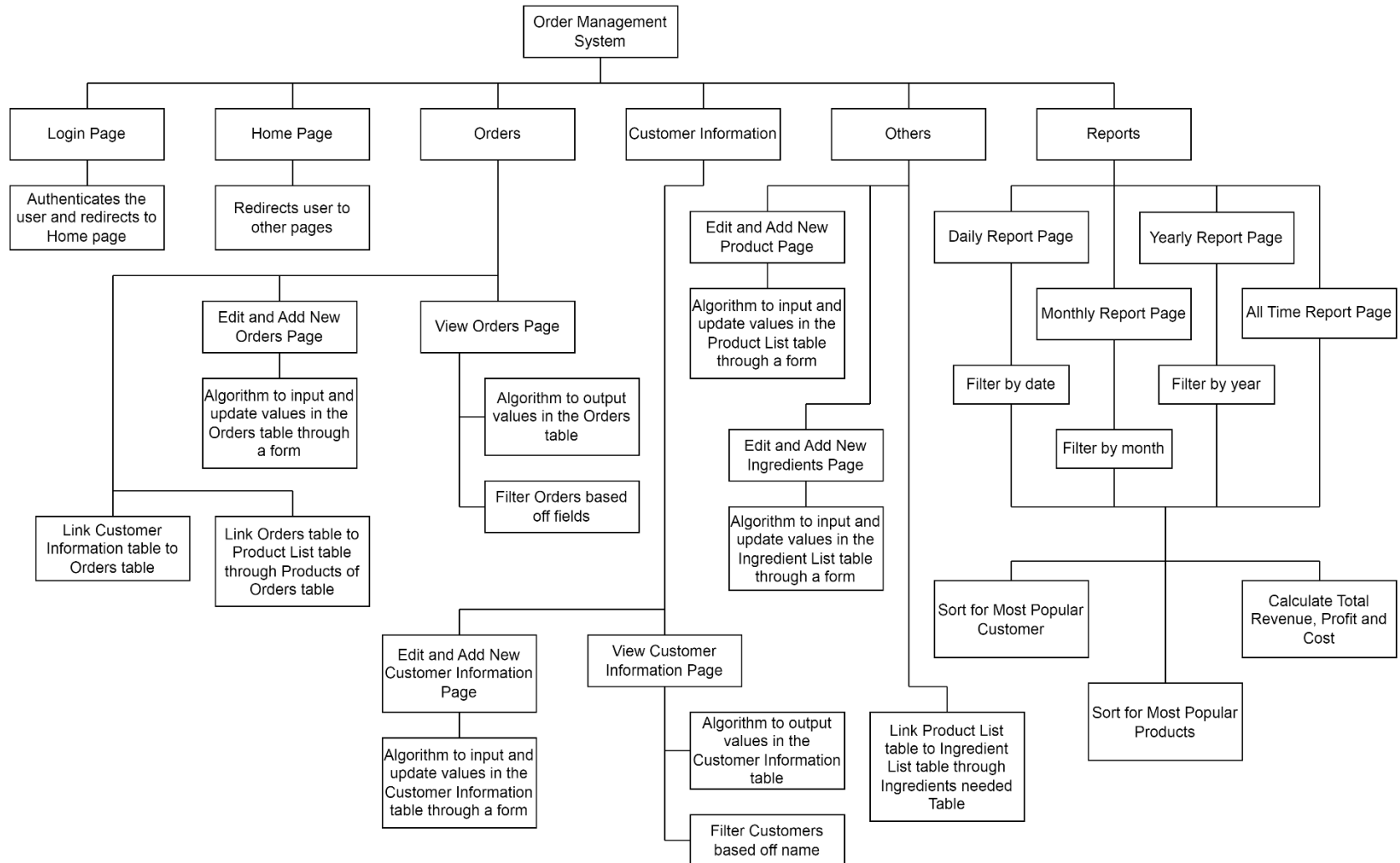


## Criterion B: Design overview

### Top down diagram



## **Module Description**

### **1. Login Page**

This page authenticates the user with the entering of a username and password, which enhances the security and privacy of information.

### **2. Home Page**

It displays the buttons which redirects the user to the other pages of the program for easy navigation.

### **3. Edit Orders Page**

The page allows users to edit orders and add new ones by entering the various fields of the order including the customer and products ordered.

### **4. View Orders Page**

Orders are shown in descending order and supports filtering based off features such as customers. It also permits the viewing of orders in order of dates to be shipped, so that tracking of orders is made more efficient.

### **5. Edit Customer Information Page**

This page lets the user edit and add new customers into the database by entering the customer's name, address, etc.

### **6. View Customer Information Page**

Each customer is presented with their respective attributes, which can be filtered according to their names.

## **7. Edit Products Page**

The page allows the user to edit and add new products including the number of ingredients required as well as its price, whilst acting as a product information page.

## **8. Edit Ingredients Page**

It permits the editing and adding of new ingredients to be used in each product, containing its cost.

## **9. Reports Page**

It presents the buttons that redirect to the more specific report pages.

## **10. Daily Report Page**

This page reveals a report of the top 5 customers and products of a particular date.

## **11. Monthly Report Page**

This page reveals a report of the top 5 customers and products of a particular month of a specified year.

## **12. Yearly Report Page**

This page reveals a report of the top 5 customers and products of a particular year.

## **13. All Time Report Page**

This page reveals a report of the top 5 customers and products of all time.

## Input and output designs


### 1. Login Page



Username:

Password:

### 2. Home Page



Orders	Customer Information	Others
Edit Orders	Edit Customer Information	Edit Products
View Orders	View Customer Information	Edit Ingredients
Reports	Change Username and/or Password	Logout

### 3. Edit Orders Page

Order ID: 1

Date of Order: 15/01/2023

Date to be Shipped:    /    /

Name:

☒ Ready to be shipped?

☒ Paid?

Status:

Product to be Deleted:

Product_Name	Amount
Product_Name	1

#### 4. View Orders Page

Order ID: 1	<input type="button" value="Search by ID"/>				
Name: Customer_Name					
Date of Order: 15/01/2023					
Date to be Shipped: 22/03/2023					
Total Price: Rp. 50000					
<div><div><table><tr><th>Product_Name</th><th>Amount</th></tr><tr><td>Product_Name</td><td>1</td></tr></table></div></div>		Product_Name	Amount	Product_Name	1
Product_Name	Amount				
Product_Name	1				
<div><div><div>Filter:</div><div><input type="checkbox"/> Ready to be shipped?</div><div><input type="checkbox"/> Sort by Date?</div><div><input type="checkbox"/> Paid?</div><div>Status: <input type="text"/></div><div>Customer Name: <input type="text"/></div><div><input type="button" value="Clear"/></div></div></div>					

## 5. Edit Customer Information Page

Customer ID:	1	<input type="button" value="Search by ID"/>	<input type="button" value="Save"/>
Customer Name:	<input type="text" value="Customer_Name"/>		<input type="button" value="New Customer"/>
Phone Number:	<input type="text" value="08123456789"/>		<input type="button" value="Delete Customer"/>
Address:	<input type="text" value="Address"/>		
<input type="button" value="Previous"/>		<input type="button" value="Next"/>	<input type="button" value="Back to Home"/>

## 6. View Customer Information Page

Customer ID:	1	<input type="button" value="Search by ID"/>	<div>Search Name: <input type="text"/></div> <div><input type="button" value="Search"/></div>
Customer Name:	Customer_Name		
Phone Number:	08123456789		
Address:	Address		
<input type="button" value="Previous"/>		<input type="button" value="Next"/>	<input type="button" value="Back to Home"/>

7. Edit Products Page

Product ID: 1

Search by ID

Save

Name: Product\_Name

New Product

Price: Rp. 50000

Delete Product

Cost: Rp. 10

Ingredient

1

Search by ID

Ingredient to be Deleted:

Search by ID

Ingredient_Name	Amount_Needed
Ingredient_Name	1

Delete Ingredient

Previous

Next

Back to Home

8. Edit Ingredients Page

Ingredient ID: 1

New Ingredient

Name: Ingredient\_Ni

Delete Ingredient

Cost: Rp. 10

Save

Previous

Next

Back to Home



## 9. Reports Page



Daily Report

Monthly Report

Yearly Report

All Time Report

Back To Home

## 10. Daily Report Page

Daily Report

Top Customers of the Day	Top Selling Products of the Day

Total Revenue: Rp.

Total Cost: Rp.

Total Profits: Rp.

