



## ***Topic: SugaRie Sweets***

<b>Name</b>	<b>ID</b>
Omran Naif Mohannad Nayef	SW01083445

### **Section 03A**

### **CISB3313 (Database 1)**

**Prepared for:**

Mohana Shanmugam

## Table of Contents

1.0 Store Background .....	4
2.0 Scope of the system .....	5
2.1 Objectives .....	5
2.2 System's Features .....	5
2.2.1 Administrator .....	5
2.2.2 Manager .....	5
2.2.3 Employee .....	5
3.0 System Users .....	6
4.0 Entity Relationships Diagram .....	7
5.0 Data Dictionary .....	8
5.1 Customer Table .....	8
5.2 Product Table .....	8
5.3 Employee .....	9
5.4 Order .....	9
6.0 Tables .....	10
Customer table .....	10
Product Table .....	10
Employee Table .....	11
Order Table .....	11
7.0 Sample Queries .....	12
7.1 Creating Table .....	12
CREATE TABLE Customer .....	12
Create Table Product .....	13
Create Table Employee .....	13
Create Table Order .....	14
7.2 Inserting Values into Tables .....	15
7.3 Display Data in Table .....	16
8.0 System Interface .....	17
8.1 Main Menu .....	17
8.2 Manger View .....	18
8.2.1 Manger Page .....	18
8.2.2 Employee Records .....	19

8.2.3 Managing Products .....	20
8.3 Employee View .....	21
8.3.1 Employee Page .....	21
8.3.2 Customer and Orders Page .....	22
9.0 Conclusion .....	25

# 1.0

## Store Background

**SugRie** is a delicious pastry shop founded by **Cherie** in 2018. She had a dream of presenting cookie cakes in a distinctive and delicious way. In the beginning, she made cookies on her own and sold them in public places, such as famous streets. She continued like this for about two years, and after that she decided to open her own shop and continue her work there. She had some friends who believed in her and supported her with her own shop, and the work continued like this until two years ago from now. She decided to let her store expand and have her products delivered in places close to the store, and she succeeded in doing so, but in the near future she wants to expand further and build her own website on the Internet.

## 2.0

### Scope of the system

#### 2.1 Objectives

This system's primary goals are to develop the following database management systems:

1. Easily record customer order information
2. Facilitating the transfer of customer information on the delivery application
3. To develop a system that keeps SugaRie Sweets critical data.
4. To know the remaining quantities of resources used in this bakery.

#### 2.2 System's Features

##### 2.2.1 Administrator

- The system Administrator has complete access to the system.
- Have access to view, edit and delete all the information and rows.

##### 2.2.2 Manager

- Able to View and Edit for employees' records.
- Able to Add and Delete employees' records.
- Able to View and Edit Product record.
- Able to Add and Delete Products record.
- Able to Search from Employee Records

##### 2.2.3 Employee

- Able to View, Edit, Add and Delete data in Customer table.
- Able to View, Edit, the Add and Delete Order table.
- Able to Search Both Customer and Orders Records

