

Contents

1.0	Company Background.....	1
2.0	Scope of The System.....	2
2.1	Objectives	2
2.2	System Features	2
2.2.1	Administrator	2
2.2.2	Customer	2
2.2.3	Employee	2
2.2.4	Manager	3
3.0	System Users.....	4
4.0	Entity Relationships Diagram	5
5.0	Data Dictionary	6
	Employee Table	6
	Customer Table.....	6
	Item Table.....	7
	Order Table.....	7
6.0	Tables.....	8
	Customer Table.....	8
	Employee Table	8
	Item Table.....	8
	Order Table.....	9
	Order Item Query Table.....	9
7.0	Sample Queries	10
	Creating Table	10
	Inserting Values Into Tables	11
	Display All Data In Table	12
	Creating Query Between Item And Order.....	12
8.0	System Interface.....	13
8.1	Menu	13
8.2	Employee View.....	14
8.2.1	Customer Info View Page	14
8.2.2	Edit Customer Info Page	14
8.2.3	Add Item Page.....	15
8.2.4	View Order Page	15
8.3	Customer Interface	16
8.3.1	View Item Page.....	16
8.3.2	Customer Details Page	16

8.3.3	Order Details Page	17
8.3.4	View Order Page	18
8.4	Manager Interface	19
8.4.1	Delete Employee Details Page	19
8.4.2	Add Employee Details Page	19
9.0	Conclusion	21

1.0 Company Background

In the year 2009, 3 sisters, Rania, Manisah and Balqis, decided to drop their careers in order to go back to their hometown to visit their ailing mother. There, they inherited their mother's small *Warung* stall in kampung Sungai Pusu, Gombak. That is the beginning of the Wc Donalds Restaurant.

Today, still headed by the aforementioned three sisters and our line of amazing branch managers, the small restaurant with only a small store in Gombak has evolved to a fast food style restaurant with multiple branches across Selangor and Kuala Lumpur with its main headquarters currently located in Kota Warisan, Sepang. The branches are located in Kajang, Shah Alam, Gombak, Ampang, Cheras and Puchong.

The restaurant specializes in classic Malaysian Cuisine like *Soto*, *Nasi Ayam Merah* and many more, all with a little twist and a funky name (an absolute trademark of the restaurant). Not only that, unique takes on western dishes are also included in their extensive menu all made to suit the Malaysian taste.

Wc Donald's was originally a traditional dine in fast food restaurant, but ever since the pandemic hit and many businesses were thoroughly affected, the restaurant has decided to take a leap into the future and venture in online food delivery as well to cater to more of our customers around Selangor so that many more can enjoy the phenomenal taste of the Wc Donald's legacy.

2.0 Scope of The System

The system that will be built is a comprehensive system that allows four main users (customers, employees, manager and administrator) to be able to interact with it in order to fulfill their own roles and objectives. System is built based on other existing similar database system but is customized to suit the business owner's specific requirements

2.1 Objectives

1. To create a comprehensive customer database that stores important information that can be used to facilitate online purchases and help keep track of restaurant reputation
2. To create a system that enables employees to cater to online orders efficiently given a more structured and detailed information on purchases is given
3. To enable managers to keep track of employees' position and salary status
4. To help keep track of food stuff inventory.

2.2 System Features

2.2.1 Administrator

- Have access to view all tables in database (Customer, Item, Order, Employee)
- Administrator can add, delete or edit records of all current tables
- Have access to adding, editing or deleting forms

2.2.2 Customer

- Customer can add their customer details into customer table by filling in the form
- Items in Item table can be viewed through an interface that enables customer to use dropdown function to browse items.
- Customers can add in order details to order table using an order form
- A summarization of order made by customer can be viewed

2.2.3 Employee

- Able to add in new item into item inventory table using
- Able to edit customer info records in customer table
- Able to view customer info to facilitate food delivery
- Able to view order info of customers to help facilitate food preparation and payment