Date:

▼

Back to Reports

11. Monthly Report Page

Monthly Report

Top Customers of the Month	Top Selling Products of the Month

Total Revenue: Rp.

Total Cost: Rp.

Total Profits: Rp.

Month:

Year:

Back to Reports

12. Yearly Report Page

Yearly Report

Top Customers of the Year	Top Selling Products of the Year

Total Revenue: Rp.

Total Cost: Rp.

Total Profits: Rp.

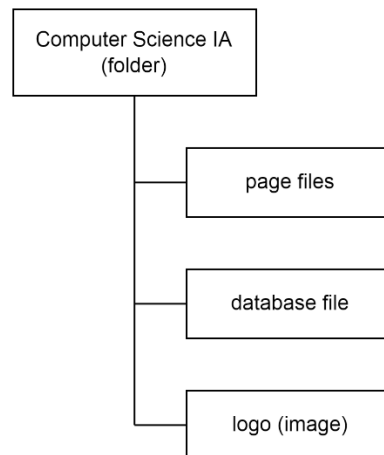
Year:

Back to Reports

### 13.All Time Report Page

All Time Report	
Top Customers of All Time	Top Selling Products of All Time
1. Customer_Name 2. 3. 4. 5.	1. Product_Name 2. 3. 4. 5.
Total Revenue: Rp. 50000	Total Cost: Rp. 10
Total Profits: Rp. 49990	<a href="#">Back to Reports</a>

### Folder Structure



## Database Structure

### Login

Fields	Data Type	Description
Username	Short Text	-
Password	Short Text	-

### Customer Information

Fields	Data Type	Description
Customer ID	Number	Incremented automatically
Customer Name	Short Text	Entered manually
Address	Short Text	Entered manually
Phone Number	Number	Entered manually

### Product List

Fields	Data Type	Description
Product ID	Number	Incremented automatically
Product Name	Short Text	Entered manually
Price	Currency	Entered manually

### Ingredient List

Fields	Data Type	Description
Ingredient ID	Number	Incremented automatically
Ingredient Name	Short Text	Entered manually
Cost	Currency	Entered manually

## Orders

Fields	Data Type	Description
Order ID	AutoNumber	Automatically numbered
Customer ID	Number	-
Completed?	Yes/No	Entered manually through checkbox
Paid?	Yes/No	Entered manually through checkbox
Ready to be shipped?	Yes/No	Entered manually through checkbox
Date_of_Order	Date/Time	Set to <i>Today</i> at the time of order creation
Date_to_be_Shipped	Date/Time	Entered manually

## Ingredients Needed (Linked Table)

Fields	Data Type	Description
Ingredient ID	Number	-
Product ID	Number	-
Amount Needed	Number	Entered manually

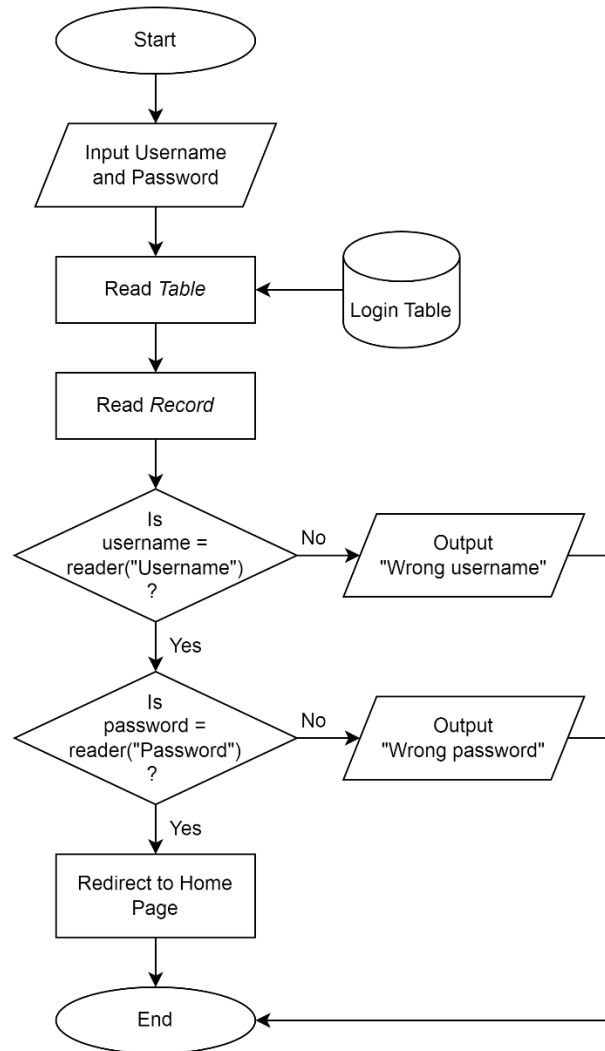
### Products of Orders (Linked Table)

Fields	Data Type	Description
Order ID	Number	-
Product ID	Number	-
Amount	Number	Entered manually