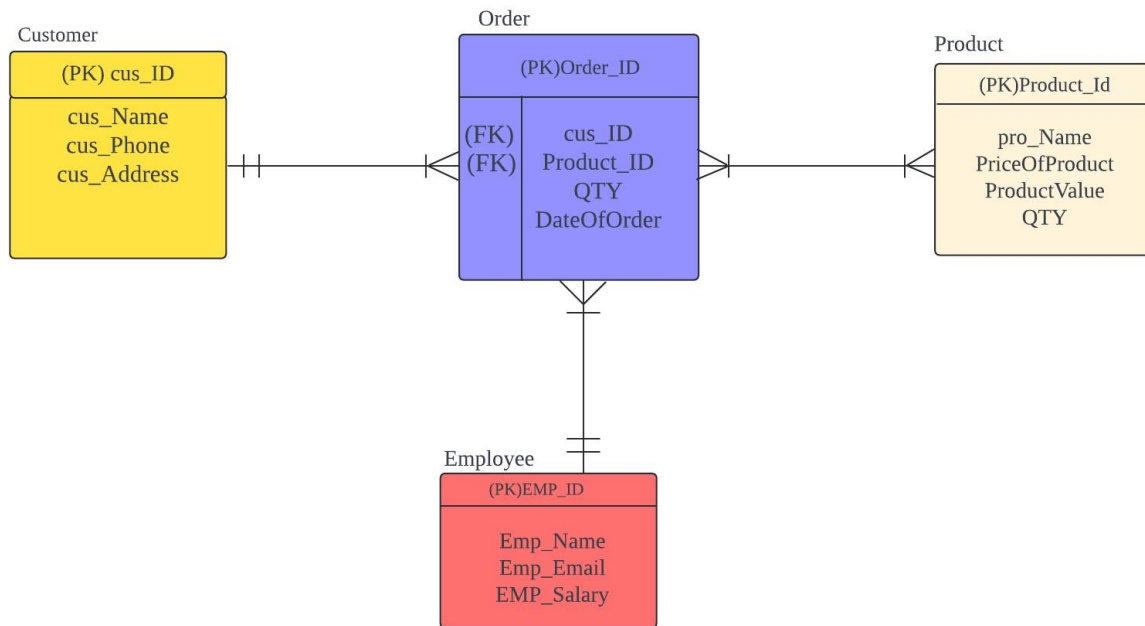
## 3.0

### System Users

There will be two groups of persons who utilize this database system, Employee, and Manager, Employees are one of the system users, The Manager they've to fill up their employees records like employees ID, employees Name, employees Email and employee's salary. However, Employees also responsible to record customer orders.

Employees can use the system as customers and enter customers' information straight into it, including the customer's name, phone number, address, and order quantity, since customer users are not permitted to use it. Finally, the system will be monitored by the manager, who may also Add, Edit, or Remove records pertaining to employees, and products.

## 4.0 Entity Relationships Diagram



## 5.0 Data Dictionary

### 5.1 Customer Table

Attribute	Description	Data Type	Data Format	Constraints
cus_ID	Unique identifier for each customer	VARCHAR2(50)	0000	Primary key
cus_Name	Name of the customer	VARCHAR2(50)	-	Not Null
cus_Phone	Phone number of the customer	NUMBER (11)	-	Unique
cus_Address	Address of the customer	VARCHAR2(50)	Text (Ex: "123 Main Street, City, Country")	Not Null

### 5.2 Product Table

Attribute	Description	Data Type	Data Format	Constraints
Product_Id	Unique identifier for each product	VARCHAR2	000	Primary key
pro_Name	Name of the product	VARCHAR2	Text EX: Cookie Pie	Not Null
PriceOfProduct	Price of the product	NUMBER	Number EX: RM15	Not Null
ProductValue	The total price of specific product	NUMBER	Total: RM100	Not Null
QTY	The rest of the stock of specific product	NUMBER	-	Not Null



### 5.3 Employee

Attribute	Description	Data Type	Data Format	Constraints
EMP_ID	Unique identifier for each employee	VARCHAR2(50)	0000	Primary key
EMP_Name	Name of the employee	VARCHAR2(50)	Ex: John Doe	Not Null
EMP_Email	Email address of the employee	VARCHAR2(50)	Ex: john.doe@SugaRie.com	UNIQUE
EMP_Salary	Salary of the employee	NUMBER	Ex: RM 5,500.00	Check (salary > 0)

### 5.4 Order

Attribute	Description	Data Type	Data Format	Constraints
Order_ID	Unique identifier for each order	VARCHAR2	0000	Primary key
cus_ID	Identifier for the customer placing the order	NUMBER	-	Foreign Key
Product_Id	Identifier for the Product placing the order	NUMBER	-	Foreign Key
QTY	The quantity that the customer will buy	NUMBER	-	Not Null
DateOfOrder	The date that customer want his order	VARCHAR2	__/__/__	Not Null

## 6.0 Tables

Customer table

cus_ID	cus_Name	cus_Phone	cus_Address
5	Naif	01111867312	De Centrum
6	Adham	01117265625	De centrum B-28-12
7	7aramiTheaf	01917276287	UniPark
8	Fefe3bdo	01222983337	De centrum Tower
9	Fathi Adham A	01189283783	The Place
10	Nanci	01283732653	Park Veiw
(New)			