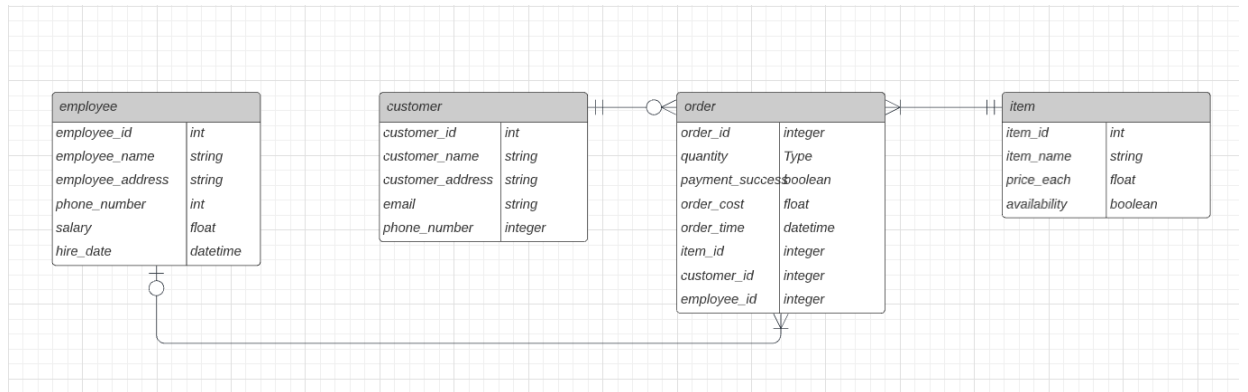
2.2.4 Manager

- Able to add employees using Add Employee Form
- Able to delete employees using Delete Employee Form

3.0 System Users

The database system will be used by 3 categories of people, who are the customers, employees and administrators. The first user, customers will interact with our system by filling up a form. In the form they will be inputting the information such as customer ID, customer name, phone number, email address so our system will be able to record their details. After they will be introduced to another form, in which they will insert their order details, including item ID, quantity, and order ID. The second user, employees also will interact with the database system by filling up a form which includes information about the employees ID, employee's names, employee's phone number, email, hire date and their salary. Lastly the administrators will be monitoring items by inserting the information like item ID, name of the item, price, and person in charge.

4.0 Entity Relationships Diagram



5.0 Data Dictionary

Employee Table

Attribute	Description	Data Type	Size	Data Format	Constraint
employee_id	Employee Work ID	Number	5	-	Primary Key
name	Employee first name	Long Text	20	-	Not Null
address	Employee address	Long Text	100	-	Not Null
Phone_Number	Employee phone number	Large number	15	-	
Salary	Employee salary	Number	10	-	Not Null
Hire_Date	Employee hire date	Date/Time		DD/MM/YYYY	Not Null

Customer Table

Attribute	Description	Data Type	Size	Data Format	Constraint
customer_id	Customer receipt number	Number	5	-	Primary Key
name	Customer first name	Long Text	20	-	Not Null
Address	Employee's address	Long Text	100	-	Not Null
phone_number	Employee phone number	Large number	15	-	Not Null

Item Table

Attribute	Description	Data Type	Size	Data Format	Constraint
item_id	Item number	Short text	5	-	Primary Key
item_name	item name	Long Text	20	-	Not Null
price_each	Price for each item	Currency	100	-	Not Null

Order Table

Attribute	Description	Data Type	Size	Data Format	Constraint
order_id	Order id	Number	5	-	Primary Key
item_id	Item number	Short text	5	-	Not Null Foreign Key
quantity	Order quantity	Number	20	-	Not Null
customer_id	Customer receipt number	Number	5	-	Not Null Foreign Key
employee_id	Employee Work ID	Number	5	-	Not Null Foreign Key

6.0 Tables

Customer Table

customer_id	name	phone_number	Address
11	Ali Bin Kamal	601399235125	54, 8/16 Jln Keramat Maju, Kampung Harum, 43900 Sepang, Selangor
12	Zul Bin Hakim	601423556671	13, Blok 1, Murni Apartment, 43900 Sepang, Selangor
13	Ahmad	601323546345	No. 16, Jalan Itu 8/6, Taman Ixora, 46050 Petaling Jaya, Selangor
14	Hakeem	601235552311	Lot 1564, Kampung Jaya Industrial Area Off Jalan Hospital, 47000 Sungai Buloh, Selangor
15	Kamal Razak	601235234664	lot 36-3, subang business center jalan usj 9/5q, uep 47600, Selangor
16	Onya Sameh	601235234234	Jalan 5/65, Petaling Garden (sek 5), 46000 Petaling Jaya, Selangor
17	Alim Aiman	603251235221	11C, Jln Sg 3/17 Taman Sri Gombak, Batu Caves 68100, Selangor
18	Azman Yamer	601352324354	Lot 146, Jalan Ampang Bukit Belacan, 68000 Ampang, Selangor
1001	Eren Bin Yeager	601155072587	Lot 24 Jalan Shiganshina, Pulau Paradis
1002	Mikasa Binti Ackerman	60149448123	Lot 28, Jalan Shiganshina, Pulau Paradis Island
1003	Armin Bin Artlet	60199231234	Lot 28, Jalan Shiganshina, Pulau Paradis