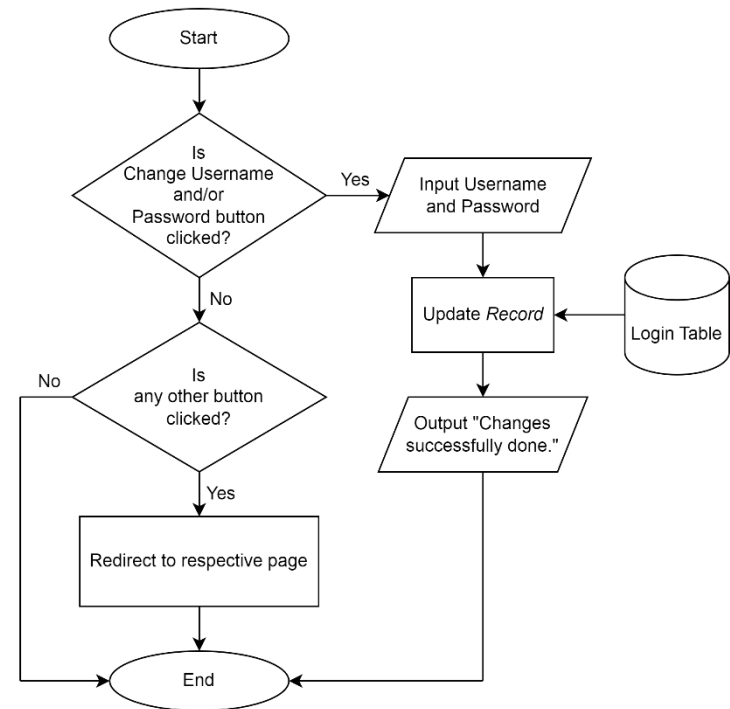
Legend	
	Primary key
	Foreign key

## Flowchart

### 1. Login Page

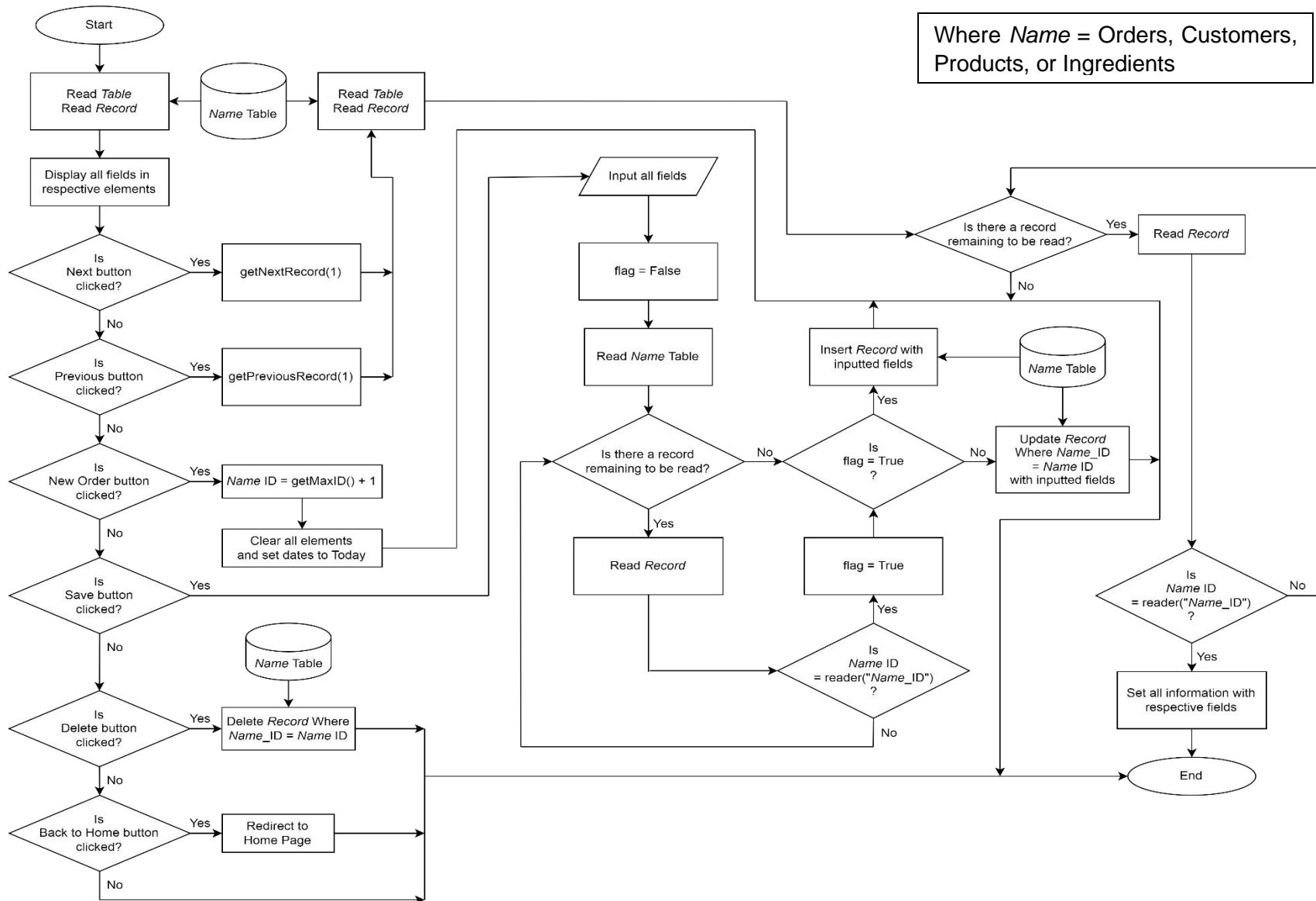


### 2. Home Page



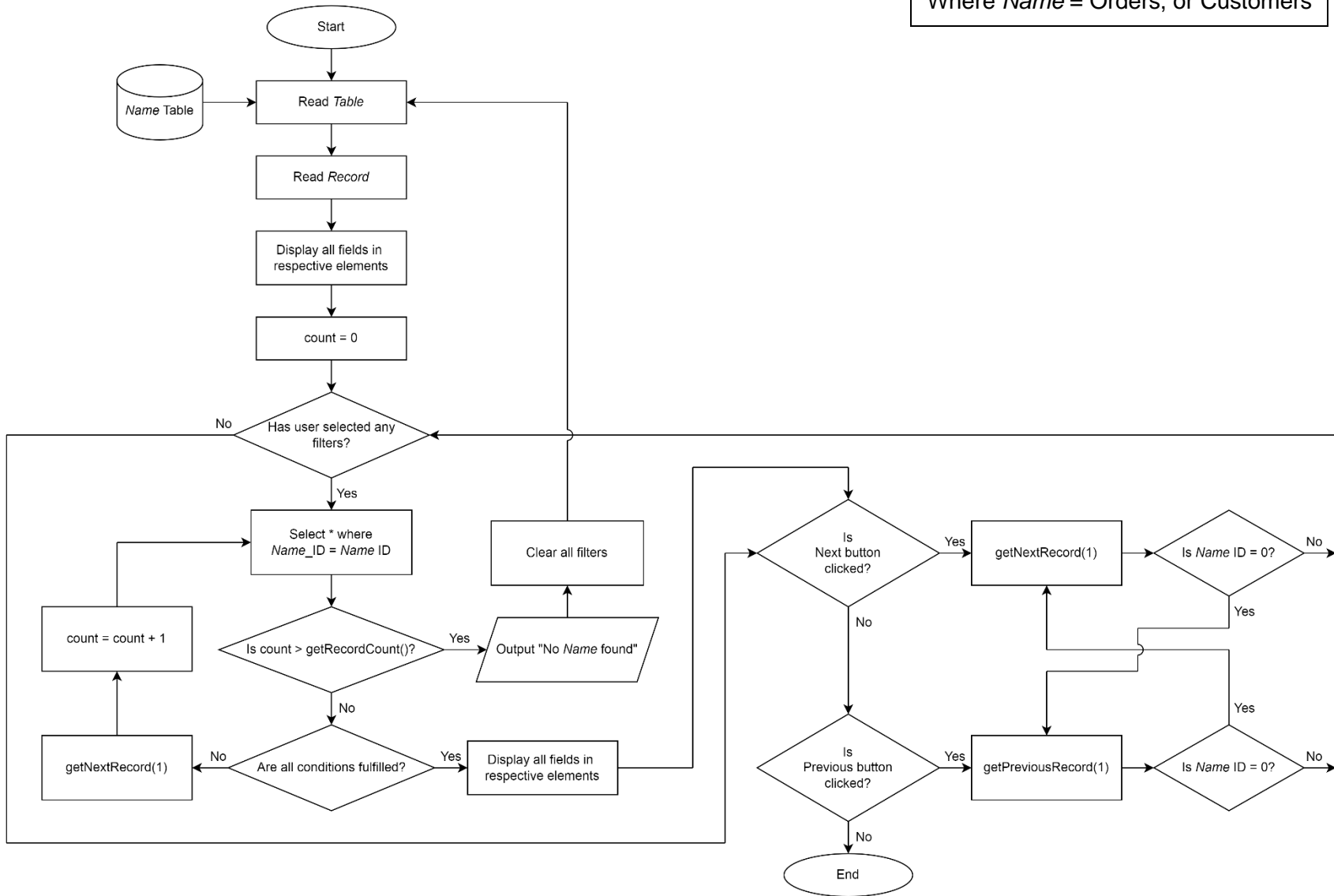


### 3. Edit Orders Page, 5. Edit Customer Information Page, 7. Edit Products