Faculty of Information and Communication Technology
Mahidol University

Project: Database Design and Implementation
McDonald's

By:

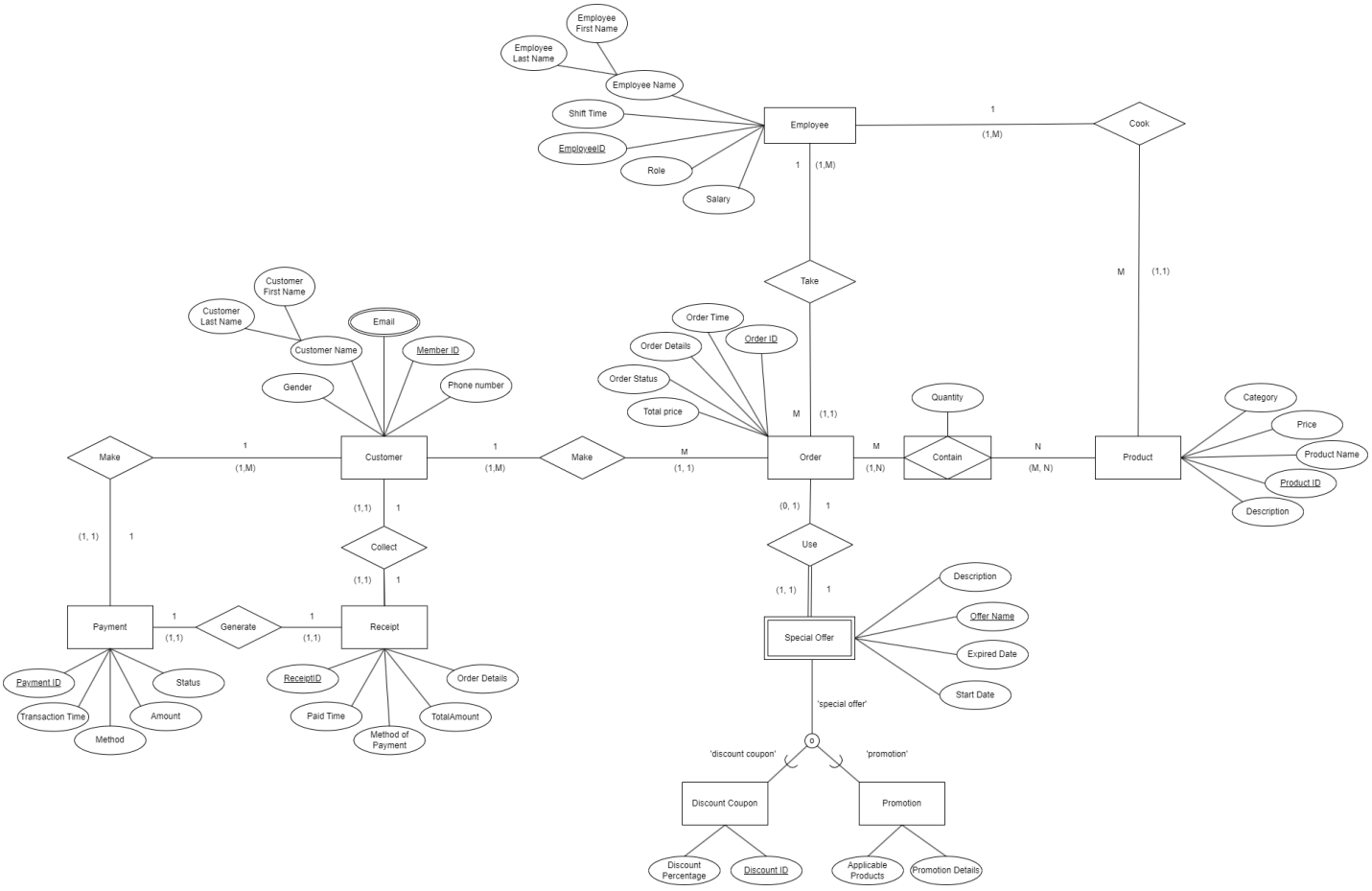
6588059	Phusit	Mongkhonwatcharaphun
6588061	Vichayuth	Ngamsittipong
6588068	Wasuntha	Phanpanich
6588075	Sorawit	Piriyapanyaporn
6588179	Punnathorn	Laohachote

Section 2, Group 8

ITCS241: Database Management Systems
1/2023
Asst. Prof. Dr. Preecha Tangworakitthaworn

ERD / EERD Diagram

McDonalds Entity Relationship Diagram



https://drive.google.com/file/d/1Gb3Go_o0nZuYgADakrADrYaiLd9tdxAs/view?usp=sharing

Relational Schema

(8-steps transformations)