Product Table

Product_Id	pro_Name	QTY	PriceOfProduct	ProductValue
1	MILK N CEREAL	7	\$3.00	\$21.00
2	LEMON GLAZE	4	\$3.00	\$12.00
3	S'MORES	1	\$5.50	\$5.50
4	CHOCOLATE DREAM	2	\$8.99	\$17.98
5	NUTELLA COOKIE PIE	5	\$9.99	\$49.95
6	BISCOFF COOKIE PIE	12	\$6.29	\$75.48
7	ONDE ONDE	3	\$9.99	\$29.97
8	NUTTY HAZELNUT	9	\$3.00	\$27.00
9	BISCOFF BOMB	7	\$6.99	\$48.93
10	Apple Pie	13	\$5.99	\$77.87
(New)		0		

Employee Table

EMP_ID ▾	EMP_Name ▾	EMP_Email ▾	EMP_Salary ▾
1	Mohammad Khalid	<a href="mailto:mo.kh@sugarie.com">mo.kh@sugarie.com</a>	RM2,300.00
2	Noof Ahmad	<a href="mailto:noof1997@sugarie.com">noof1997@sugarie.com</a>	RM3,700.00
3	Nabila Abdulallah	<a href="mailto:nabolaa12507@sugarie.com">nabolaa12507@sugarie.com</a>	RM1,950.00
4	Adham Ahmad	<a href="mailto:Adhomty.PL@sugarie.com">Adhomty.PL@sugarie.com</a>	RM5,550.00
5	Loai abosharh	<a href="mailto:L.abosharh@sugarie.com">L.abosharh@sugarie.com</a>	RM4,690.00
6	Hamdan	<a href="mailto:Hamdanamortaiba@SugaRie.com">Hamdanamortaiba@SugaRie.com</a>	RM2000
(New)			

Order Table

Order_ID ▾	CUSTOMER ▾	Product ▾	QTY ▾	DateOfOrder ▾
5	Naif	MILK N CEREAL	2	2 /6 /2024
6	Adham	Apple Pie	2	5 /18/2024
7	7aramiTheaf	Apple Pie	1	5 /18/2024
8	Naif	S'MORES	1	2 /6 /2024
9	Fefe3bdo	MILK N CEREAL	1	6 /6 /2024
10	Fathi Adham Alshbshb	BISCOFF COOKIE PIE	2	9 /27/2024
11	Nanci	NUTELLA COOKIE PIE	4	9 /9 /2024
(New)			0	

## 7.0 Sample Queries

### 7.1 Creating Table

CREATE TABLE Customer

```
(  
  cus_ID          VARCHAR2(50) CONSTRAINT Customer_cus_ID_pk  
  PRIMARY KEY,  
  
  cus_Name        VARCHAR2(50) CONSTRAINT CUSTOMER_cusName_nn  
  NOT NULL,  
  
  cus_Phone       NUMBER (12) CONSTRAINT _CUSTOMER_cus_Phone_uk  
  UNIQUE,  
  
  cus_Address     VARCHAR2(50) CONSTRAINT CUSTOMER_cus_Address_nn  
  Not Null,  
  
);
```

## Create Table Product

```
(  
  Product_Id VARCHAR2(20) CONSTRAINT Products_Product_Id_pk PRIMARY  
  KEY,  
  pro_Name VARCHAR2(50) CONSTRAINT Products_pro_Name_nn  
  NOT NULL,  
  PriceOfProduct NUMBER CONSTRAINT Products_PriceOfProduc_nn  
  NOT NULL,  
  ProductValue NUMBER CONSTRAINT Products_ProductValue_nn  
  NOT NULL  
  QTY NUMBER CONSTRAINT Products_QTY_nn  
  Not Null  
);
```

## Create Table Employee

```
(  
  EMP_ID VARCHAR2(20) CONSTRAINT Employee_EMP_ID_pk  
  PRIMARY KEY,  
  EMP_Name VARCHAR2(50) CONSTRAINT Employee_EMP_Name_nn  
  NOT NULL,  
  EMP_Email VARCHAR2(50) CONSTRAINT Employee_EMP_Email_uk  
  UNIQUE,  
  EMP_Salary NUMBER CONSTRAINT Employee_EMP_Salary_check  
  (salary > 0) );
```

Create Table Order

```
(  
Order_ID VARCHAR2(20) CONSTRAINT Order_Order_ID_pk PRIMARY  
KEY,  
cus_ID NUMBER CONSTRAINT Order_cus_ID_fk,  
REFERENCES Customer (cus_ID),  
Product_Id NUMBER CONSTRAINT Order_Product_Id_fk,  
REFERENCES product (Product_Id),  
QTY NUMBER CONSTRAINT Order_QTY_nn,  
Not Null  
DateOfOrder CONSTRAINT Order_DateOfOrder_nn  
Not Null  
);
```