Page, 8. Edit Ingredients Page

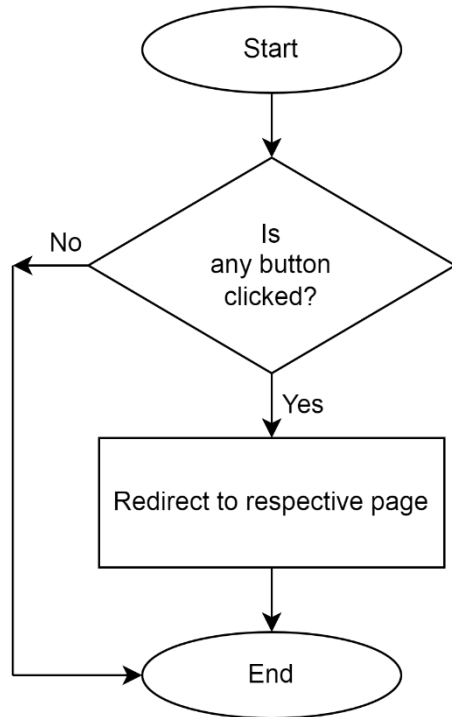


#### 4. View Orders Page, 6. View Customer Information Page

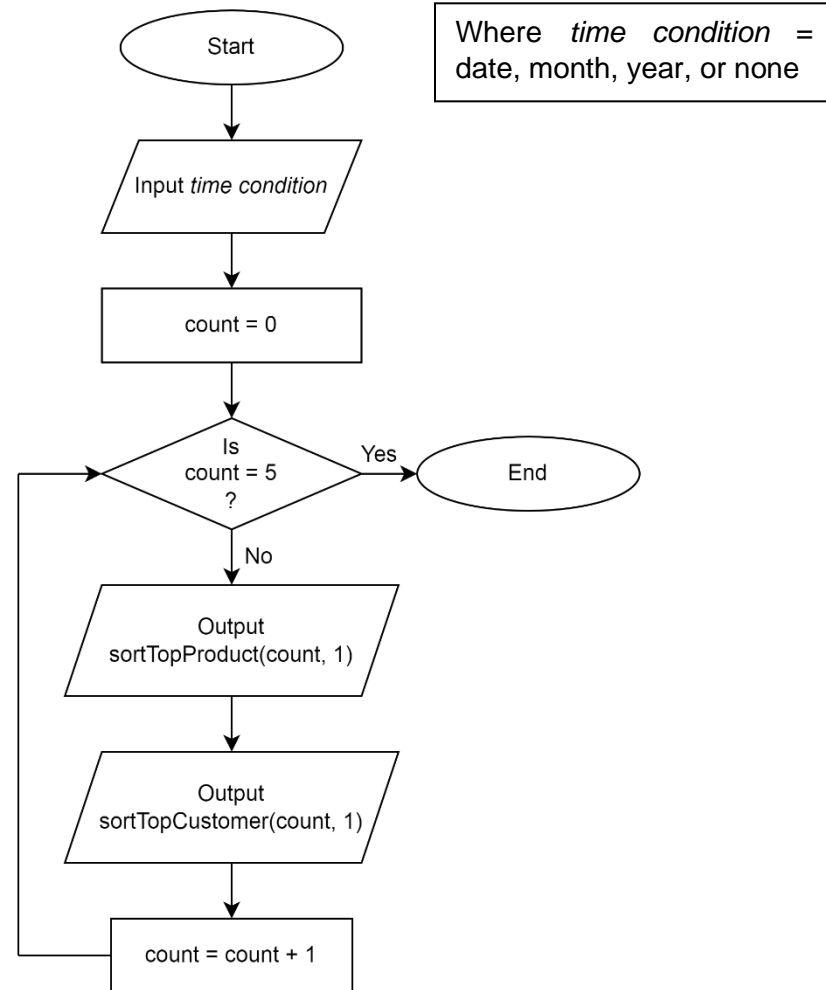
Where *Name* = Orders, or Customers



## 9. Reports Page

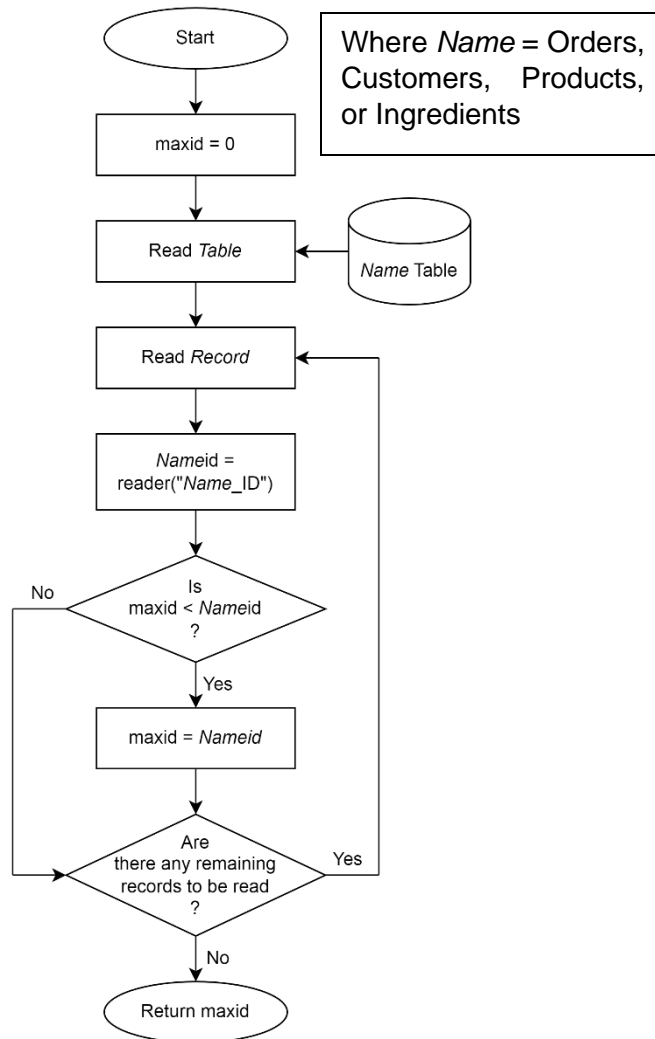