Step 1: Regular Entity

Customer

CustomerID (PK)	CTM_ FirstName	CTM_ LastName	CTM_Gender	CTM_ PhoneNumber

Employee

EmployeeID (PK)	EMP_ First_Name	EMP_ Last_Name	EMP_Shift	EMP_Role	EMP_Salary

Order

OrderID (PK)	OD_Deatils	OD_Status	OD_TIme	OD_TotalPrice

Product

ProductID (PK)	PD_Name	PD_Price	PD_Category	PD_Description

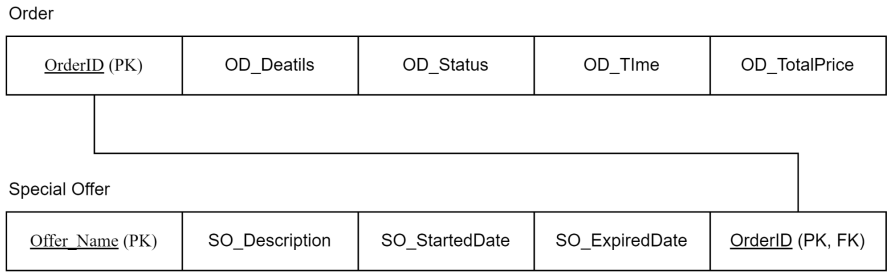
Payment

PaymentID (PK)	PM_Method	PM_Amount	PM_Status	PM_Time

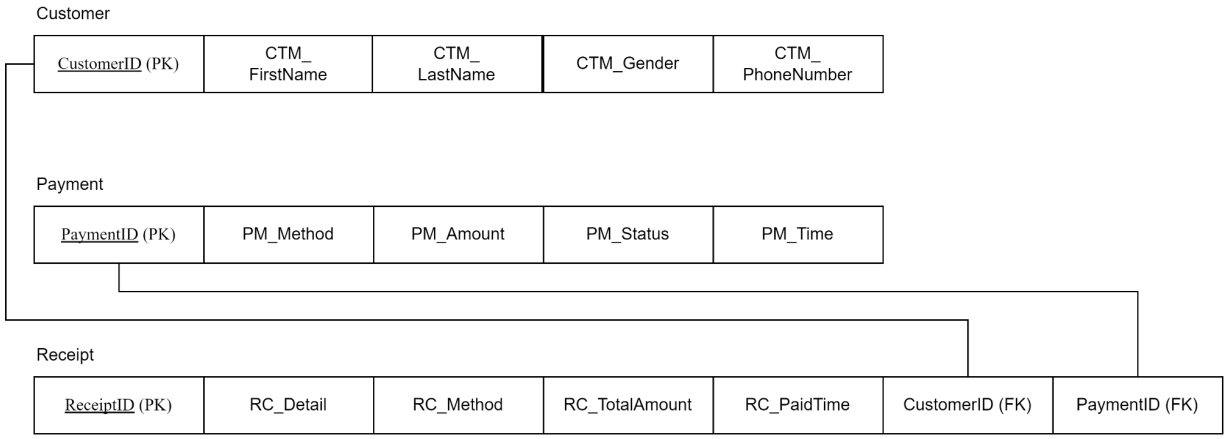
Receipt

ReceiptID (PK)	RC_PaidTime	RC_Method	RC_TotalAmount	RC_Detail

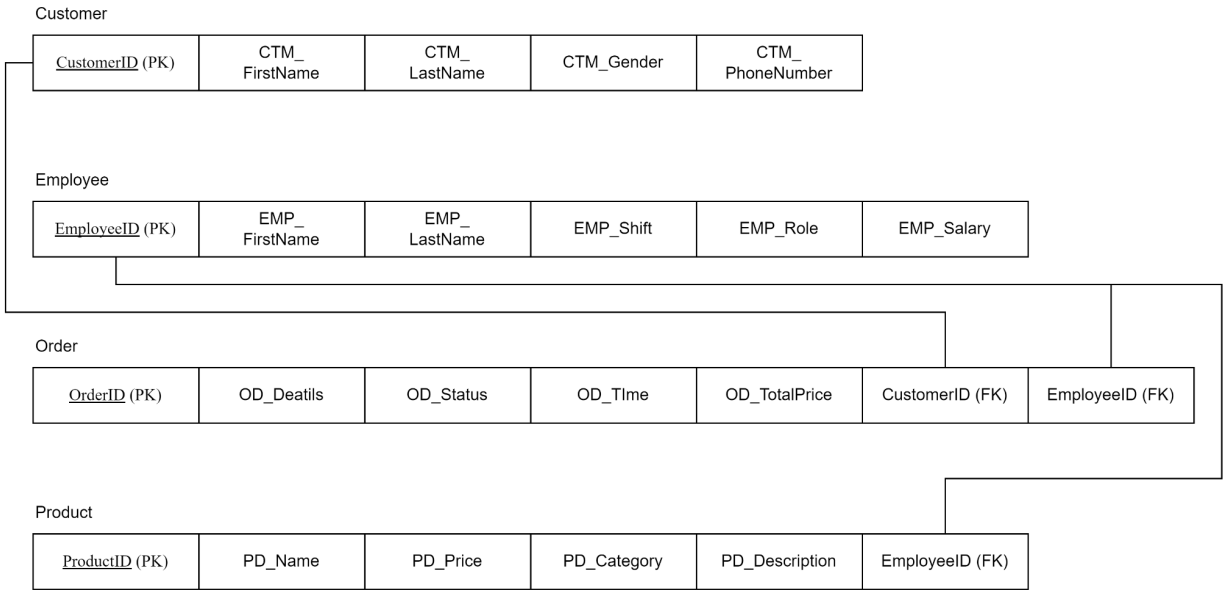
Step 2: Weak Entity



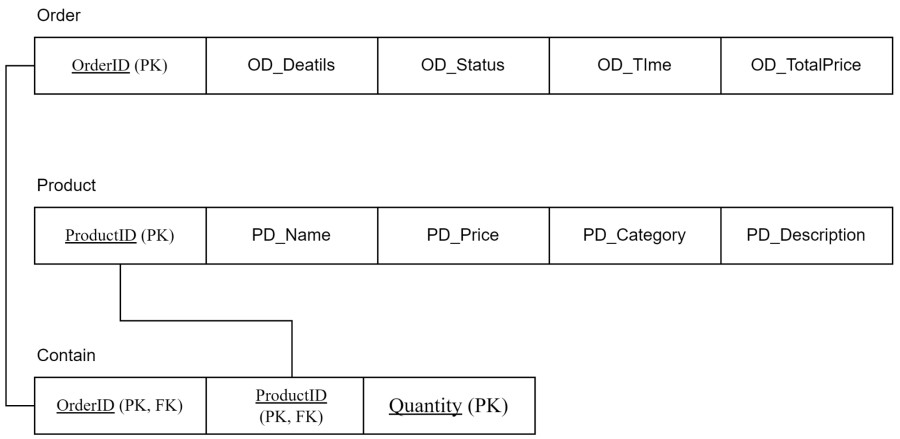
Step 3: Binary 1:1



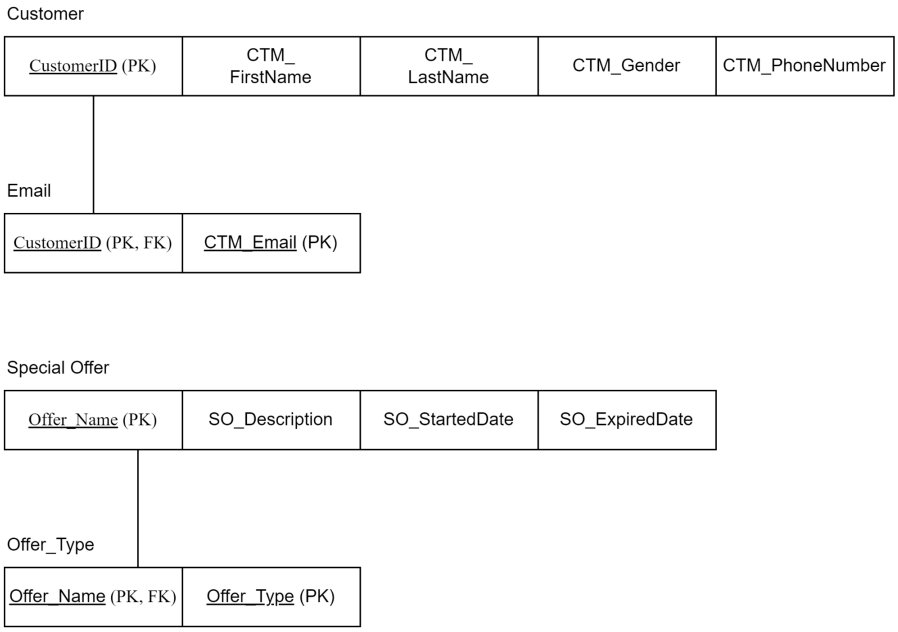
Step 4: Binary 1:N



Step 5: Binary M:N



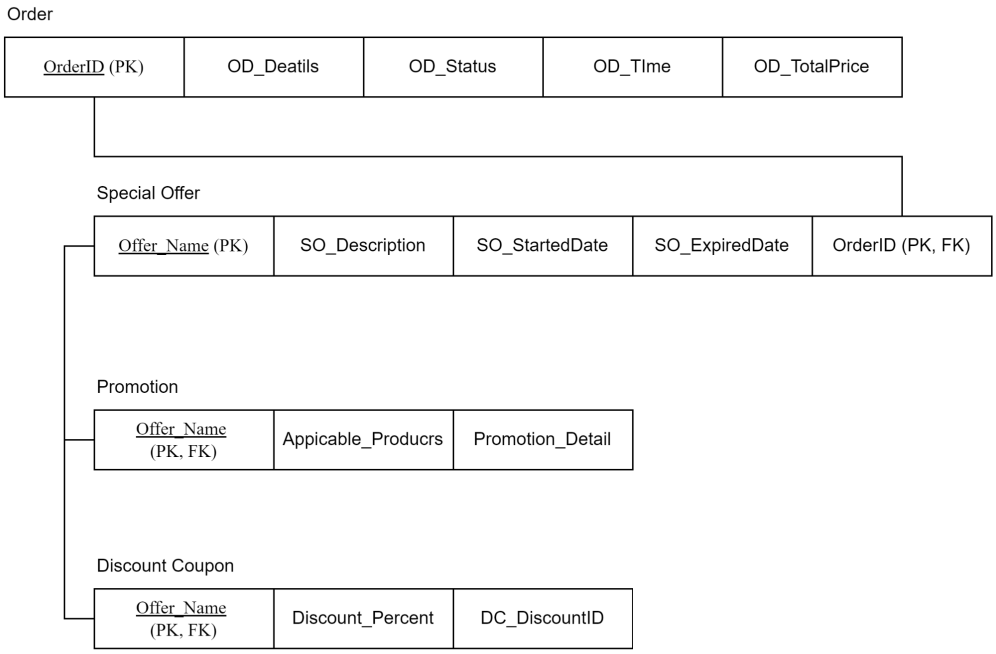
Step 6: MultiValued Attribute



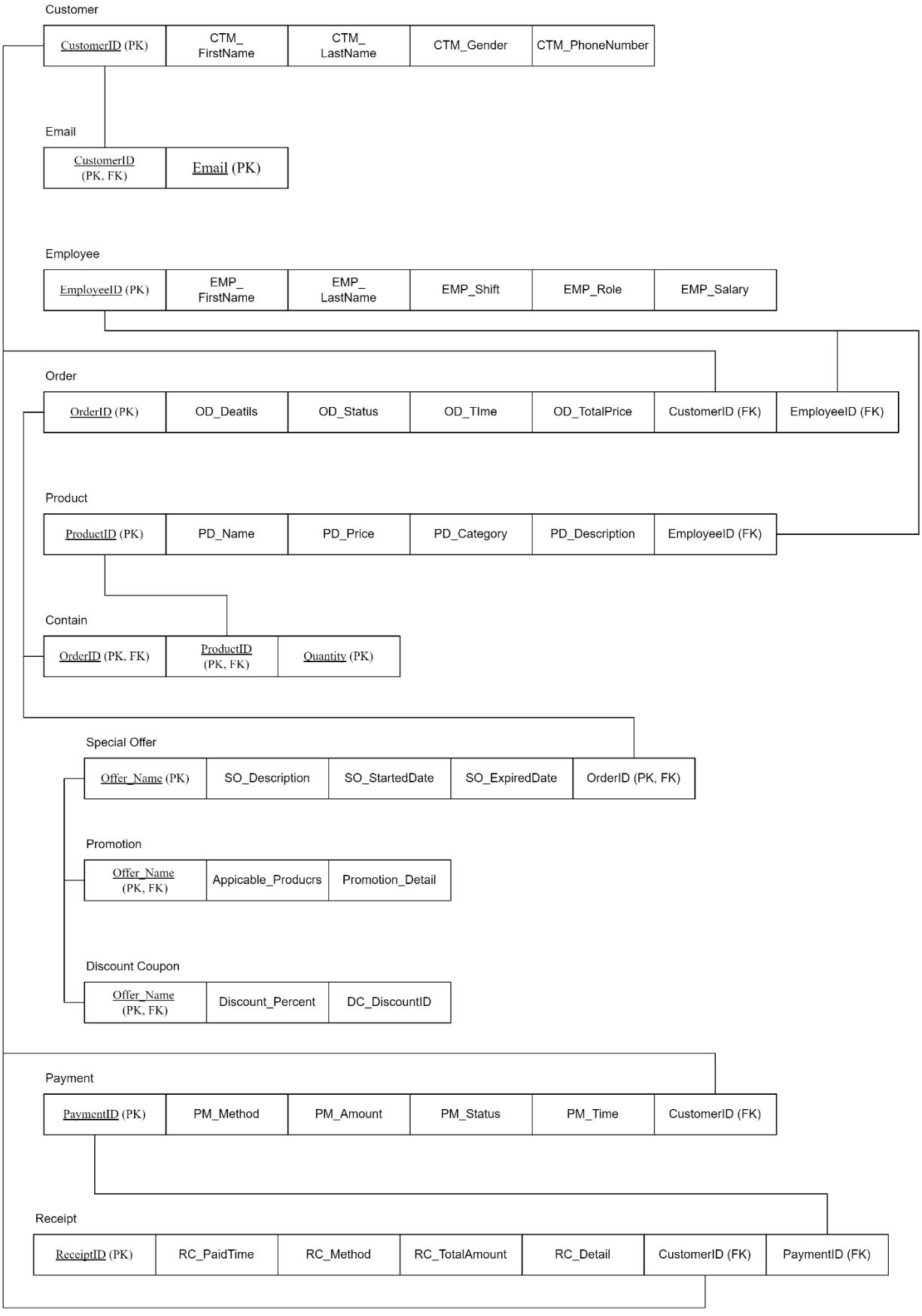
Step 7: N-ary Relationship

- No N-ary Relationship -

Step 8: Transforming Specialization or Generalization



Final Relation Schema



Data Dictionary

Table Name	Attribute Name	Contents	Type	Format	Nullable	Range	Key	FK Reference Table
Customer	CustomerID	Customer's ID	varchar(5)	xxxxx			PK	
	CTM_FirstName	Customer's First Name	varchar(20)	xxxxx				
	CTM_LastName	Customer's Last Name	varchar(20)	xxxxx				
	CTM_Gender	Customer's gender	char(1)	x	Y	M,F		
	CTM_PhoneNumber	Customer's phone number	char(10)	xxxxx	Y			
Email	CustomerID	Customer's ID	varchar(5)	xxxxx			PK, FK	CustomerID (Customer)
	Email	Email	varchar(30)	xxxxx@xxxxx.xxxx			PK	
Employee	EmployeeID	Employee's ID	int	x		1 to 23	PK	
	EMP_FirstName	Employee's first name	varchar(20)	xxxxx				
	EMP_LastName	Employee's last name	varchar(20)	xxxxx				
	EMP_Shift	Employee's shift	char(11)	xx:xx-xx:xx				
	EMP_Role	Employee's role	varchar(10)	xxxxxxx				
	EMP_Salary	Employee's salary	decimal(7,2)	12345.67				
Order	OrderID	ID of an order	char(6)	xxxxxx			PK	
	OD_Details	Order's detail	varchar(999)	xxxxx				
	OD_Status	Status of the order	char(1)	x		Y,N		
	OD_Time	Order's Date time	datetime	Yyyy-mm-dd xx:xx:xx				
	OD_TotalPrice	Order's total price	decimal(7,2)	12345.67				
	CustomerID	Customer's ID	varchar(5)	xxxxx			FK	CustomerID (Customer)