## 7.2 Inserting Values into Tables

```
INSERT INTO Customer (cus_ID, cus_Name, cus_Phone, cus_Address)
```

```
Values (&cus_ID&cus_Name, &cus_Phone, &cus_Address);
```

```
INSERT INTO Product (Product_Id ,pro_Name, PriceOfProduct, ProductValue, QTY)
```

```
Values (&Product_Id, &pro_Name, &PriceOfProduct, &ProductValue, &QTY);
```

```
INSERT INTO Employee (EMP_ID, Emp_Name, Emp_Email, EMP_Salary)
```

```
Values (&EMP_ID &EMP_Name, &EMP_Email, &EMP_Salary)
```

```
INSERT INTO Order (Order_ID, cus_ID, Product_Id, QTY, DateOfOrder)
```

```
Values (&Order_ID, &cus_ID, &Product_Id, &QTY, &DateOfOrder_
```

### 7.3 Display Data in Table

```
SELECT *  
FROM Customer
```

```
SELECT *  
FROM Product
```

```
SELECT *  
FROM Employee
```

```
SELECT *  
FROM Order
```



## 8.0 System Interface

### 8.1 Main Menu



1. In the main menu There are 2 buttons that will lead the users to different pages of the system based on their roles which are **manager** and **employee**.
2. The user can do various functions depending on the role they are assigned.
3. The buttons can be clicked by the user to access the required forms and actions.

## 8.2 Manger View

### 8.2.1 Manger Page



1. On this page the manager can access the Employee Records and the Products
2. If the Manager wants to return to the main menu, he can click on "Back to Main Menu".

### 8.2.2 Employee Records

The screenshot shows a web application titled "Employee Records" with a pink and white logo. The interface includes two buttons at the top: "Back To Main Menu" and "Back to Manager Page". Below these are four input fields for employee details: "EMP\_ID" (containing '1'), "EMP\_Name" (containing 'Mohammad Khalid'), "EMP\_Email" (containing 'mo.kh@sugarie.com'), and "EMP\_Salary" (containing 'RM2,300.00'). To the right of these fields is an "Employee Search" section with a dropdown menu and two buttons: "Add Record" and "Save Record". At the bottom of the form are four navigation buttons: a yellow button with a double left arrow, a white button with a single left arrow, a white button with a single right arrow, and a yellow button with a double right arrow. On the far right, there are two buttons: a trash can icon for deleting a record and a document icon for adding a new record.

1. The manager needs to click the "Employee Records" button in order to access this page.
2. In this Page the manager can View, Edit, Add, Delete and search for employees.
3. The following details about the employee will be shown: Employee ID, Name, Email, and Salary.
4. The manager will be able to search if he clicks on the Search bar, Employee Records can be searched by EMP\_ID and EMP\_Name.
5. The manager also has the option to peruse each employee's record individually by using the left "<" or right ">" arrow buttons.
6. The manager must click the "Add Records" button in order to add a new record. This will cause a blank field to appear, which the manager may then fill up and click the "Save Record" button.
7. To Delete a record the manager can click the "Trash can icon" to delete a record.
8. To go back to the main menu, click on the "Back to Main Menu" button.
9. To go back to the Manager Page, click on the "Back to Manger Page" button.

### 8.2.3 Managing Products

The screenshot shows a web application titled "Managing Products" with a "SugarRie" logo. At the top, there are two buttons: "Back To Main Menu" and "Back to Manager Page". Below these are five input fields for product information: "Product\_Id" (containing '1'), "pro\_Name" (containing 'MILK N CEREAL'), "QTY" (containing '7'), "PriceOfProduct" (containing '\$3.00'), and "ProductValue" (containing '\$21.00'). To the right of these fields are two buttons: "Add Product" and "Save". At the bottom left, there are four navigation buttons: a double left arrow, a single left arrow, a single right arrow, and a double right arrow. On the right side, below the "Save" button, are two buttons: a trash can icon and a document icon.