## 10. Daily Report Page, 11. Monthly Report Page, 12. Yearly Report Page, 13. All Time Report Page

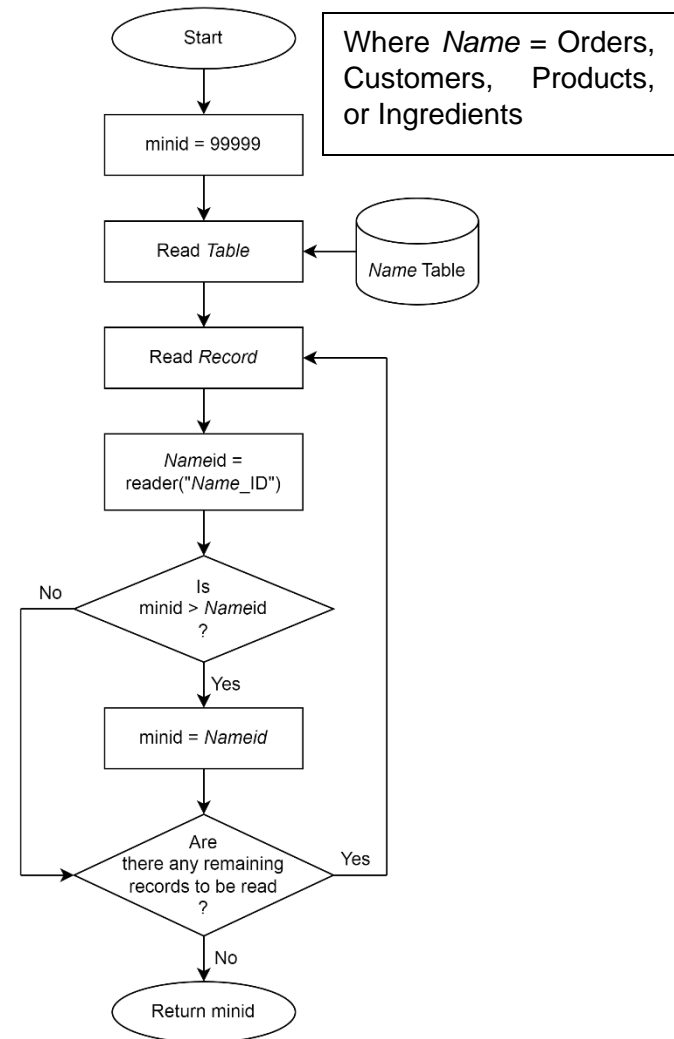


## Functions

### getMaxID()

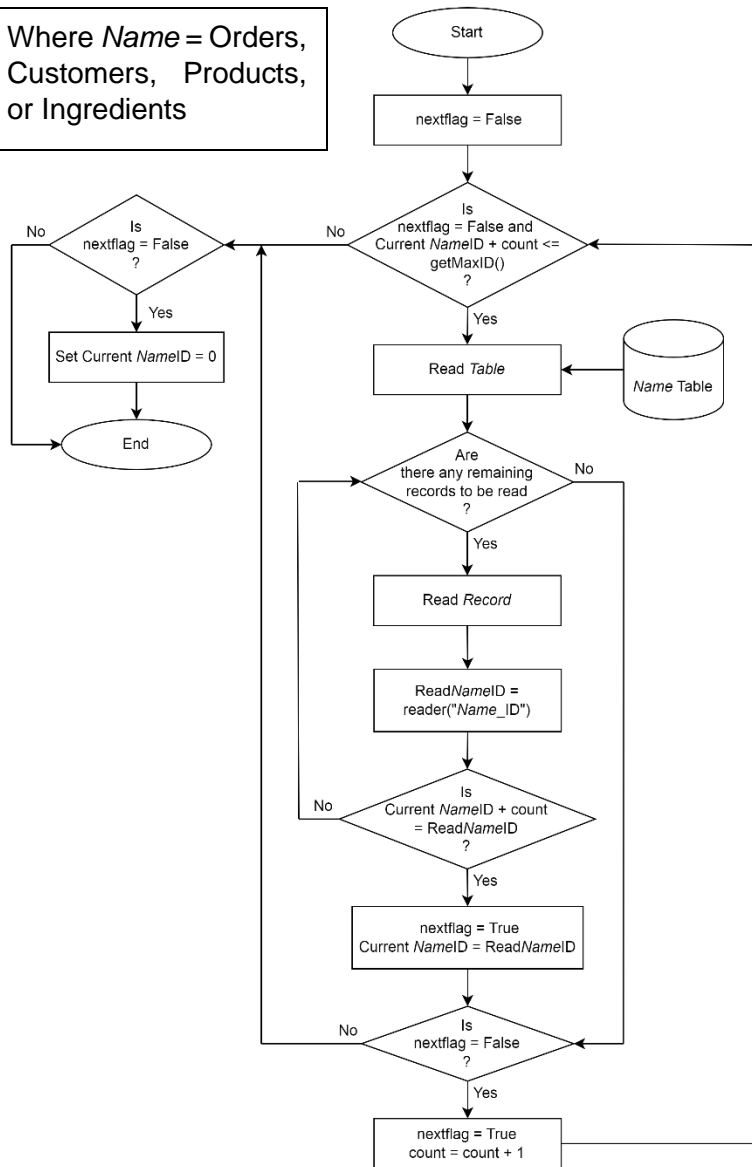


### getMinID()



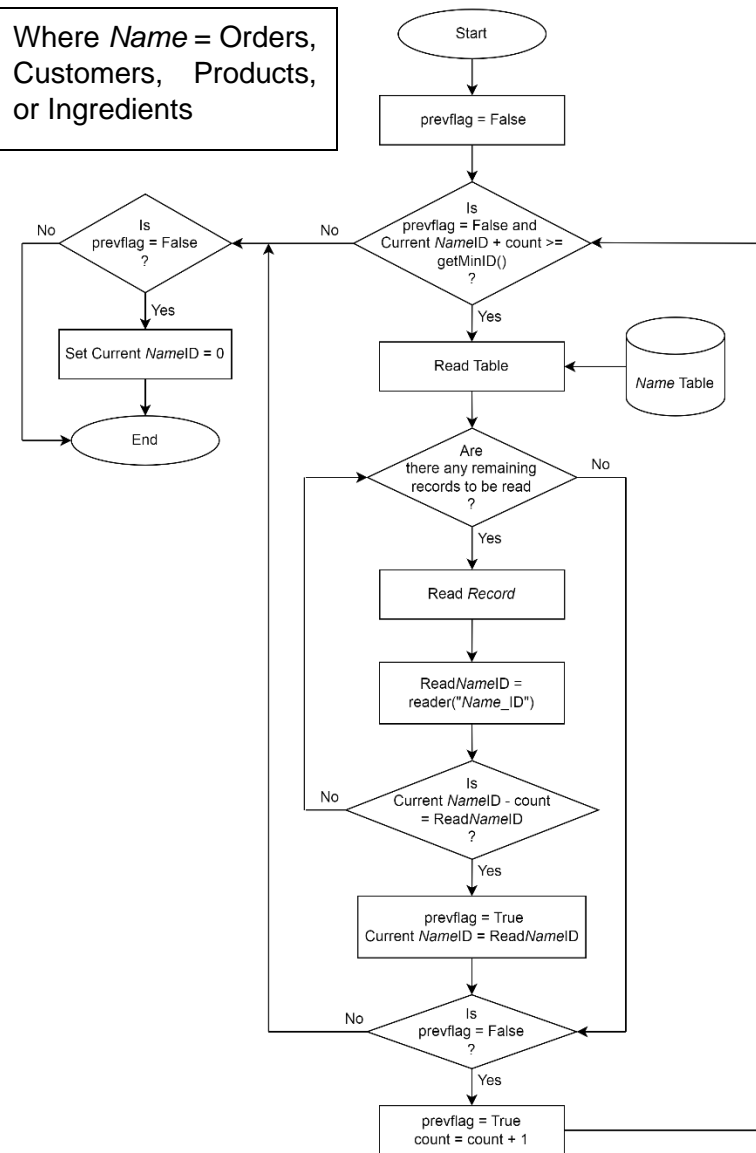
## getNextRecord(count)