	EmployeeID	Employee's ID	int	x		1 to 23	FK	EmployeeID (Employee)
Product	ProductID	Product's ID	char(6)	xxxxxx			PK	
	PD_Name	Product's Name	varchar(20)	xxxxxxx				
	PD_Price	Product's Price	decimal(7,2)	12345.67				
	PD_Category	Product's category	varchar(10)	xxxxxx				
	PD_Description	Product's description	varchar(999)	xxxxxx	Y			
	EmployeeID	Employee's ID	int	x		1 to 23	FK	EmployeeID (Employee)
Contain	OrderID	Order's ID	char(6)	xxxxxx			PK, FK	OrderID (Order)
	ProductID	Product's ID	char(5)	xxxxx			PK,FK	ProductID (Product)
	Quantity	Product's quantity	int	x			PK	
Special Offer	OfferName	Special offer's name	varchar(30)	xxxxx			PK	
	SO_Description	Special offer's description	varchar(150)	xxxxx				
	SO_StartedDate	Special offer's starting date	date	Yyyy-mm-dd				
	SO_ExpiredDate	Special offer's expiry date	date	Yyyy-mm-dd				
	OrderID	Order's ID	char(10)	xxxxx			PK,FK	OrderID (Order)
Payment	PaymentID	Payment's ID	char(5)	xxxxx			PK	
	PM_Method	Payment's method	varchar(10)	xxxxxx				
	PM_Amount	Amount of the payment	decimal(7,2)	12345.67				
	PM_Status	Payment's status	char(1)	X		Y,N		
	PM_Time	Payment's time	datetime	Yyyy-mm-dd xx:xx:xx				
	CustomerID	Customer's ID	varchar(5)	xxxxx			FK	CustomerID (Customer)
Receipt	ReceiptID	Receipt's ID	char(7)	xxxxxxx			PK	

	RC_PaidTime	Time of payment	datetime	Yyyy-mm-dd xx:xx:xx				
	RC_Method	How customer paid	varchar(20)	xxxxx				
	RC_TotalAmount	The total amount of the receipt	decimal(7,2)	12345.67				
	RC_Detail	List of the product	varchar(100)	xxxxxx				
	CustomerID	Customer's ID	varchar(5)	xxxxx			FK	CustomerID (Customer)
	PaymentID	Payment's ID	char(5)	xxxxx			FK	PaymentID (Payment)
Promotion	OfferName	Special offer's name	varchar(30)	xxxxx			PK,FK	OfferName (Special Offer)
	ApplicableProducts	Name of applicable products	varchar(50)	xxxxx				
	PromotionDetail	Detail of the promotion	varchar(150)	xxxxx				
Discount Coupon	OfferName	Special offer's name	varchar(30)	xxxxx			PK,FK	OfferName (Special Offer)
	Discount_Percent	Number of discount percentage	int	123				
	DC_DiscountID	Discount's ID	varchar(10)	xxxxx				

Database

Contain

Table: contain

Columns:

OrderID	char(6) PK
ProductID	char(6) PK
Quantity	int PK

Customer

Table: customer

Columns:

CustomerID	varchar(5) PK
CTM_FirstName	varchar(20)
CTM_LastName	varchar(20)
CTM_Gender	char(1)
CTM_PhoneNumber	char(10)

DiscontCoupon

Table: discountcoupon

Columns:

OfferName	varchar(30) PK
DiscountPercent	int
DC_DiscountID	varchar(10)

Email

Table: email

Columns:

Email	varchar(30) PK
CustomerID	varchar(5) PK

Employee

Table: employee

Columns:

EmployeeID	int PK	char(5) PK
EMP_FirstName	varchar(20)	varchar(10)
EMP_LastName	varchar(20)	decimal(7,2)
EMP_Shift	char(11)	char(1)
EMP_Role	varchar(10)	datetime
EMP_Salary	decimal(7,2)	varchar(5)

OD

Table: od

Columns:

OrderID	char(6) PK
OD_Detail	varchar(999)
OD_Status	char(1)
OD_Time	datetime
OD_TotalPrice	decimal(9,2)
CustomerID	varchar(5)
EmployeeID	int

Payment

Table: payment

Columns:

PaymentID	char(5) PK
PM_Method	varchar(10)
PM_Amount	decimal(7,2)
PM_Status	char(1)
PM_Time	datetime
CustomerID	varchar(5)

Product

Table: product

Columns:

ProductID	char(6) PK
PD_Name	varchar(40)
PD_Price	decimal(7,2)
PD_Category	varchar(10)
PD_Description	varchar(999)
EmployeeID	int

Promotion

Table: promotion

Columns:

OfferName	varchar(30) PK
ApplicableProducts	varchar(50)
PromotionDetail	varchar(100)

Receipt

Table: receipt

Columns:

ReceiptID	char(7) PK
RC_PaidTime	datetime
RC_Method	varchar(20)
RC_TotalAmount	decimal(7,2)
RC_Detail	varchar(100)
CustomerID	varchar(5)
PaymentID	char(5)

SpecialOffer

Table: specialoffer

Columns:

OfferName	varchar(30) PK
SO_Description	varchar(150)
SO_StartedDate	date
SO_ExpiredDate	date
OrderID	char(10) PK

Data Table

Contain

	OrderID	ProductID	Quantity
	AA0008	MC2007	2
	AA0009	MC2014	2
	AA0010	MC3009	1
	BB0001	MC1002	1
	BB0001	MC1001	2
	BB0002	MC3017	1
	BB0002	MC3006	2
	BB0003	MC3018	1
	BB0003	MC3012	2
	BB0004	MC3018	1
	BB0004	MC3020	1
	BB0005	MC2019	1
	BB0005	MC2011	2
	BB0006	MC2002	1
	BB0006	MC2003	1
	BB0007	MC2015	2
	BB0007	MC2016	2
	BB0008	MC3019	1
	BB0008	MC3010	2
	BB0009	MC3003	1
	BB0009	MC3020	1
	BB0010	MC2016	1
	BB0010	MC2017	2
	CC0001	MC2003	1
	CC0001	MC2010	1
	CC0001	MC2019	1
	CC0002	MC2001	1
	CC0002	MC2020	1
	CC0002	MC2011	2
	CC0003	MC1018	1
	CC0003	MC1005	2
	CC0003	MC1012	3
	CC0004	MC3008	1
	CC0004	MC3019	1
	CC0004	MC3015	3
	CC0005	MC1020	1
	CC0005	MC1009	2
	CC0005	MC1014	2

Customer

CustomerID	CTM_FirstName	CTM_LastName	CTM_Gender	CTM_PhoneNumber
10001	Olivia	Turner	F	0812345678
10002	Thomas	Murphy	M	0823456789
10005	Noah	Reynolds	M	0834567890
10008	Aiden	Simmons	M	0845678901
10012	Lily	Coleman	F	0856789012
10051	Alex	Webb	M	0996225544
10120	Era	Rose	M	0900607788
10456	Miles	Morales	M	0817869562
10958	Elena	Foster	F	0846523896
10984	Laura	Kearney	F	0876653547
11502	Mary	Steven	F	0651452589
11987	Freddy	Fazbear	M	0958623395
13250	Selina	Wayne	F	0852596321
15842	Eimi	Fukada	F	0864852314
19999	Taylor	Hopper	F	0875162498
21616	Peter	Parker	M	0669145723
22021	Eric	King	M	0975541256
23712	Xavier	Gobling	F	0997794126
26054	John	Baller	M	0985671256
44444	Harry	Styles	M	0811455577
45781	Charlie	Puth	M	0748817982
50668	Dylan	Lenivy	M	0625148963
58075	Sorawit	Piriyapanyaporn	M	0987654321
70853	Sugonde	Knuts	M	0634617819
80808	Vichayuth	Nguyensittipong	M	0869748852

DiscountCoupon

OfferName	DiscountPercent	DC_DiscountID
Crave & Claim	40	CCFEST
FirstTime	50	FIRSTIN50
Five-Hundred	20	500HUNDRED
One-Hundred	15	100HUNDRED
Ten Percent Off	10	10PERCENT

Email

Email	CustomerID
oliviatur@gmail.com	10001
thomasmurp@outlook.com	10002
reynoldsn@hotmail.com	10005
asimmons@outlook.com	10008
colelily@yahoo.com	10012
alexthegreat@gmail.com	10051
erarose@gmail.com	10120
iamblackspider@gmail.com	10456
eldendiff@hotmail.com	10958
huntingwolf@gmail.com	10984
maryjostar@hotmail.com	11502
fnaffan2006@gmail.com	11987
batmanfangirl@gmail.com	13250
nihonbet@outlook.co.th	15842
swiftieseras@gmail.com	19999
imnotspiderman@hotmail....	21616
unkings@outlook.co.th	22021
charles.xev@gmail.com	23712
tbballerid@gmail.com	26054
itwasharry@gmail.com	44444
seeyouagain15@gmail.com	45781
blazedyaln@hotmail.com	50668
sorawitisreal@gmail.com	58075
sugonde@gmail.com	70853
vichayuthinwza@gmail.com	80808