Employee Table

employee_id	name	address	Phone_Number	Hire_Date	Salary
200	Faiz Bin Amil	B1-08-03 Panpuri Perdana Jalan Lompat Pagar 13/37 Seksyen 13 40100 Sg	601399235125	11/8/2021	RM1,500.00
201	Umar Raja	No. 2 Jln Tp 5 Taman Perindustrian Sime Uep 47600 Malaysia	601218362537	21/10/2020	RM2,234.00
202	Luqman	PUSAT BANDAR, SEKSYEN 9, 43650 BANDAR BARU BANGI	601568652738	19/1/2022	RM5,231.00
203	Azam Baru	741 Jalan 33 Kawasan 10 Pandamaran 42000 Port Malaysia	601996739233	16/5/2019	RM2,265.00
204	Tarik Owang	1 63 Jln Ss15/4C Ss15 47500 Petaling Jaya 47500 Malaysia	601804683829	21/9/2020	RM3,323.00
205	Jamal Naim	No. 15 Jalan Singa C 20/C Seksyen 20	601781654879	19/12/2020	RM3,254.00
206	Ahmad Naruto	C3-04-03 Persiaran Cendekiawan Kajang	601122342345	20/4/2022	RM9,985.00
207	Wan Sasuke	Lot 24 Kampung Daun Tersembunyi, Konoha	60132359987	15/4/2022	RM1,442.00

Item Table

item_id	item_name	price_each
agc01	Ayam Goreng Crispy	RM7.50
aja03	Air Jagung ABC	RM3.50
amb03	Air Milo Bang	RM4.00
bcml05	Bihun Cheese Masak Lemak	RM14.00
cg04	Crossiant Goreng	RM6.00
hs02	Hotdog Sosej	RM2.50
jjd06	Jemput-Jemput Datang	RM12.00
nam02	Nasi Ayam Merah	RM12.00
sssttep07	Sup Sotong Special Tambah Telur Extra Pedas	RM24.00
ts02	Takoyaki Salai	RM5.60
*		RM0.00

Order Table

Order	order_id	item_id	quantity	customer_id	employee_id
	4	aja03	2	14	201
	6	jjd06	3	18	204
	7	cg04	2	17	202
	21	agc01	3	14	200
	22	agc01	10	18	200
	72	agc01	5	11	200
	100	agc01	20	11	200
	102	jjd06	11	1002	205
✱	0		0	0	0

Order Item Query Table

Order Item	customer_id	name	item_id	item_name	quantity	price_each	order_id	TotalPrice
	14 Hakeem		aja03	Air Jagung ABC	2	RM3.50	4	7
	18 Azman Yamer		jjd06	Jemput-Jemput Datang	3	RM12.00	6	36
	17 Alim Aiman		cg04	Crossiant Goreng	2	RM6.00	7	12
	14 Hakeem		agc01	Ayam Goreng Crispy	3	RM7.50	21	22.5
	18 Azman Yamer		agc01	Ayam Goreng Crispy	10	RM7.50	22	75
	11 Ali Bin Kamal		agc01	Ayam Goreng Crispy	5	RM7.50	72	37.5
	11 Ali Bin Kamal		agc01	Ayam Goreng Crispy	20	RM7.50	100	150
	1002 Mikasa Binti Ackerman		jjd06	Jemput-Jemput Datang	11	RM12.00	102	132

7.0 Sample Queries

Creating Table

```
Create table employee(  
employee_id NUMBER(5)  
    CONSTRAINT emp_employee_id_pk PRIMARY KEY,  
employee_name VARCHAR2(50)  
    CONSTRAINT emp_employee_name_nn NOT NULL,  
employee_address VARCHAR2(25)  
    CONSTRAINT emp_employee_address_nn NOT NULL,  
phone_number NUMBER(15)  
    CONSTRAINT emp_phone_number_nn NOT NULL,  
hire_date DATE  
    CONSTRAINT emp_hire_date_nn NOT NULL,  
salary NUMBER(8, 2) );
```

```
Create table customer(  
customer_id NUMBER(5)  
    CONSTRAINT cs_customer_id_pk PRIMARY KEY,  
customer_name VARCHAR2(50)  
    CONSTRAINT cs_customer_name_nn NOT NULL,  
customer_address VARCHAR2(25)  
    CONSTRAINT cs_customer_address_nn NOT NULL,  
phone_number NUMBER(15)  
    CONSTRAINT cs_phone_number_nn_uk NOT NULL UNIQUE);
```

```

Create table item(
item_id NUMBER(5)
    CONSTRAINT im_item_id_pk PRIMARY KEY,
item_name VARCHAR2(25)
    CONSTRAINT im_item_name_nn NOT NULL,
price_each NUMBER(15)
    CONSTRAINT im_price_each_nn NOT NULL,
order_id NUMBER(5)
    CONSTRAINT im_order_id_fk REFERENCES order (order_id));