Where *Name* = Orders,  
Customers, Products,  
or Ingredients

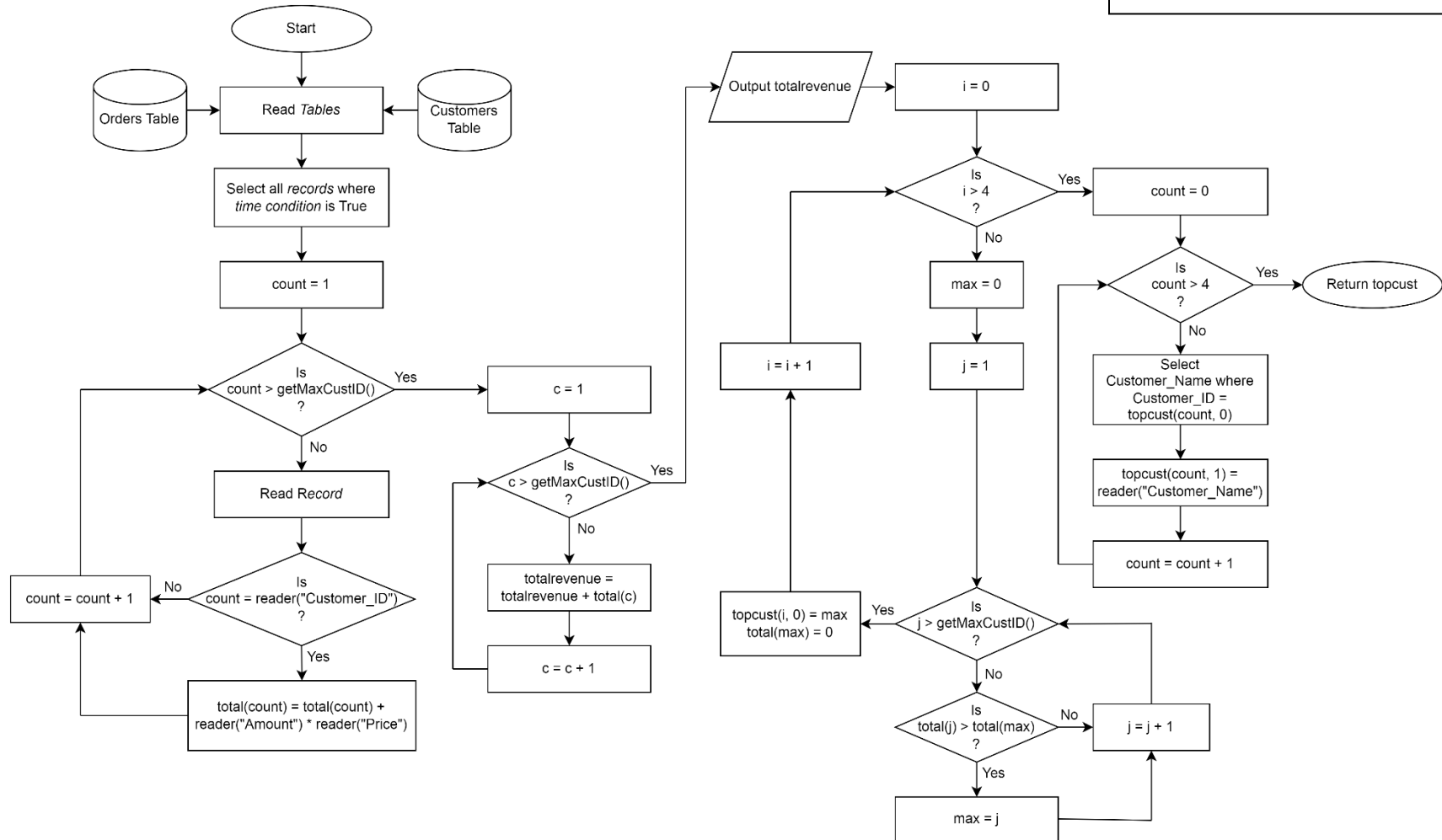


## getPreviousRecord(count)

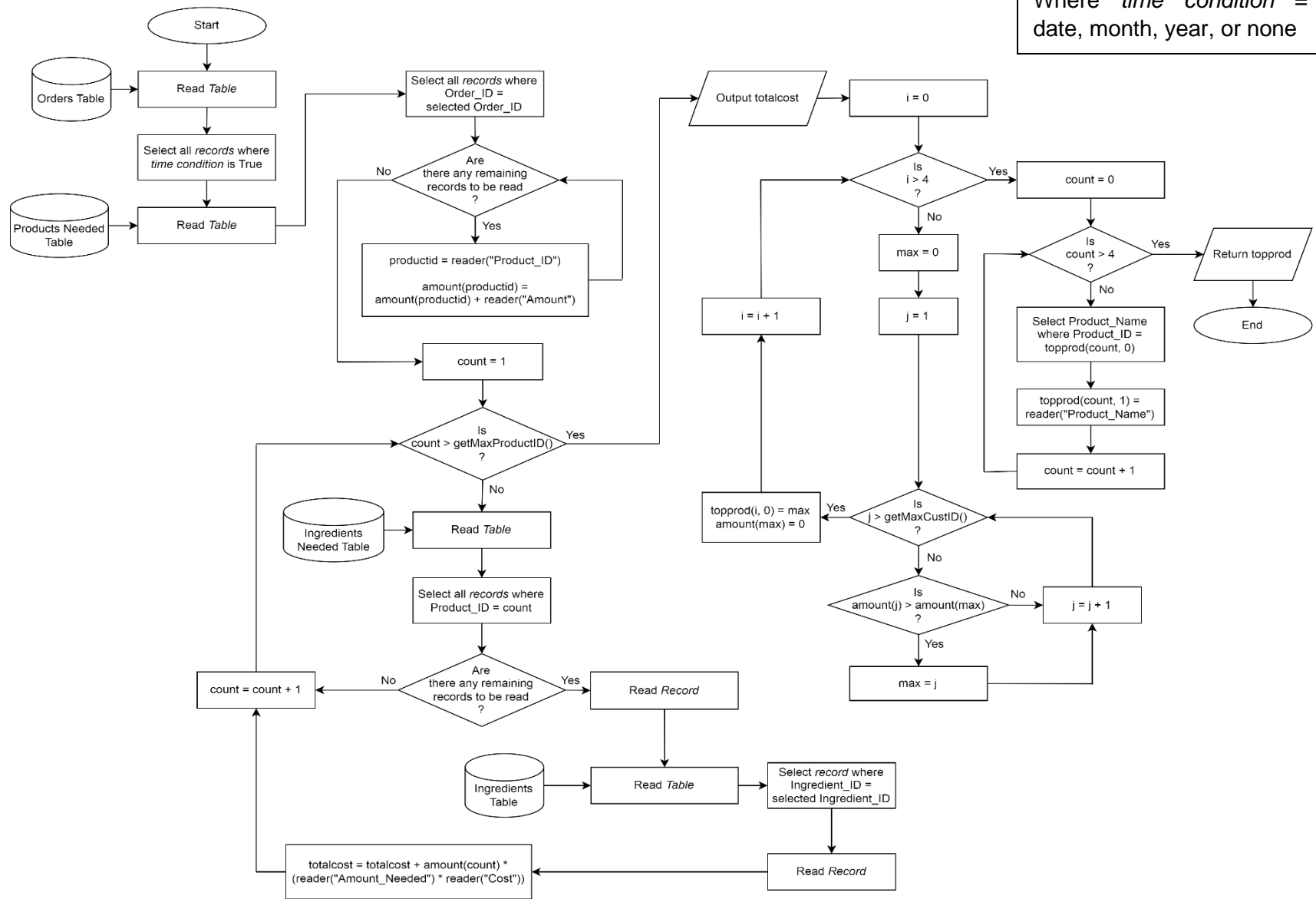
Where *Name* = Orders,  
Customers, Products,  
or Ingredients



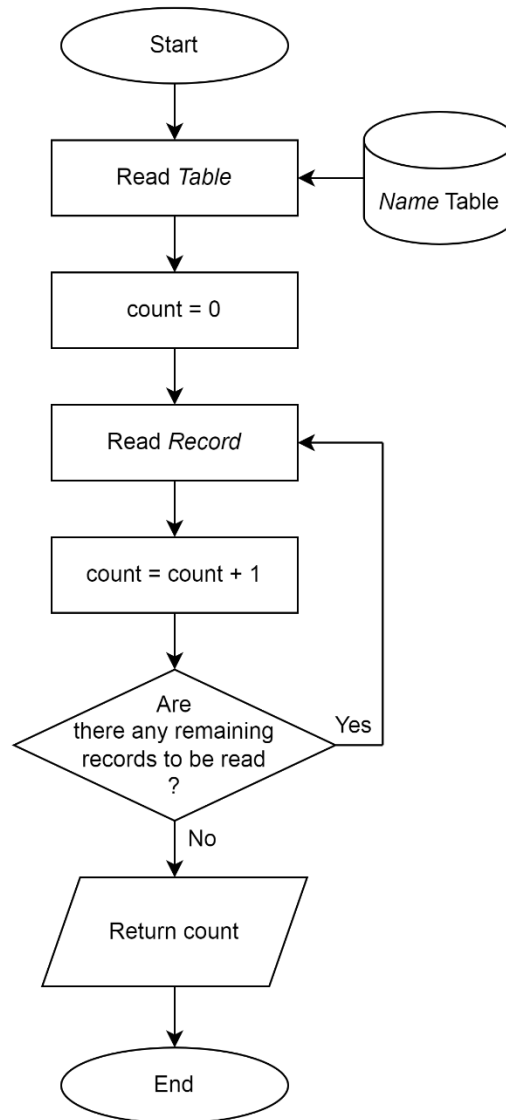
## sortTopCustomer()



## sortTopProduct()



**getRecordCount()**



Where *Name* = Orders,  
or Customers



## **Extensibility**

### **1. Meaningful Identifiers**

Variables and functions are given meaningful names in order for easy understanding of what each variable and function is meant to store and do.

### **2. Modularity**

The application functions are divided into separate pages so that the different operations of the program are clear and focused. This allows for easy recognition of the various purposes of the application.

### **3. Flowcharts**

Flowcharts provide visual representations of code to aid in the understanding of future developers of the logical aspects of the program.

### **4. Abstraction**

The creation and use of multiple functions facilitate abstraction which allows future developers to simply make use of the functions and methods without understanding the logic behind them, placing focus on the problem at hand, as well as reduces the complexity of the program.

### **5. Database Structure and Data Dictionary**

Providing the database structure allows for better understanding of the relationships between the data involved. The data dictionary allows future developers to identify the properties of such data, including its data type and how it is to be provided.

## Test Plan

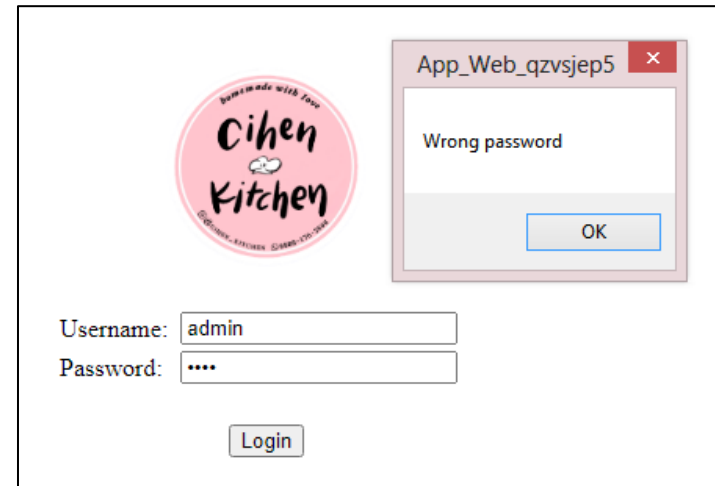
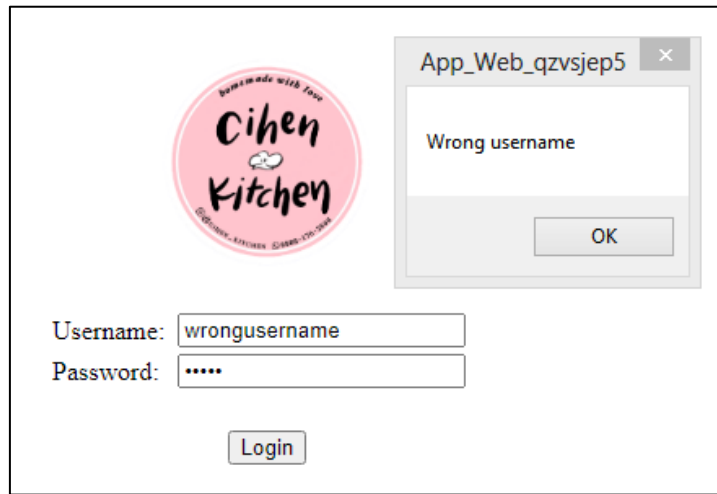
No.	Description	Purpose	Expected Result	Actual Outcome as expectations?
1	Login Page	Normal data	User is given access	Yes
2	Login Page	Abnormal data	An error message is shown	Yes
3	Edit Orders	Update data	Displays success message and the database is updated	Yes
4	Add New Order	Add new data	Displays success message and a new record is added to the database	Yes
5	Delete Existing Order	Delete data	Displays success message and record has been deleted from the database	Yes
6	Filter Order	Filter data by attribute values	Data is filtered correctly	Yes
7	No Filtered Orders Found	Indicates absence of data with criteria of filter	An error message is shown	Yes
8	Sort Order	Sorts data by date	Orders are shown in ascending order of date to be shipped	Yes
9	Edit Existing Customer Information	Update data	Displays success message and the database is updated	Yes