Employee

EmployeeID	EMP_FirstName	EMP_LastName	EMP_Shift	EMP_Role	EMP_Salary
1	Jennifer	Jones	08:00-16:00	Cashier	15000.00
2	Daniel	Anderson	08:00-16:00	Chef	16000.00
3	Patricia	Smith	00:00-08:00	Janitor	13000.00
4	Jeremy	White	16:00-00:00	Cashier	15000.00
5	Mike	Schmidt	00:00-08:00	Chef	14000.00
6	Harvey	Solanke	16:00-00:00	Chef	14000.00
7	Robert	Downing	16:00-00:00	Chef	13000.00
8	Chinnawat	Sooksawat	08:00-16:00	Cashier	15000.00
9	Term	Mongkhonwatt	00:00-08:00	Chef	16000.00
10	Wasunthara	Pongpinich	16:00-00:00	Cashier	14000.00
11	Maggy	Max	08:00-16:00	Cashier	16000.00
12	Jui	Versteppen	16:00-00:00	Chef	15000.00
13	Kate	Seaway	16:00-00:00	Janitor	12000.00
14	Yuji	Itadori	00:00-08:00	Cashier	16000.00
15	James	Maloney	16:00-00:00	Cashier	15000.00
16	Pran	Laohachoti	00:00-08:00	Chef	13000.00
17	Abby	Chester	08:00-16:00	Janitor	13000.00
18	Arthit	Suksom	16:00-00:00	Janitor	16000.00
19	Yingyai	Jaidee	08:00-16:00	Chef	15000.00
20	Kamol	Klomdee	08:00-16:00	Chef	13000.00
21	Markus	Brinly	00:00-08:00	Janitor	15000.00
22	Mark	Fischbach	00:00-08:00	Cashier	14000.00
23	Emily	Bloom	08:00-16:00	Janitor	13000.00

OD

OrderID	OD_Detail	OD_Status	OD_Time	OD_TotalPrice	CustomerID	EmployeeID
AA0001	MC0002 : 2	Y	2023-02-15 09:45:17	200.00	10001	1
AA0002	MC0001 : 1	Y	2023-11-03 18:20:42	175.00	10002	4
AA0003	MC0020 : 1	Y	2023-06-10 14:34:29	150.00	10005	1
AA0004	MC0003 : 3	Y	2023-03-21 11:52:53	120.00	10008	8
AA0005	MC0012 : 2	Y	2023-09-05 16:45:12	160.00	10012	15
AA0006	MC0015 : 2	Y	2023-01-23 08:15:36	50.00	10120	11
AA0007	MC0004 : 4	Y	2023-05-12 20:23:24	500.00	10051	10
AA0008	MC0007 : 2	Y	2023-08-28 13:10:18	180.00	10984	8
AA0009	MC0014 : 2	Y	2023-07-07 10:36:45	100.00	50668	11
AA0010	MC0009 : 1	Y	2023-10-02 17:40:37	155.00	80808	15
BB0001	MC0001 : ...	Y	2023-02-28 07:55:21	450.00	21616	14
BB0002	MC0006 : ...	Y	2023-04-17 22:30:48	225.00	11987	10
BB0003	MC0012 : ...	Y	2023-06-25 19:15:09	195.00	22021	4
BB0004	MC0020 : ...	Y	2023-03-06 16:27:57	185.00	58075	10
BB0005	MC0011 : ...	Y	2023-09-20 12:35:29	320.00	10958	1
BB0006	MC0003 : ...	Y	2023-01-15 14:50:08	140.00	13250	4
BB0007	MC0016 : ...	Y	2023-05-03 09:41:33	110.00	19999	8
BB0008	MC0010 : ...	Y	2023-07-24 18:55:16	250.00	26054	15
BB0009	MC0020 : ...	Y	2023-10-10 21:20:43	190.00	44444	15
BB0010	MC0017 : ...	Y	2023-02-03 15:30:26	100.00	10456	11
CC0001	MC0003 : ...	Y	2023-04-22 10:59:59	180.00	70853	1
CC0002	MC0011 : ...	Y	2023-11-05 08:40:14	615.00	23712	1
CC0003	MC0012 : ...	Y	2023-03-15 03:25:39	515.00	45781	22
CC0004	MC0008 : ...	Y	2023-08-15 23:45:51	204.00	11502	10
CC0005	MC0020 : ...	Y	2023-09-10 06:50:27	560.00	15842	22

Payment

PaymentID	PM_Method	PM_Amount	PM_Status	PM_Time	CustomerID
CA001	Cash	150.00	Y	2023-06-10 14:35:49	10005
CA002	Cash	100.00	Y	2023-07-07 10:38:02	50668
CA003	Cash	250.00	Y	2023-07-24 18:56:32	26054
CA004	Cash	474.00	Y	2023-03-15 03:27:02	45781
CC001	CreditCard	105.00	Y	2023-11-03 18:23:23	10002
CC002	CreditCard	500.00	Y	2023-05-12 20:24:14	10051
CC003	CreditCard	238.00	Y	2023-02-28 07:56:36	21616
CC004	CreditCard	225.00	Y	2023-04-17 22:32:24	11987
CC005	CreditCard	180.00	Y	2023-04-22 11:01:02	70853
CC006	CreditCard	615.00	Y	2023-06-05 08:42:35	23712
QR001	QRcode	200.00	Y	2023-02-15 09:46:00	10001
QR002	QRcode	120.00	Y	2023-03-21 11:54:03	10008
QR003	QRcode	160.00	Y	2023-09-05 16:45:12	10012
QR004	QRcode	38.00	Y	2023-01-23 08:16:58	10120
QR005	QRcode	90.00	Y	2023-08-28 13:11:00	10984
QR006	QRcode	155.00	Y	2023-10-02 17:42:26	80808
QR007	QRcode	178.00	Y	2023-06-25 19:16:09	22021
QR008	QRcode	99.00	Y	2023-03-06 16:29:20	58075
QR009	QRcode	272.00	Y	2023-09-20 12:36:26	10958
QR010	QRcode	140.00	Y	2023-01-15 14:51:18	13250
QR011	QRcode	110.00	Y	2023-05-03 09:42:13	19999
QR012	QRcode	171.00	Y	2023-10-10 21:22:12	44444
QR013	QRcode	100.00	Y	2023-02-03 15:32:13	10456
QR014	QRcode	204.00	Y	2023-08-15 23:46:49	11502
QR015	QRcode	448.00	Y	2023-09-10 06:51:57	15842

Product

ProductID	PD_Name	PD_Price	PD_Category	PD_Description	EmployeeID
MC2004	Big Mac	125.00	Burger	A very large burger has everything inside	2
MC2005	McFried Chicken	120.00	Burger	Burger with fried chicken and cabbage inside	19
MC2006	Cheeseburger	95.00	Burger	Burger with fried beef and cheese inside	20
MC2007	Filet-O-Fish	90.00	Burger	Burger with fried fish and cheese	2
MC2008	McChicken	99.00	Burger	Burger with chicken inside	19
MC2009	Double Cheeseburger	155.00	Burger	Double size of cheeseburger	20
MC2010	Samurai Pork Burger	110.00	Burger	Burger with fried pork and samurai sauce inside	2
MC2011	Double Big Mac	145.00	Burger	Double size of Big Mac Burger	19
MC2012	Chic stick	80.00	Fried	Chicken stick fried	20
MC2013	McSpicy Chicken Burger	115.00	Burger	Burger with Chicken spicy inside	2
MC2014	McWing	50.00	Fried	Chicken wing fried	19
MC2015	Corn Pie	25.00	Dessert	Pie with boiled corn inside	20
MC2016	Chicken Pie	30.00	Dessert	Pie with chicken inside	2
MC2017	Strawberry Sundae	35.00	Dessert	An ice cream strawberry flavor	19
MC2018	Chocolate Sundae	35.00	Dessert	An ice cream chocolate flavor	20
MC2019	Coca-cola	30.00	Beverage	A soft drink with cola flavor	2
MC2020	Happy Meal	150.00	Happy Meal	In the box it contains Burger, Nugget, and a d...	19
MC3001	Beef Burger	175.00	Burger	Burger with beef inside	6
MC3002	McNuggets	100.00	Fried	A chicken nugget	7
MC3003	French Fries	40.00	Fried	A fried Potato cut in rectangle shape	12
MC3004	Big Mac	125.00	Burger	A very large burger has everything inside	6
MC3005	McFried Chicken	120.00	Burger	Burger with fried chicken and cabbage inside	7
MC3006	Cheeseburger	95.00	Burger	Burger with fried beef and cheese inside	12
MC3007	Filet-O-Fish	90.00	Burger	Burger with fried fish and cheese	6
MC3008	McChicken	99.00	Burger	Burger with chicken inside	7
MC3009	Double Cheeseburger	155.00	Burger	Double size of cheeseburger	12
MC3010	Samurai Pork Burger	110.00	Burger	Burger with fried pork and samurai sauce inside	6
MC3011	Double Big Mac	145.00	Burger	Double size of Big Mac Burger	7
MC3012	Chic stick	80.00	Fried	Chicken stick fried	12
MC3013	McSpicy Chicken Burger	115.00	Burger	Burger with Chicken spicy inside	6
MC3014	McWing	50.00	Fried	Chicken wing fried	7
MC3015	Corn Pie	25.00	Dessert	Pie with boiled corn inside	12
MC3016	Chicken Pie	30.00	Dessert	Pie with chicken inside	6
MC3017	Strawberry Sundae	35.00	Dessert	An ice cream strawberry flavor	7
MC3018	Chocolate Sundae	35.00	Dessert	An ice cream chocolate flavor	12
MC3019	Coca-cola	30.00	Beverage	A soft drink with cola flavor	6
MC3020	Happy Meal	150.00	Happy Meal	In the box it contains Burger, Nugget, and a d...	7

Promotion

OfferName	ApplicableProducts	PromotionDetail
69 Hamset	Hamburger	Hamburger set 69 baht
Dessert Snack 1	Pie	Pie (any flavor) for only 19 baht
Dessert Snack 2	Sundae	Sundae (any flavor) for only 19 baht
Fish & Chicken	Hamburger	Hamburger set with an addition of fried chicken ...
Super Supper	Happy Meal	Happy Meal with sundae (any flavor) for only 9...