```

```

Create table order(
order_id NUMBER(5)
    CONSTRAINT odr_order_id_pk PRIMARY KEY,
quantity NUMBER(5)
    CONSTRAINT odr_quantity_nn NOT NULL,
customer_id NUMBER(5)
    CONSTRAINT odr_customer_id_fk REFERENCES customer(customer_id),
employee_id NUMBER(5)
    CONSTRAINT odr_employee_id_fk REFERENCES employee(employee_id));

```

Inserting Values Into Tables

```

INSERT INTO employee (employee_id, employee_name, employee_address,
phone_number, hire_date, salary)
VALUES (&employee_id, &employee_name, &employee_address, &phone_number,
&hire_date, &salary);

```

```
INSERT INTO customer (customer_id, name, phone_number, customer_address)
VALUES (&customer_id, &customer_name, &phone_number, &customer_address);
```

```
INSERT INTO item (item_id, item_name, price_each)
VALUES (&item_id, &item_name, &price_each);
```

```
INSERT INTO order (order_id, item_id, quantity, customer_id, employee_id)
VALUES (&order_id, &item_id, &quantity, &customer_id, &employee_id);
```

Display All Data In Table

```
SELECT *
FROM employee;
```

```
SELECT *
FROM customer;
```

```
SELECT *
FROM item;
```

```
SELECT *
FROM order;
```

Creating Query Between Item And Order

```
SELECT order.order_id, order.customer_id, item.item_id, item.item_name, item.price_each,
order.quantity, 'RM' & Format((([order].[quantity]*[item].[price_each]),"Fixed") AS
TotalPrice
FROM item INNER JOIN (customer INNER JOIN [order] ON customer.customer_id =
order.customer_id) ON item.item_id = order.item_id;
```

8.0 System Interface

8.1 Menu



1. Each role will have different views of the menu given above, each made specifically for the roles respectively.
2. The above menu is the menu that is displayed to the administrator.
3. The users can click on the buttons to access the necessary forms.

8.2 Employee View

8.2.1 Customer Info View Page

View Customer Info	
Customer ID	<input type="text" value="18"/>
Name	<input type="text" value="Azman Yamer"/>
Phone Number	<input type="text" value="601352324354"/>
Address	<input type="text" value="Lot 146 ,Jalan Ampang Bukit Belacan, 68000 Ampang, Selangor"/>

1. The Employee can click on the view customer info button to access this page
2. The Employee can use the drop down button to browse through the customer id.
3. Customer information of selected customer id which includes their Name, Phone Number and Address will be displayed


8.2.2 Edit Customer Info Page

Edit Customer Info	
Customer ID	<input type="text" value="12"/>
Name	<input type="text" value="Zul Bin Hakim"/>
Phone Number	<input type="text" value="601423556671"/>
Address	<input type="text" value="13, Blok 1, Murni Apartment, 43900 Sepang, Selangor"/>

Save Record

1. Employee can access Edit Customer Info Page by clicking the Edit Customer Info button on the menu.
2. Employee can browse through customer id by clicking on the dropdown button.
3. Employee can then edit any of the recorded details and can save any editing by clicking the Save Record button.

8.2.3 Add Item Page

 Add Item


Add New Record

Item ID	agc01
Item Name	Ayam Goreng Crispy
Price Each	RM7.50

Save Record

1. Employee can access the Add item Page by clicking on the Add New Record button on the menu.
2. To add a new item (menu), employee must click on the Add New Record button.
3. Employee can then fill in the spaces provided for the newly added item's ID, name and price.
4. The record of a newly added item can be saved by clicking on the Save Record button.
5. Employee can proceed with adding another item by clicking on the Add New Record Button.

8.2.4 View Order Page

 View Order


Order Number	7
Customer	17
Name	Alim Aiman
Item ID	cg04
Item Name	Crossiant Goreng
Price Each	RM6.00
Quantity	2
Total Price	12

1. Employee can access the View Order page by clicking on the View Order button on the menu.

2. Employee can browse through the order number by clicking the dropdown button.
3. The details of the selected order number will be displayed which includes the customer ID of the customer who ordered, their name, the item ID as well as the name of the item and their price, the quantity ordered by the customer and the total price.