10	Add New Customer Information	Add new data	Displays success message and a new record is added to the database	Yes
11	Delete Existing Customer Information	Delete data	Displays success message and record has been deleted from the database	Yes
12	Filter Customer Information	Filter data by name	Data is filtered correctly	Yes
13	No Filtered Customer Information Found	Indicates absence of data with criteria of filter	An error message is shown	Yes
14	Edit Existing Product	Update data	Displays success message and the database is updated	Yes
15	Add New Product	Add new data	Displays success message and a new record is added to the database	Yes
16	Delete Existing Product	Delete data	Displays success message and record has been deleted from the database	Yes
17	Cost of Product	Calculates cost of each product as per its ingredients	Displays correct value for cost of product	Yes
18	Edit Existing Ingredient	Update data	Displays success message and the database is updated	Yes
19	Add New Ingredient	Add new data	Displays success message and a new record is added to the database	Yes

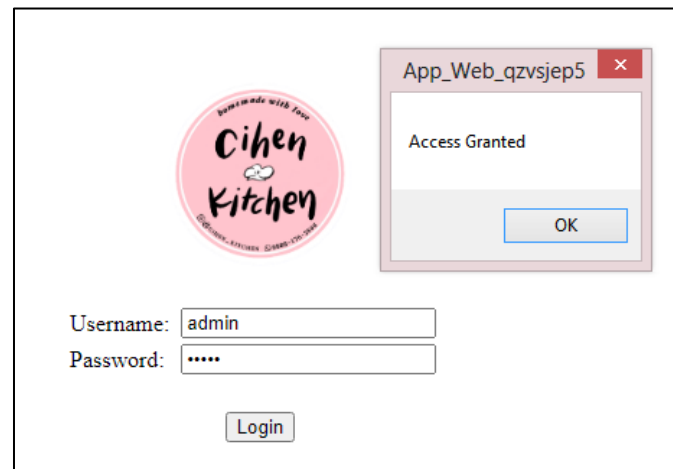
20	Delete Existing Ingredient	Delete data	Displays success message and record has been deleted from the database	Yes
21	Top 5 Customers Products (daily, monthly, yearly, all time)	Sorts products according to its sales	Product list is displayed to be correctly sorted	Yes
22	Top 5 Customers (daily, monthly, yearly, all time)	Sorts customers according to purchases	Customers are displayed to be correctly sorted	Yes
23	Sales Information (daily, monthly, yearly, all time)	Calculates for total revenue, profit and cost	Correct values are displayed	Yes

## Test Evidence

1.



2.



3.

Order ID: 5

Date of Order: 03/03/2023

Date to be Shipped: 4

Name:

1

**Product to be Deleted:**

☒ Paid?

Status:

Product_Name	Amount
Pancake	1
Nuggets	2

App\_Web\_wbgzpihk

Changes successfully saved.

Orders							
	Order_ID ▾	Customer_ID ▾	Completed? ▾	Paid? ▾	Ready_to_be_shipped? ▾	Date_of_Order ▾	Date_to_be_Shipped ▾
+	1	2	✓	✓	✓	03/03/2023	05/03/2023
+	2	1	□	□	✓	03/03/2023	05/03/2023
+	3	4	□	□	□	03/03/2023	04/03/2023
+	4	3	□	✓	□	03/03/2023	04/03/2023
+	5	5	✓	✓	✓	03/03/2023	04/03/2023

4.

Order ID: 5

Search by ID

Date of Order: 04/03/2023

Date to be Shipped: 5

Name: Beatrice

Search

Nuggets
3

Save

Cancel

App\_Web\_wbgzpihk

New order successfully added.

OK

☐ Paid?

Status: Ongoing

Previous

Next

Back to Home

Orders							
	Order_ID ▾	Customer_ID ▾	Completed? ▾	Paid? ▾	Ready_to_be_shipped? ▾	Date_of_Order ▾	Date_to_be_Shipped ▾
+	1	2	✓	✓	✓	03/03/2023	05/03/2023
+	2	1	□	□	✓	03/03/2023	05/03/2023
+	3	4	□	□	□	03/03/2023	04/03/2023
+	4	3	□	✓	□	03/03/2023	04/03/2023
+	5	2	□	□	✓	04/03/2023	05/03/2023

5.

Order ID: 5

Search by ID

Date of Order: 03/03/2023

Date to be Shipped: 4

Name: Derrick

Search

Pancake
1

Search

Product_Name	Amount
Pancake	1
Nuggets	2

☒ Paid?

Status: Completed

Previous

Next

Save

New Order

Delete Order

Product to be Deleted:

Search by ID

Delete Product

Back to Home

App\_Web\_wbgzpihk

Order successfully deleted.

OK

Orders								
	Order_ID	Customer_ID	Completed?	Paid?	Ready_to_be_shipped?	Date_of_Order	Date_to_be_Shipped	Click to Add
+	1	2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	03/03/2023	05/03/2023	
+	2	1	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	03/03/2023	05/03/2023	
+	3	4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	03/03/2023	04/03/2023	
+	4	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	03/03/2023	04/03/2023	
+	#Deleted	#Deleted	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	#Deleted	#Deleted	



6.

Order ID: 4

Search by ID

Name: Bianca

Date of Order: 03/03/2023

Date to be Shipped: 04/03/2023

Total Price: Rp. 45000

Product_Name	Amount
Dumplings	3

Previous

Next

Back to Home

Filter:

☐ Ready to be shipped?

☐ Sort by Date?

☒ Paid?

Status: 

Ongoing

Customer Name: 

Bianca

Clear

Status: Ongoing

Paid?: Yes

Ready to be shipped?: No

7.

Order ID: 5

Search by ID

Name: Beatrice

Date of Order: 04/03/2023

Date to be Shipped: 05/03/2023

Total Price: Rp. 30000

Product_Name	Amount
Nuggets	3

Previous

Next

Back to Home

Filter:

☐ Ready to be shipped?

☐ Sort by Date?

☐ Paid?

Status:

Customer Name: 

Clear

App\_Web\_5ghphlce

No orders found.

OK

8.

1<sup>st</sup> Customer displayed

Order ID: 3

Name: Carlos

Date of Order: 03/03/2023

Date to be Shipped: 04/03/2023

Total Price: Rp. 72000

Filter:  
☐ Ready to be shipped? ☒ Sort by Date?  
☐ Paid?

Status:

Customer Name:

Product_Name	Amount
Bread	4

Status: Ongoing

Paid?: No

Ready to be shipped?: No

2<sup>nd</sup> Customer displayed

Order ID: 2

Name: Agnes

Date of Order: 03/03/2023

Date to be Shipped: 05/03/2023

Total Price: Rp. 20000

Filter:  
☐ Ready to be shipped? ☒ Sort by Date?  
☐ Paid?

Status:

Customer Name:

Product_Name	Amount
Pancake	1

Status: Ongoing

Paid?: No

Ready to be shipped?: Yes

9.

Customer ID: 1 Search by ID

Customer Name: A

Phone Number: 1

Address: 1  
G  
L

Save

New Customer

Delete Customer

Previous Next

Back to Home

App\_Web\_qzvsjep5

Changes successfully saved.

OK

Customer Information				
	Customer_ID	Customer_Name	Address	Phone_Number
+	1	Agnes	17th Rose Str	12038923784
+	2	Beatrice	Muara Karan	32813719837
+	3	Bianca	Cemparalok	92744289479
+	4	Carlos	11th Mejis St	12197347327
+	5	Derrick	4th Pepperm	63272611098
+	6	Felice	15th Orchard	2128201013

10.

Customer ID: 6  
Customer Name: Felice  
Phone Number:  
Address:

Save

Cancel

Previous Next Back to Home

App\_Web\_qzvsjep5

New customer successfully added.

OK

Customer_Information				
	Customer_ID	Customer_Name	Address	Phone_Number
+	1	Agnes	17th Rose Str	12038923784
+	2	Beatrice	Muara Karan	32813719837
+	3	Bianca	Cemparalok	92744289479
+	4	Carlos	11th Mejis St	12197347327
+	5	Derrick	4th Pepperm	63272611098
+	6	Felice	15th Orchard	2128201012

11.

Customer ID: 6

Customer Name:

Phone Number:

Address:

App\_Web\_qzvsjep5

Customer successfully deleted.