Receipt

ReceiptID	RC_PaidTime	RC_Method	RC_TotalAmount	RC_Detail	CustomerID	PaymentID
AA0006	2023-01-23 08:16:58	QRcode	38.00	MC0015 : 2	10120	QR004
AA0007	2023-05-12 20:24:14	CreditCard	500.00	MC0004 : 4	10051	CC002
AA0008	2023-08-28 13:11:00	QRcode	90.00	MC0007 : 2	10984	QR005
AA0009	2023-07-07 10:38:02	Cash	100.00	MC0014 : 2	50668	CA002
AA0010	2023-10-02 17:42:26	QRcode	155.00	MC0009 : 1	80808	QR006
BB0001	2023-02-28 07:56:36	CreditCard	238.00	MC0001 : ...	21616	CC003
BB0002	2023-04-17 22:32:24	CreditCard	225.00	MC0006 : ...	11987	CC004
BB0003	2023-06-25 19:16:09	QRcode	178.00	MC0012 : ...	22021	QR007
BB0004	2023-03-06 16:29:20	QRcode	99.00	MC0020 : ...	58075	QR008
BB0005	2023-09-20 12:36:26	QRcode	272.00	MC0011 : ...	10958	QR009
BB0006	2023-01-15 14:51:18	QRcode	140.00	MC0003 : ...	13250	QR010
BB0007	2023-05-03 09:42:13	QRcode	110.00	MC0016 : ...	19999	QR011
BB0008	2023-07-24 18:56:32	Cash	250.00	MC0010 : ...	26054	CA003
BB0009	2023-10-10 21:22:12	QRcode	171.00	MC0020 : ...	44444	QR012
BB0010	2023-02-03 15:32:13	QRcode	100.00	MC0017 : ...	10456	QR013
CC0001	2023-04-22 11:01:02	CreditCard	180.00	MC0003 : ...	70853	CC005
CC0002	2023-06-05 08:42:35	CreditCard	615.00	MC0011 : ...	23712	CC006
CC0003	2023-03-15 03:27:02	Cash	474.00	MC0012 : ...	45781	CA004
CC0004	2023-08-15 23:46:49	QRcode	204.00	MC0008 : ...	11502	QR014
CC0005	2023-09-10 06:51:57	QRcode	448.00	MC0020 : ...	15842	QR015

SpecialOffer

OfferName	SO_Description	SO_StartedDate	SO_ExpiredDate	OrderID
69 Hamset	Hamburger set 69 baht	2023-01-01	2023-06-30	BB0001
Crave & Claim	Saves up to 40% during Thanksgiving	2023-11-01	2023-11-30	AA0002
Dessert Snack 1	Pie (any flavor) for only 19 baht	2023-01-01	2023-02-02	AA0006
Dessert Snack 2	Sundae (any flavor) for only 19 baht	2023-06-01	2023-10-31	BB0003
FirstTime	For the first time customer	2023-01-01	2023-12-31	AA0008
Fish & Chicken	Hamburger set with an addition of fried chicken ...	2023-03-01	2023-04-01	CC0003
Five-Hundred	Twenty percent discount from total price	2023-10-01	2023-12-31	CC0005
One-Hundred	Fifteen percent discount from total price	2023-07-01	2023-10-01	BB0005
Super Supper	Happy Meal with sundae (any flavor) for only 9...	2023-03-01	2023-04-01	BB0004
Ten Percent Off	Ten percent discount from total price	2023-09-01	2023-12-01	BB0009

Database Query

Table 1

Report: The List of Customer who used QRcode method to pay the order	
Objective	To display information on customers who used QRcode method to paid the order

SQL Command

```
select c.CustomerID, concat(c.CTM_FirstName, " ", c.CTM_LastName) as 'Customer Name'
from Customer c
join Payment p on c.CustomerID = p.CustomerID
where p.PM_Method = 'QRcode'
order by c.CustomerID;
```

Query Result:

CustomerID	Customer Name
10001	Olivia Turner
10008	Aiden Simmons
10012	Lily Coleman
10120	Era Rose
10456	Miles Morales
10958	Elena Foster
10984	Laura Kearney
11502	Mary Steven
13250	Selina Wayne
15842	Eimi Fukada
19999	Taylor Hopper
22021	Eric King
44444	Harry Styles
58075	Sorawit Piriyapanyaporn
80808	Vichayuth Nguyensittipong

Table 2

Report: The list of Employee who has janitor role	
Objective	To display information on employees who is janitor

SQL Command

```
select e.EmployeeID, concat(e.EMP_FirstName, " ", e.EMP_LastName) as 'Employee Name',
e.EMP_Shift as 'Shift', e.EMP_Salary as 'Salary' from Employee e
where e.EMP_Role = 'Janitor';
```

Query Result:

EmployeeID	Employee Name	Shift	Salary
3	Patricia Smith	00:00-08:00	13000.00
13	Kate Seaway	16:00-00:00	12000.00
17	Abby Chester	08:00-16:00	13000.00
18	Arthit Suksom	16:00-00:00	16000.00
21	Markus Brinly	00:00-08:00	15000.00
23	Emily Bloom	08:00-16:00	13000.00

Table 3

Report: The list of Customer who enter to buy lunch	
Objective	To display information on customers who buy lunch (11-13 o'clock)

SQL Command

```
select c.CustomerID, concat(c.CTM_FirstName, " ", c.CTM_LastName) as 'Customer Name',
e.Email as 'Customer Email', time(o.OD_Time) as 'Time' from Customer c
join Email e on c.CustomerID = e.CustomerID join OD o on c.CustomerID = o.CustomerID
where time(o.OD_Time) between '11:00:00' and '13:00:00';
```

Query Result:

CustomerID	Customer Name	Customer Email	Time
10008	Aiden Simmons	asimmons@outlook.com	11:52:53
10958	Elena Foster	eldendiff@hotmail.com	12:35:29

Table 4

Report: The number of Customers received by each cashier employee	
Objective	To display the number on customers received by cashier

SQL Command

```
select e.EmployeeID, concat(e.EMP_FirstName, " ", e.EMP_LastName) as 'Employee Name',
e.EMP_Shift as 'Shift', count(o.OrderID) as 'Number of Customer' from Employee e
join OD o on e.EmployeeID = o.EmployeeID
group by EmployeeID;
```

Query Result:

EmployeeID	Employee Name	Shift	Number of Customer
1	Jennifer Jones	08:00-16:00	5
4	Jeremy White	16:00-00:00	3
8	Chinnawat Sooksawat	08:00-16:00	3
10	Wasunthara Pongpinich	16:00-00:00	4
11	Maggy Max	08:00-16:00	3
14	Yuji Itadori	00:00-08:00	1
15	James Maloney	16:00-00:00	4
22	Mark Fischbach	00:00-08:00	2

Table 5

Report: The maximum price of each payment method	
Objective	To display the highest price on each payment method

SQL Command

```
select PM_Method as 'Method', max(PM_Amount) as Amount from Payment
group by PM_Method;
```

Query Result:

Method	Amount
Cash	474.00
CreditCard	615.00
QRcode	448.00

Table 6

Report: The number of Customer who order to each category of product	
Objective	To collect which category is bought the most by displaying the number how many each category is bought by customers

SQL Command

```
select p.PD_Category, count(p.PD_Category) as 'Number of Customer' from Product p
join Contain c on p.ProductID = c.ProductID
group by P.PD_Category
order by count(p.PD_Category) desc;
```

Query Result:

PD_Category	Number of Customer
Burger	14
Fried	12
Dessert	10
Happy Meal	5
Beverage	4

Table 7

Report: The list of Customer who order burger	
Objective	To display information of customer who order burger and what burger that they order

SQL Command

```
select c.CustomerID, concat(c.CTM_FirstName, " ", c.CTM_LastName) as 'Customer Name',
e.Email as 'Customer Email', p.PD_Name as 'Burger Menu Name', ct.Quantity from Customer
c
join Email e on c.CustomerID = e.CustomerID join OD o on e.CustomerID = o.CustomerID
join Contain ct on o.OrderID = ct.OrderID join Product p on ct.ProductID = p.ProductID
where p.PD_Category = 'Burger'
order by p.PD_Name;
```

Query Result:

CustomerID	Customer Name	Customer Email	Burger Menu Name	Quantity
21616	Peter Parker	imnotspiderman@hotmail.com	Beef Burger	2
23712	Xavier Gobling	charles.xev@gmail.com	Beef Burger	1
10002	Thomas Murphy	thomasmurp@outlook.com	Beef Burger	1
10051	Alex Webb	alexthegreat@gmail.com	Big Mac	4
11987	Freddy Fazbear	fnaffan2006@gmail.com	Cheeseburger	2
10958	Elena Foster	eldendiff@hotmail.com	Double Big Mac	2
23712	Xavier Gobling	charles.xev@gmail.com	Double Big Mac	2
15842	Eimi Fukada	nihonbet@outlook.co.th	Double Cheeseburger	2
80808	Vichayuth Nguyensittipong	vichayuthinwza@gmail.com	Double Cheeseburger	1
10984	Laura Kearney	huntingwolf@gmail.com	Filet-O-Fish	2
11502	Mary Steven	maryjostar@hotmail.com	McChicken	1
45781	Charlie Puth	seeyouagain15@gmail.com	McFried Chicken	2
70853	Sugonde Knuts	sugonde@gmail.com	Samurai Pork Burger	1
26054	John Baller	tbballerid@gmail.com	Samurai Pork Burger	2

Table 8

Report: The list of all product and its total amount purchased

Objective	To find which product is bought the most

SQL Command

```
select p.PD_Name as 'Product Name', count(p.PD_Name) as 'Number of Customer',
sum(c.Quantity) as 'Quantity' from Product p
join Contain c on p.ProductID = c.ProductID
group by p.PD_Name
order by sum(c.Quantity) desc;
```

Query Result:

Product Name	Number of Customer	Quantity
Chic stick	3	7
Corn Pie	3	7
French Fries	4	6
Happy Meal	5	5
McNuggets	3	4
Beef Burger	3	4
Big Mac	1	4
McWing	2	4
Coca-cola	4	4
Double Big Mac	2	4
Double Cheeseburger	2	3
Strawberry Sundae	2	3
Chocolate Sundae	3	3
Chicken Pie	2	3
Samurai Pork Burger	2	3
Filet-O-Fish	1	2
Cheeseburger	1	2
McFried Chicken	1	2
McChicken	1	1

Table 9

Report: The average of products purchased per customer	
Objective	To show the average number of product purchased per customer
SQL Command	
select avg(c1.totalproduct) as 'Average Number of product purchased by customer' from (select count(ProductID) as totalproduct from Contain group by OrderID) c1;	
Query Result:	
Average Number of product purchased by customer 1.8000	

Table 10

Report: Show the average number of product taken care per chef employee	
Objective	To show the average number of product taken care per chef
SQL Command	
select avg(p1.totalproduct) as 'Average Number of product taken care by chef' from (select count(ProductID) as totalproduct from Product group by EmployeeID) p1;	
Query Result:	
Average Number of product taken care by chef 6.6667	

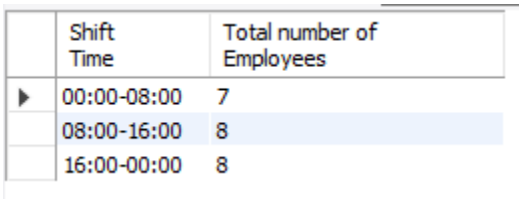
Table 11

Report: List number of total employees in each shift	
Objective	To find total employees work in each shift including shift time

SQL Command

```
select EMP_Shift as "Shift Time",count(EmployeeID) as 'Total number of Employees'
from Employee
group by EMP_Shift
order by EMP_Shift asc;
```

Query Result:



Shift Time	Total number of Employees
00:00-08:00	7
08:00-16:00	8
16:00-00:00	8

Table 12

Report: Show the most 10 ordered menu in Mcdonald's

Objective	To display 10 most ordered product in McDonald's

SQL Command

```
select p.PD_Name as "Product Name" , sum(c.quantity ) as "Total Number" from Contain c
join Product p on c.ProductID = p.ProductID
group by p.PD_Name
order by sum(quantity ) desc
limit 10;
```

Query Result:

Product Name	Total Number
Chic stick	7
Corn Pie	7
French Fries	6
Happy Meal	5
McNuggets	4
Beef Burger	4
Big Mac	4
Coca-cola	4
McWing	4
Double Big Mac	4

Table 13

Report: Show all special offers that do not expire.	
Objective	Display all special offers that do not expire including its description.