1. To access this page, the manager must click on the "Managing Products" button.
2. In this Page the manager can View, Edit, Add, Delete products from the system.
3. The Products information that will be displayed are Product\_Id, Name, Quantity, Price and the ProductValue.
4. The manager can also browse through the list of Products records one by one by clicking on the left arrow "<" or the right arrow ">". This will display all the products records in the database in sequence following the order in the list.
5. To add a new product, the manager can click on "Add Product" button and fill up the information needed and click on the "Save" button to save it in the database.
6. To delete the product records the manager can click on the "Trash can" icon to delete the product.
7. To go back to the main menu, click on the "Back to Main Menu" button.
8. To go back to the Manager Page, click on the "Back to Manger Page" button.

## 8.3 Employee View

### 8.3.1 Employee Page



1. In this role, Employee will be able to access the customer and order records.
2. To go back to the main menu, click on the "Back to Main Menu" button.

### 8.3.2 Customer and Orders Page

**Customer and Orders**

Back To Main Menu    Back to Employee Page

cus\_ID: 10

cus\_Name: Nanci

cus\_Phone: 01283732653

cus\_Address: Park Veiw

Search customer

Add Order

Save

Print

Product	QTY	DateOfOrder	OrderValue
NUTELLA COOKIE PIE	4	9/9/2024	\$39.96


Record: 1 of 1    No Filter    Search

Navigation buttons: Left arrow, Left arrow, Right arrow, Right arrow

Trash can icon

1. To access this page, The employee must click on the “Customer and orders” button.
2. In this page, the employee can View, Edit, Add, Delete and search for a customer.
3. The information that are displayed are the Customer\_ID, Name, Phone, Address, Product name, Qty, DateOfOrder and the OrderValue.
4. The employee is able to go through the customer and customer orders just by clicking the left arrow “<” or the right arrow “>”.
5. The employee can delete a customer record or orders just by clicking the “Trash can” icon.
6. By clicking the “Print” button the employee can make a report includes customer information and their orders.
7. To go back to the main menu, click on the “Back to Main Menu” button.
8. To go back to the Employee Page, click on the “Back to Employee Page” button.

### 8.3.2.1 Print View



## Report

Sunday, May 19, 2024  
1:15:22 PM

**Naif**

S'MORES	1	\$5.50	2 / 6 / 2024
MILK N CEREAL	2	\$6.00	2 / 6 / 2024

CustomerTotal: \$11.50  
Customer Avg: 5.75

**Adham**

Apple Pie	2	\$11.98	5 / 18 / 2024
-----------	---	---------	---------------

CustomerTotal: \$11.98  
Customer Avg: 11.98

**7aramiTheaf**

Apple Pie	1	\$5.99	5 / 18 / 2024
-----------	---	--------	---------------

CustomerTotal: \$5.99  
Customer Avg: 5.99

**Fefe3bdo**

MILK N CEREAL	1	\$3.00	6 / 6 / 2024
---------------	---	--------	--------------

CustomerTotal: \$3.00  
Customer Avg: 3

Page 1 of 2

1. In this page customers and their orders will be displayed and printed.
2. This page will provide customers name, Product name, the Quantity, price, the DateofOrder, Also, the total price of order (*if the customer ordered more than one*)

### 8.3.2.2 Print the Report

**Nanci**

NUTELLA COOKIE P	4	\$39.96	9 /9 /2024
------------------	---	---------	------------

CustomerTotal:

\$39.96

Customer Avg:

39.96

**Jamila**

NUTELLA COOKIE P	1	\$9.99	5 /19/2024
------------------	---	--------	------------

CustomerTotal:

\$9.99

Customer Avg:

9.99


Shop Total:

\$95.00

Shop Avg:

\$11.88

**Print Report:**



Back To Main Menu

Back to Employee Page

Customers and Orders

1. To print the Report the employee must click on the “Printer” icon.
2. To go back to the main menu, click on the “Back to Main Menu” button.
3. To go back to the Employee Page, click on the “Back to Employee Page” button.
4. To go back to the Customer and orders page, click on the “customers and orders” button.



## 9.0 Conclusion

To conclude, we can say that the database I created for SugaRie Sweets will help the business to grow, as it helps them to organize the amounts of customers information in one place without having to go through each receipt by hand. A strong database enables us to keep the necessary information, steer clear of duplication, and above all, strengthen data security. Additionally, it aids the company in monitoring its expenditure, the products' stock quantities' the price changes and the employees' salaries, employee productivity will eventually increase with the use of queries and forms since they make it easier for staff members to find data by typing in keywords. Our goal is for an increasing number of companies and organizations, particularly new ones, to use the database system extensively.