Customer Information				
	Customer_ID	Customer_Name	Address	Phone_Number
+	1	Agnes	17th Rose Str	12038923784
+	2	Beatrice	Muara Karan	32813719837
+	3	Bianca	Cemparalok	92744289479
+	4	Carlos	11th Mejis St	12197347327
+	5	Derrick	4th Pepperm	63272611098
+	#Deleted	#Deleted	#Deleted	#Deleted

12.

Customer ID: 2

Search by ID

Search Name: Bea

Search

Customer Name: Beatrice

Phone Number: 32813719837

Address: Muara Karang  
Street Mutiara  
Residence,  
No.5 Jakarta

Previous

Next

Back to Home

13.

Customer ID: 2

Search by ID

Search Name: V

Search

Customer Name: Beatrice

Phone Number: 32813719837

Address: Muara Karang  
Street Mutiara  
Residence,  
No.5 Jakarta

Previous

Next

Back to Home

App\_Web\_5ghphlce

No customers found.

OK

14.

Product ID: 1

Name:

Price: Rp.

Cost: Rp. 194

to be Deleted:

Ingredient_Name	Amount_Needed
Egg	2
Flour	10

Product_List			
	Product_ID	Product_Name	Price
+	1	Cake	Rp40.000
+	2	Pancake	Rp20.000
+	3	Nuggets	Rp10.000
+	4	Dumplings	Rp15.000
+	5	Bread	Rp18.000
+	6	Fried Rice	Rp15.000

15.

Product ID: 7

Name: Cookies

Price: Rp. 24000

Cost: Rp. 0

Flour 10

Previous Next

Save

Cancel

Back to Home

App\_Web\_wbgzpihk

New product successfully added.

OK

Product_List			
	Product_ID	Product_Name	Price
+	1	Cake	Rp40.000
+	2	Pancake	Rp20.000
+	3	Nuggets	Rp10.000
+	4	Dumplings	Rp15.000
+	5	Bread	Rp18.000
+	6	Fried Rice	Rp15.000
+	7	Cookies	Rp24.000



16.

Product ID: 7

Name:

Price: Rp.

Cost: Rp. 180

to be Deleted:

Ingredient_Name	Amount_Needed
Flour	10

Product_List			
	Product_ID	Product_Name	Price
+	1	Cake	Rp40.000
+	2	Pancake	Rp20.000
+	3	Nuggets	Rp10.000
+	4	Dumplings	Rp15.000
+	5	Bread	Rp18.000
+	6	Fried Rice	Rp15.000
+	#Deleted	#Deleted	#Deleted

17.

Product ID: 2

Name:

Price: Rp.

Cost: Rp.

Ingredient_Name	Amount_Needed
Egg	1
Flour	6

Ingredient to be Deleted:

Ingredient_List			
	Ingredient_ID	Ingredient_	Cost
+	1	Chicken Breast	Rp25
+	2	Salt	Rp8
+	3	Egg	Rp7
+	4	Flour	Rp18
+	5	Rice	Rp10

18.

Ingredient ID: 1

Name:

Cost: Rp.

Previous

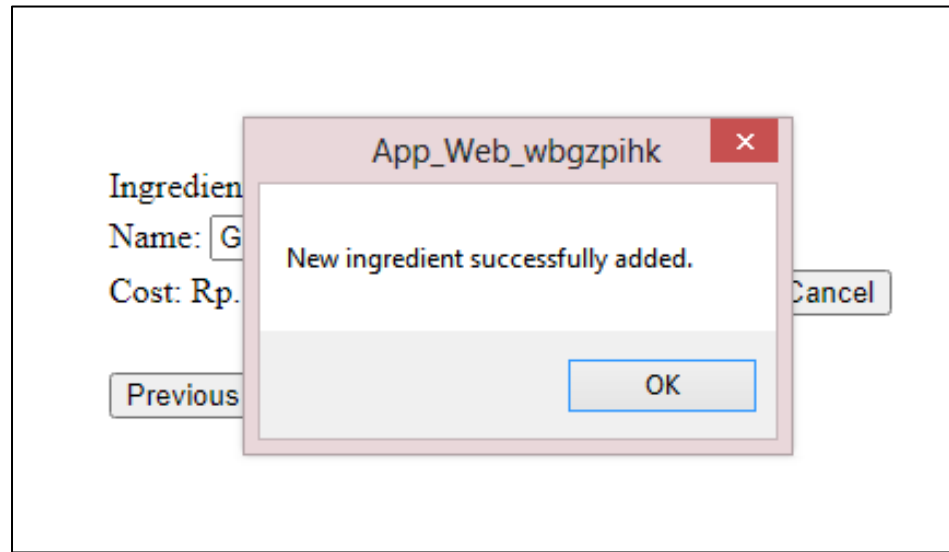
App\_Web\_wbgzpihk

Changes successfully saved.

OK

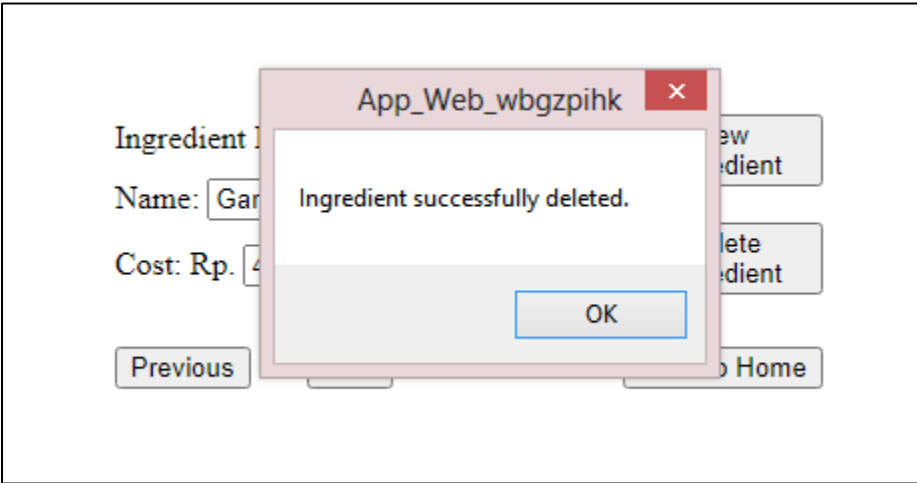
Ingredient_List			
	Ingredient_ID	Ingredient_	Cost
+	1	Chicken Breast	Rp25
+	2	Salt	Rp8
+	3	Egg	Rp7
+	4	Flour	Rp18
+	5	Rice	Rp10

19.



Ingredient_List			
	Ingredient_ID	Ingredient_	Cost
+	1	Chicken Breast	Rp25
+	2	Salt	Rp8
+	3	Egg	Rp7
+	4	Flour	Rp18
+	5	Rice	Rp10
+	6	Garlic	Rp4

20.



Ingredient_List			
	Ingredient_ID	Ingredient_	Cost
+	1	Chicken Breast	Rp25
+	2	Salt	Rp8
+	3	Egg	Rp7
+	4	Flour	Rp18
+	5	Rice	Rp10
+	#Deleted	#Deleted	#Deleted

21.22. 23.

Daily Report	
Top Customers of the Day	Top Selling Products of the Day
1. Beatrice 2. Carlos 3. Bianca 4. Agnes 5.	1. Bread 2. Dumplings 3. Cake 4. Pancake 5. Nuggets
Total Revenue: Rp. 227000      Total Cost: Rp. 5215	
Total Profits: Rp. 221785	
<a href="#">Back to Reports</a>	

Date: 03/03/2023

Monthly Report	
Top Customers of the Month	Top Selling Products of the Month
1. Beatrice 2. Carlos 3. Bianca 4. Agnes 5.	1. Nuggets 2. Bread 3. Dumplings 4. Cake 5. Pancake
Total Revenue: Rp. 257000      Total Cost: Rp. 6436	
Total Profits: Rp. 250564	
<a href="#">Back to Reports</a>	

Month: March

Year: 2023

### Yearly Report

Top Customers of the Year	Top Selling Products of the Year
1. Beatrice 2. Carlos 3. Bianca 4. Agnes 5.	1. Nuggets 2. Bread 3. Dumplings 4. Cake 5. Pancake

Year:

2023



Total Revenue: Rp. 257000

Total Cost: Rp. 6436

Total Profits: Rp. 250564

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### All Time Report

Top Customers of All Time	Top Selling Products of All Time
1. Beatrice 2. Carlos 3. Bianca 4. Agnes 5.	1. Nuggets 2. Bread 3. Dumplings 4. Cake 5. Pancake

Total Revenue: Rp. 257000

Total Cost: Rp. 6436

Total Profits: Rp. 250564

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