SQL Command

```
select OfferName , SO_Description , SO_ExpiredDate as "Expired Date" from SpecialOffer s
where curdate() < SO_ExpiredDate
order by SO_ExpiredDate asc;
```

Query Result:

OfferName	SO_Description	Expired Date
Crave & Claim	Saves up to 40% during Thanksgiving	2023-11-30
Ten Percent Off	Ten percent discount from total price	2023-12-01
FirstTime	For the first time customer	2023-12-31
Five-Hundred	Twenty percent discount from total price	2023-12-31

Table 14

Report: Show the average salary of all Employee	
Objective	To display average salary of all employee for other to making decision

SQL Command

```
select avg(EMP_Salary) as AverageSalary from employee;
```

Query Result:

Average Salary of all Employee
14391.30

Table 15

Report: Show total number for each payment method	
Objective	To display the total number for each payment method created by customers

SQL Command

```
select PM_Method as "Payment Method",count(PM_Method) as "Total Number"  from
Payment
where PM_Status = "Y"
group by PM_Method;
```

Query Result:

Payment Method	Total Number
Cash	4
CreditCard	6
QRcode	15

Table 16

Report: List number of orders that occur in each shift	
Objective	To display the time that most customers are making orders

SQL Command

```
select e.EMP_Shift,count(e.EMP_Shift) as "Numbers of Order" from OD o
join Employee e on o.EmployeeID = e.EmployeeID
group by e.EMP_Shift;
```

Query Result:

EMP_Shift	Numbers of Order
08:00-16:00	11
16:00-00:00	11
00:00-08:00	3

Table 17

Report: Show average of total amount (money) per one customer	
Objective	To display average of receipt amount that purchased by customer

SQL Command

```
select round(avg(rr.Average),0) as "Average Total Price purchased by one Customer(Baht)"
from (select c.CustomerID ,sum(RC_TotalAmount) as Average from Receipt r
join Customer c on r.CustomerID = c.CustomerID
group by c.CustomerID) rr;
```

Query Result:

	Average Total Price purchased by one Customer(Baht)
▶	213

Table 18

Report: Show the top 5 favorite menus for females	
Objective	To display 5 favorite menu for female customer

SQL Command

```
select p.PD_Name as "Product Name", sum(c.quantity) as "Total Number" from Contain c
join Product p on c.ProductID = p.ProductID
join OD o on o.OrderID = c.OrderID
join Customer cu on o.CustomerID  = cu.CustomerID
where CTM_Gender = "F"
group by p.PD_Name
order by sum(c.quantity) desc
limit 5;
```

Query Result:

	Product Name	Total Number
▶	Corn Pie	5
	Double Big Mac	4
	McNuggets	3
	Chic stick	2
	Filet-O-Fish	2

Table 19

Report: Show the top 5 favorite menus for males	
Objective	To display 5 favorite menu for male customer

SQL Command

```
select p.PD_Name as "Product Name", sum(c.quantity) as "Total Number" from Contain c
join Product p on c.ProductID = p.ProductID
join OD o on o.OrderID = c.OrderID
join Customer cu on o.CustomerID  = cu.CustomerID
where CTM_Gender = "M"
group by p.PD_Name
order by sum(c.quantity) desc
limit 5;
```

Query Result:

Product Name	Total Number
French Fries	5
Chic stick	5
Big Mac	4
Beef Burger	3
Strawberry Sundae	3

Table 20

Report: Show list of product bought by customer in time that customer ordering most	
Objective	To display all the menus that customers buy in time that customer paid most.

SQL Command

```
select  p.PD_Name as "Product Name",sum(c.quantity) as "Total quantity" from Contain c
join Product p on c.ProductID = p.ProductID
join OD o on c.OrderID = o.OrderID
join Employee e on p.EmployeeID = e.EmployeeID
where e.EMP_Shift = (select e.EMP_Shift from Contain c
join Product p on c.ProductID = p.ProductID
join Employee e on p.EmployeeID = e.EmployeeID
group by e.EMP_Shift
order by sum(c.quantity * p.PD_Price) desc
limit 1)
group by p.PD_Name
order by sum(c.quantity) desc;
```

Query Result:

Product Name	Total quantity
French Fries	5
Double Big Mac	4
Corn Pie	4
Chicken Pie	3
McNuggets	3
Filet-O-Fish	2
Coca-cola	2
McWing	2
Strawberry Sundae	2
Happy Meal	2
Beef Burger	1
Samurai Pork Burger	1

Table 21

Report: Show a list of employee who works during the night shift	
Objective	To display information on employees who work during the night shift (00:00-08:00)

SQL Command

```
select EmployeeID, concat(EMP_FirstName, " ", EMP_LastName) as "Employee Name",
EMP_Role as "Role" from Employee
where EMP_Shift = '00:00-08:00'
```

Query Result:

EmployeeID	Employee Name	Role
3	Patricia Smith	Janitor
5	Mike Schmidt	Chef
9	Term Mongkhonwatt	Chef
14	Yuji Itadori	Cashier
16	Pran Laohachoti	Chef
21	Markus Brinly	Janitor
22	Mark Fischbach	Cashier

Table 22

Report: The list of customer who is female	
Objective	To display information on customer who is female

SQL Command

```
select CustomerID, concat(CTM_FirstName, " ", CTM_LastName) as "Customer Name" from
Customer
where CTM_Gender = 'F'
order by CTM_FirstName;
```

Query Result:

CustomerID	CTM_FirstName	CTM_LastName	CTM_Gender	CTM_PhoneNumber
15842	Eimi	Fukada	F	0864852314
10958	Elena	Foster	F	0846523896
10984	Laura	Kearney	F	0876653547
10012	Lily	Coleman	F	0856789012
11502	Mary	Steven	F	0651452589
10001	Olivia	Turner	F	0812345678
13250	Selina	Wayne	F	0852596321
19999	Taylor	Hopper	F	0875162498
23712	Xavier	Gobling	F	0997794126

Table 23

Report: The highest price of a product in each category	
Objective	To find the highest price of each product category
SQL Command	
select PD_Category as "Category", max(PD_Price) as "Price" from Product group by PD_Category;	
Query Result:	

Category	Price
Burger	175.00
Fried	100.00
Dessert	35.00
Beverage	30.00
Happy Meal	150.00

Table 24

Report: List a number of employee based on a salary	
Objective	To find how many employees are in each salary range
SQL Command	
select EMP_Salary as "Salary", count(EmployeeID) as "No. of Employee" from Employee group by EMP_Salary order by EMP_Salary;	
Query Result:	

Salary	No. of Employee
12000.00	1
13000.00	6
14000.00	4
15000.00	7
16000.00	5

Table 25

Report: The number of employee in each role	
Objective	To show a number of employee in each role
SQL Command	
select EMP_Role as "Role", count(EmployeeID) as "No. of Employee" from Employee group by EMP_Role;	
Query Result:	

Role	No. of Employee
Cashier	8
Chef	9
Janitor	6

Table 26

Report: Amount of total quantity of the product that has been sold in each category	
Objective	To find which product category has been sold the most quantity
SQL Command	
select p.PD_Category, sum(c.Quantity) as 'Quantity' from OD o left join Contain c on o.OrderID = c.OrderID left join Product p on c.ProductID = p.ProductID group by p.PD_Category;	
Query Result:	

PD_Category	Quantity
Burger	25
Fried	21
Dessert	16
Happy Meal	5
Beverage	4

Table 27

Report: List of customer who buys dessert	
Objective	To display information on customer who buys dessert

SQL Command

```
select distinct c.CustomerID, concat(c.CTM_FirstName, " ", c.CTM_LastName) as "Customer
Name", p.PD_Name as "Product Name" from Customer c
left join OD o on c.CustomerID = o.CustomerID
left join Contain cn on o.OrderID = cn.OrderID
left join Product p on cn.ProductID = p.ProductID
where p.PD_category = "Dessert"
order by c.CustomerID;
```

Query Result:

CustomerID	Customer Name	Product Name
10120	Era Rose	Corn Pie
10456	Miles Morales	Chicken Pie
10456	Miles Morales	Strawberry Sundae
11502	Mary Steven	Corn Pie
11987	Freddy Fazbear	Strawberry Sundae
19999	Taylor Hopper	Corn Pie
19999	Taylor Hopper	Chicken Pie
22021	Eric King	Chocolate Sundae
45781	Charlie Puth	Chocolate Sundae
58075	Sorawit Piriyapanyaporn	Chocolate Sundae

Table 28

Report: Average number of order taken care by each cashier	
Objective	To find the average number of order taken care by a cashier

SQL Command

```
select avg(aa.num) as "Average Number of Order Taken Care by Each Employee"
from (select count(OrderID) as num from OD
group by EmployeeID) aa;
```

Query Result:

Average Number of Order Taken Care by Each Employee
3.1250

Table 29

Report: List of employees who have salary more than average	
Objective	To display the information of employees who have salary more than average

SQL Command

```
select * from Employee
where EMP_Salary > (select avg(EMP_Salary) from Employee);
```

Query Result:

EmployeeID	EMP_FirstName	EMP_LastName	EMP_Shift	EMP_Role	EMP_Salary
1	Jennifer	Jones	08:00-16:00	Cashier	15000.00
2	Daniel	Anderson	08:00-16:00	Chef	16000.00
4	Jeremy	White	16:00-00:00	Cashier	15000.00
8	Chinnawat	Sooksawat	08:00-16:00	Cashier	15000.00
9	Term	Mongkhonwatt	00:00-08:00	Chef	16000.00
11	Maggy	Max	08:00-16:00	Cashier	16000.00
12	Jui	Versteppen	16:00-00:00	Chef	15000.00
14	Yuji	Itadori	00:00-08:00	Cashier	16000.00
15	James	Maloney	16:00-00:00	Cashier	15000.00
18	Arthit	Suksom	16:00-00:00	Janitor	16000.00
19	Yingyai	Jaidee	08:00-16:00	Chef	15000.00
21	Markus	Brinly	00:00-08:00	Janitor	15000.00

Table 30

Report: List the total number of product quantity sold in each shift	
Objective	To find the time that sells the most product quantity

SQL Command

```
select e.EMP_Shift as "Shift" , sum(Quantity) as "Quantity of a Product" from Contain c
left join OD o on c.OrderID = o.OrderID
left join Employee e on o.EmployeeID = e.EmployeeID
group by e.EMP_Shift
order by sum(Quantity) desc;
```

Query Result:

Shift	Quantity of a Product
08:00-16:00	29
16:00-00:00	28
00:00-08:00	14

Table 31

Report: List all the employees and their role	
Objective	To show all of the employee's name and their role, sorting by shifting time

SQL Command

```
select EMP_FirstName as First_name , EMP_LastName as Last_name , EMP_Role as Role ,
EMP_shift as Time from Employee
order by EMP_shift asc;
```

Query Result:

First_name	Last_name	Role	Time
Patricia	Smith	Janitor	00:00-08:00
Mike	Schmidt	Chef	00:00-08:00
Term	Mongkhonwatt	Chef	00:00-08:00
Yuji	Itadori	Cashier	00:00-08:00
Pran	Laohachoti	Chef	00:00-08:00
Markus	Brinly	Janitor	00:00-08:00
Mark	Fischbach	Cashier	00:00-08:00
Jennifer	Jones	Cashier	08:00-16:00
Daniel	Anderson	Chef	08:00-16:00
Chinnawat	Sooksawat	Cashier	08:00-16:00
Maggy	Max	Cashier	08:00-16:00
Abby	Chester	Janitor	08:00-16:00
Yingyai	Jaidee	Chef	08:00-16:00
Kamol	Klomdee	Chef	08:00-16:00
Emily	Bloom	Janitor	08:00-16:00
Jeremy	White	Cashier	16:00-00:00
Harvey	Solanke	Chef	16:00-00:00
Robert	Downing	Chef	16:00-00:00
Wasunthara	Pongpinich	Cashier	16:00-00:00
Jui	Versteppen	Chef	16:00-00:00
Kate	Seaway	Janitor	16:00-00:00
James	Maloney	Cashier	16:00-00:00
Arthit	Suksom	Janitor	16:00-00:00

Table 32

Report: List all the products and their total number of purchases

Objective	To show every product that has been purchased

SQL Command

```
select P.productID as ID , P.PD_Name as Name , P.PD_Price as Price , P.PD_Category as
Category , sum(C.quantity) as Total from Product P
left join Contain C
on P.ProductID = C.ProductID
group by P.PD_name
order by ID;
group by P.productID ,P.PD_name
order by Name , ID;
```

Query Result:

ID	Name	Price	Category	Total
MC1001	Beef Burger	175.00	Burger	4
MC1002	McNuggets	100.00	Fried	4
MC1003	French Fries	40.00	Fried	6
MC1004	Big Mac	125.00	Burger	4
MC1005	McFried Chicken	120.00	Burger	2
MC1006	Cheeseburger	95.00	Burger	2
MC1007	Filet-O-Fish	90.00	Burger	2
MC1008	McChicken	99.00	Burger	1
MC1009	Double Cheeseburger	155.00	Burger	3
MC1010	Samurai Pork Burger	110.00	Burger	3
MC1011	Double Big Mac	145.00	Burger	4
MC1012	Chic stick	80.00	Fried	7
MC1013	McSpicy Chicken Burger	115.00	Burger	NULL
MC1014	McWing	50.00	Fried	4
MC1015	Corn Pie	25.00	Dessert	7
MC1016	Chicken Pie	30.00	Dessert	3
MC1017	Strawberry Sundae	35.00	Dessert	3
MC1018	Chocolate Sundae	35.00	Dessert	3
MC1019	Coca-cola	30.00	Beverage	4
MC1020	Happy Meal	150.00	Happy M...	5

Table 33

Report: List the employees who have the most salary	
Objective	To show which employees have the most salary

SQL Command

```
select concat(EMP_FirstName,' ',EMP_LastName) as Name , EMP_Role as Role ,
EMP_Salary as Salary From Employee
where EMP_Salary = (select max(EMP_Salary) from Employee);
```

Query Result:

Name	Role	Salary
Daniel Anderson	Chef	16000.00
Term Mongkhonwatt	Chef	16000.00
Maggy Max	Cashier	16000.00
Yuji Itadori	Cashier	16000.00
Arthit Suksom	Janitor	16000.00

Table 34

Report: List all the customers who pay by QRCode and purchase more than 1 product

Objective	Show a list of customers who use QRCode to pay and buy more than 1 product

SQL Command

```
select R.ReceiptID, R.RC_PaidTime, R.RC_Method, R.RC_TotalAmount, R.RC_Detail  from
Receipt R
inner join Customer Cu
on R.CustomerID = R.CustomerID
inner join Payment P
on P.PaymentID = R.PaymentID
join OD O
on O.CustomerID = R.CustomerID
join Contain C
on C.OrderID = O.OrderID
where R.RC_Method = 'QRcode'
group by R.ReceiptID;
having count(c.ProductID) > 1 order by R.RC_TotalAmount desc;
```

Query Result:

ReceiptID	RC_PaidTime	RC_Method	RC_TotalAmount	RC_Detail
CC0005	2023-09-10 06:51:57	QRcode	448.00	MC0020 : 1 / MC0009 : 2 / MC0014 : 2
BB0005	2023-09-20 12:36:26	QRcode	272.00	MC0011 : 2 / MC0019 : 1
CC0004	2023-08-15 23:46:49	QRcode	204.00	MC0008 : 1 / MC0015 : 3 / MC0019 : 1
AA0001	2023-02-15 09:46:00	QRcode	200.00	MC0002 : 2
BB0003	2023-06-25 19:16:09	QRcode	178.00	MC0012 : 2 / MC0018 : 1
BB0009	2023-10-10 21:22:12	QRcode	171.00	MC0020 : 1 / MC0003 : 1
AA0005	2023-09-05 16:45:12	QRcode	160.00	MC0012 : 2
AA0010	2023-10-02 17:42:26	QRcode	155.00	MC0009 : 1
BB0006	2023-01-15 14:51:18	QRcode	140.00	MC0003 : 1 / MC0002 : 1
AA0004	2023-03-21 11:54:03	QRcode	120.00	MC0003 : 3
BB0007	2023-05-03 09:42:13	QRcode	110.00	MC0016 : 2 / MC0015 : 2
BB0010	2023-02-03 15:32:13	QRcode	100.00	MC0017 : 2 / MC0016 : 1
BB0004	2023-03-06 16:29:20	QRcode	99.00	MC0020 : 1 / MC0018 : 1
AA0008	2023-08-28 13:11:00	QRcode	90.00	MC0007 : 2
AA0006	2023-01-23 08:16:58	QRcode	38.00	MC0015 : 2

Table 35

Report: List all customers who use special offer buying dessert	
Objective	To find customers who use the special offer for dessert

SQL Command

```
select concat(Cu.CTM_FirstName,' ',CTM_LastName) as Name, Sp.OfferName ,
Sp.SO_Description as 'Description' , P.PD_Name as 'Product Name' from SpecialOffer Sp
inner join OD O
on O.OrderID = Sp.OrderID
inner join Contain C
on O.OrderID = C.OrderID
left join Product P
on C.ProductID = P.ProductID
left join Customer Cu
on O.CustomerID = Cu.CustomerID
where Sp.OfferName like 'Dessert Snack%' and (P.PD_name like '%Pie' or P.PD_name like
'%Sundae' );
```

Query Result:

Name	OfferName	Description	Product Name
Era Rose	Dessert Snack 1	Pie (any flavor) for only 19 baht	Corn Pie
Eric King	Dessert Snack 2	Sundae (any flavor) for only 19 baht	Chocolate Sundae

Table 36

Report: List all of the special offers	
Objective	To show every offer that is available

SQL Command

```
select OfferName , ApplicableProducts, PromotionDetail, null as 'DiscountID'  ,null as
'DiscountPercent' from Promotion
union
select OfferName , null ,null , DC_DiscountID, DiscountPercent from DiscountCoupon;
```

Query Result:

OfferName	ApplicableProducts	PromotionDetail	DiscountID	DiscountPercent
69 Hamset	Hamburger	Hamburger set 69 baht	NULL	NULL
Dessert Snack 1	Pie	Pie (any flavor) for only 19 baht	NULL	NULL
Dessert Snack 2	Sundae	Sundae (any flavor) for only 19 baht	NULL	NULL
Fish & Chicken	Hamburger	Hamburger set with an addition of fried chicken for only 89 baht	NULL	NULL
Super Supper	Happy Meal	Happy Meal with sundae (any flavor) for only 99 baht	NULL	NULL
Crave & Claim	NULL	NULL	CCFEST	40
FirstTime	NULL	NULL	FIRSTIN50	50
Five-Hundred	NULL	NULL	500HUNDRED	20
One-Hundred	NULL	NULL	100HUNDRED	15
Ten Percent Off	NULL	NULL	10PERCENT	10

Table 37

Report: Time when customers buy Big Mac	
Objective	To show the time period when people buy Big Mac the most

SQL Command

```
select P.ProductID , P.PD_Name as ProductName,E.EMP_shift as Time, sum(C.Quantity) as
Total from Product P
left join Contain C
on P.ProductID = C.ProductID
inner join Employee E
on P.EmployeeID = E.EmployeeID
where P.PD_name = 'Big Mac'
group by P.ProductID, P.PD_Name
order by P.ProductID asc;
```

Query Result:

ProductID	ProductName	Time	Total
MC1004	Big Mac	00:00-08:00	NULL
MC2004	Big Mac	08:00-16:00	NULL
MC3004	Big Mac	16:00-00:00	4

Table 38

Report: List the products that has been done by a specific employee	
Objective	To show which product that has been done by an employee named ‘Jui Versteppen’

SQL Command

```
select concat(E.EMP_FirstName,' ',E.EMP_LastName) as Name , E.EMP_Shift as Shift ,
P.PD_Name as Product_Name from Employee E
left join Product P
on P.EmployeeID = E.EmployeeID
where E.EMP_FirstName = 'Jui' and E.EMP_LastName = 'Versteppen';
```

Query Result:

Name	Shift	Product_Name
Jui Versteppen	16:00-00:00	French Fries
Jui Versteppen	16:00-00:00	Cheeseburger
Jui Versteppen	16:00-00:00	Double Cheeseburger
Jui Versteppen	16:00-00:00	Chic stick
Jui Versteppen	16:00-00:00	Corn Pie
Jui Versteppen	16:00-00:00	Chocolate Sundae

Table 39

Report: List customers' email and name

Objective	Show customers' email whose email address(es) contains the letter 'a'

SQL Command

```
select E.Email as EMAIL ,concat(C.CTM_FirstName,' ',C.CTM_LastName) as Name
,C.CTM_Gender as Gender , C.CTM_PhoneNumber as PhoneNum from Customer C
inner join Email E
on E.CustomerID = C.CustomerID
where E.Email like '%a%'
order by Name;
```

Query Result:

EMAIL	Name	Gender	PhoneNum
asimmons@outlook.com	Aiden Simmons	M	0845678901
alexthegreat@gmail.com	Alex Webb	M	0996225544
seeyouagain15@gmail.com	Charlie Puth	M	0748817982
blazedyaln@hotmail.com	Dylan Lenivy	M	0625148963
eldendiff@hotmail.com	Elena Foster	F	0846523896
erarose@gmail.com	Era Rose	M	0900607788
fnaffan2006@gmail.com	Freddy Fazbear	M	0958623395
itwasharry@gmail.com	Harry Styles	M	0811455577
tbballerid@gmail.com	John Baller	M	0985671256
huntingwolf@gmail.com	Laura Kearney	F	0876653547
colelily@yahoo.com	Lily Coleman	F	0856789012
maryjostar@hotmail.com	Mary Steven	F	0651452589
iamblackspider@gmail.com	Miles Morales	M	0817869562
reynoldsn@hotmail.com	Noah Reynolds	M	0834567890
oliviatur@gmail.com	Olivia Turner	F	0812345678
imnotspiderman@hotmail....	Peter Parker	M	0669145723
batmanfangirl@gmail.com	Selina Wayne	F	0852596321
sorawitisreal@gmail.com	Sorawit Piriyap...	M	0987654321
sugonde@gmail.com	Sugonde Knuts	M	0634617819
swiftieseras@gmail.com	Taylor Hopper	F	0875162498
thomasmurp@outlook.com	Thomas Murphy	M	0823456789
vichayuthinwza@gmail.com	Vichayuth Ngu...	M	0869748852
charles.xev@gmail.com	Xavier Gobling	F	0997794126

Table 40

Report: Show a list of customers who buy sundae	
Objective	To show customers who buy sundae

SQL Command

```
select concat(Cu.CTM_FirstName,' ',Cu.CTM_LastName) as Name, P.PD_Name as
Product_Name from Customer Cu
join OD O
on O.CustomerID = Cu.CustomerID
left join Contain C
on C.OrderID = O.OrderID
left join Product P
on C.ProductID = P.ProductID
where P.PD_Name like '% sundae';
```

Query Result:

Name	Product_Name
Charlie Puth	Chocolate Sundae
Miles Morales	Strawberry Sundae
Freddy Fazbear	Strawberry Sundae
Eric King	Chocolate Sundae
Sorawit Piriyapanyaporn	Chocolate Sundae

Table 41

Report: Average employee salary for each role	
Objective	To display which employee role has the highest salary

SQL Command

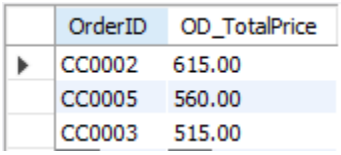
```
select EMP_Role as "Employee Role", avg(EMP_Salary) as "Average Salary"
from employee group by EMP_Role;
```

Query Result:

Employee Role	Average Salary
Cashier	15000.000000
Chef	14333.333333
Janitor	13666.666667

Table 42

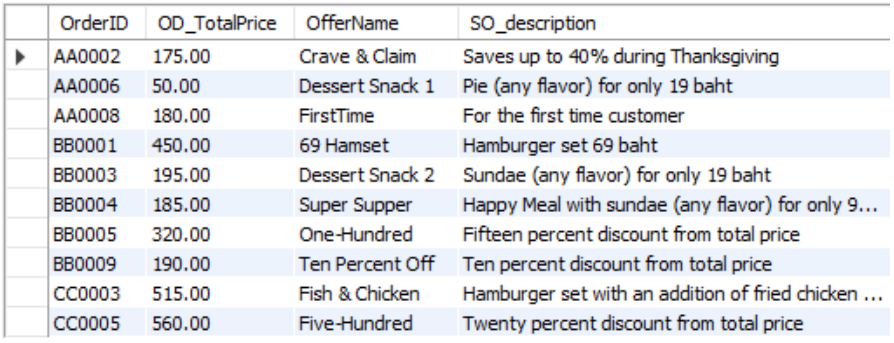
Report: Order with a total exceeding 500	
Objective	Display orders with a total exceeding 500.
SQL Command	
select OrderID, OD_TotalPrice from OD where OD_TotalPrice > 500 order by OD_TotalPrice desc;	
Query Result:	



OrderID	OD_TotalPrice
CC0002	615.00
CC0005	560.00
CC0003	515.00

Table 43

Report: Every order that has applied special offer	
Objective	To display a list of order that has used special offer
SQL Command	
select o.OrderID, o.OD_TotalPrice, so.OfferName, so.SO_description from OD o join SpecialOffer so on o.OrderID = so.OrderID order by o.OrderID asc;	
Query Result:	



OrderID	OD_TotalPrice	OfferName	SO_description
AA0002	175.00	Crave & Claim	Saves up to 40% during Thanksgiving
AA0006	50.00	Dessert Snack 1	Pie (any flavor) for only 19 baht
AA0008	180.00	FirstTime	For the first time customer
BB0001	450.00	69 Hamset	Hamburger set 69 baht
BB0003	195.00	Dessert Snack 2	Sundae (any flavor) for only 19 baht
BB0004	185.00	Super Supper	Happy Meal with sundae (any flavor) for only 9...
BB0005	320.00	One-Hundred	Fifteen percent discount from total price
BB0009	190.00	Ten Percent Off	Ten percent discount from total price
CC0003	515.00	Fish & Chicken	Hamburger set with an addition of fried chicken ...
CC0005	560.00	Five-Hundred	Twenty percent discount from total price

Table 44

Report: Total number of order that apply special offer and without applying it	
Objective	Display the number of order that utilize either a promotion, a discount coupon, or neither

SQL Command

```
select
   count(distinct dc.DC_DiscountID) as OrdersWithDiscountCoupon,
   count(distinct pr.ApplicableProducts) as OrdersWithPromotion,
   count(distinct od.OrderID) - count(distinct so.OfferName) as OrdersWithoutSpecialOffer
from OD od
   left join SpecialOffer so ON od.OrderID = so.OrderID
   left join DiscountCoupon dc ON so.OfferName = dc.OfferName
   left join Promotion pr ON so.OfferName = pr.OfferName;
```

Query Result:

OrdersWithDiscountCoupon	OrdersWithPromotion	OrdersWithoutSpecialOffer
5	4	15

Table 45

Report: Total revenue of each type of payment method	
Objective	Show total revenue of each type of payment method

SQL Command

```
select PM_Method, sum(PM_Amount) as TotalRevenue from Payment
group by PM_Method order by TotalRevenue desc;
```

Query Result:

PM_Method	TotalRevenue
QRcode	2485.00
CreditCard	1863.00
Cash	974.00

Table 46

Report: 10 least ordered McDonald's menu	
Objective	Show 10 least ordered menu by customers

SQL Command

```
select p.PD_Name as "Product Name" , sum(c.quantity ) as "Total Number" from Contain c
join Product p on c.ProductID = p.ProductID
group by p.PD_Name
order by sum(quantity ) asc
limit 10;
```

Query Result:

Product Name	Total Number
McChicken	1
Cheeseburger	2
Filet-O-Fish	2
McFried Chicken	2
Chicken Pie	3
Samurai Pork Burger	3
Chocolate Sundae	3
Double Cheeseburger	3
Strawberry Sundae	3
Beef Burger	4

Table 47

Report: Average price in each product category	
Objective	Show the average price for each product category
SQL Command	
select PD_Category, avg(PD_Price) as AveragePrice from Product group by PD_Category order by AveragePrice desc;	
Query Result:	

PD_Category	AveragePrice
Happy Meal	150.000000
Burger	122.900000
Fried	67.500000
Dessert	31.250000
Beverage	30.000000

Table 48

Report: A number of total revenue	
Objective	Show total revenue of the branch
SQL Command	
select sum(PM_Amount) as BranchTotalRevenue from Payment;	
Query Result:	

TotalRevenue
5322.00

Table 49

Report: Customer with the highest amount of purchase	
Objective	To display a customer who has the single highest purchase amount
SQL Command	
select concat(c.CTM_FirstName, " ", c.CTM_LastName) as CustomerName, sum(od.OD_TotalPrice) as HighestPurchaseAmount from Customer c join OD od on c.CustomerID = od.CustomerID group by c.CustomerID order by HighestPurchaseAmount desc limit 1;	
Query Result:	

	CustomerName	HighestPurchaseAmount
▶	Xavier Gobling	615.00

Table 50

Report: Employee who has done the most order	
Objective	To display the employee who takes care the most order
SQL Command	
select e.EmployeeID, concat(e.EMP_FirstName, " ", e.EMP_LastName) as EmployeeName, count(od.OrderID) as HighestOrderDone from Employee e join OD od on e.EmployeeID = od.EmployeeID group by e.EmployeeID order by HighestOrderDone desc limit 1;	
Query Result:	

	EmployeeID	EmployeeName	HighestOrderDone
▶	1	Jennifer Jones	5