8.3 Customer Interface

8.3.1 View Item Page

 View Item

Item ID	<input type="text" value="bcm105"/> <div>▼</div>
Item Name	Bihun Cheese Masak Lemak
Price Each	RM14.00

1. The Customer can access the View Item Page by clicking on the View Item button on the menu.
2. Customer can click on the dropdown button of the item ID to browse through the available food items to be ordered.
3. The page will display selected item's name and price for customer's purview.

8.3.2 Customer Details Page

 Customer

Add Record

Customer ID	<input type="text" value="11"/>
Name	<input type="text" value="Ali Bin Kamal"/>
Phone Number	<input type="text" value="601399235125"/>
Address	<input type="text" value="54, 8/16 Jln Keramat Maju, Kampung Harum, 43900 Sepang, Selangor"/>

Save Record

1. Customers can access the Customer Details page by clicking the Add Customer Info button on the menu.
2. Customer can start adding their personal details by clicking on the Add Record button.
3. Customer can then add in their personal details (Name, Phone Number and Address into the blank spaces provided for each field.
4. To save their details, customer can then click on the Save Record Button.
5. The Customer ID will be automatically generated.

8.3.3 Order Details Page

 Order

Add Record

Order Number	4
Customer ID	14
Item ID	aja03
Quantity	2
Employee ID	201

Save Record

1. Customer can access the Order Details page by clicking the Add Order Button on the menu.
2. To add in their order details, the customer can click on the Add Record button.
3. Customer then has to fill in the empty spaces provided for each field which are the Item Id that they can obtain by viewing the items available on the View Item page and the quantity of item that they want to purchase.
4. Customer can then save their order details by clicking on the Save Record button.
5. The order ID and employee ID (the one who will handle the order) will be automatically generated.

8.3.4 View Order Page

View Order	
Order Number	<input type="text" value="7"/>
Customer	<input type="text" value="17"/>
Name	<input type="text" value="Alim Aiman"/>
Item ID	<input type="text" value="cg04"/>
Item Name	<input type="text" value="Crossiant Goreng"/>
Price Each	<input type="text" value="RM6.00"/>
Quantity	<input type="text" value="2"/>
Total Price	<input type="text" value="12"/>

1. Customers can access the View Order page by clicking on the View Order button on the menu.
2. Customers can browse through the order number by clicking the dropdown button.
3. The details of the selected order number will be displayed which includes the customer ID of the customer who ordered, their name, the item ID as well as the name of the item and their price, the quantity ordered by the customer and the total price.

8.4 Manager Interface

8.4.1 Delete Employee Details Page

 Employee

Employee ID	<input type="text" value="201"/>
Name	<input type="text" value="Umar Raja"/>
Address	<input type="text" value="No. 2 Jln Tp 5 Taman Perindustrian Sime Uep 47600 Malaysia"/>
Phone Number	<input type="text" value="601218362537"/>
Hire Date	<input type="text" value="21/10/2020"/>
Salary	<input type="text" value="RM2,234.00"/>
<input type="button" value="Delete Record"/>	

1. Manager can access Delete Employee Details Page by clicking the Delete Employee button if they want to delete an employee's record given an employee's termination.
2. Manager can obtain the record of Employee to be terminated from the dropdown button of the employee ID.
3. Manager can delete the record by clicking the Delete Record button.

8.4.2 Add Employee Details Page

 Employee

Employee ID	<input type="text" value="200"/>
Name	<input type="text" value="Faiz Bin Amil"/>
Address	<input type="text" value="B1-08-03 Panpuri Perdana Jalan Lompat Pagar 13/37 Seksyen 13 40100 Shah Alam Malaysia"/>
Phone Number	<input type="text" value="601399235125"/>
Hire Date	<input type="text" value="11/8/2021"/>
Salary	<input type="text" value="RM1,500.00"/>
<input type="button" value="Save Record"/>	

1. Manager can access Add Employee Details Page by clicking the Delete Employee button if they want to add a new employee's record given an employee's induction into the store.
2. Manager has to click the Add Record button to proceed with adding the new employee's details.
3. Manager can obtain the record of new employee from the dropdown button of the employee ID.
4. Manager then has to fill in the details of the required fields (Employee Id, Name, Address, Phone Number, Hire Date and Salary) in the empty spaces provided.
5. Manager can delete the record by clicking the Delete Record button.

9.0 Conclusion

It can be concluded that the database system created for Wc Donalds will help the business a lot I terms of its transition from a dine in only restaurant to one that ventures into online delivery services. Not only that, the business is also able to keep track of their employees in their payroll as well as their customer base. This helps the business in which it enables it to track their outreach and business sales as well as the amount of human resources it has at hand. Overall, it helps improve the business so as it thrives in its online delivery service venture as well as the overall management of the business.