



اَوْنُوْ رَسِيْئِيْ تِيْكَوْ لُوْ كِيْ مَارَا
UNIVERSITI
TEKNOLOGI
MARA

FAKULTI SAINS KOMPUTER DAN MATEMATIK

SARJANA MUDA SAINS (KEPUJIAN) STATISTIK

ICT501 (DATABASE MANAGEMENT SYSTEMS)

BS MOTORCYCLE PARTS SUPPLY SDN BHD

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1.0 INTRODUCTION

1.1 PROBLEM STATEMENT

Since the company BS Motorcycle Parts Supply Sdn Bhd founding in 1996, the business might have some problems that need to be upgrades. One of the most challenging things is to maintain the record of the customers that come to the company to buy the spare parts. Therefore, the annual report might be incomplete. The company does not efficiently record their data because they use Manual System File instead of Computerized System File. Next, the currently system used in the business is not applicable to back up the data about suppliers, customers, employees, products, invoices and the transactions of the business. Because of that, the data will take time also can make many mistakes when record the data. While, its difficulties to calculate their average daily, monthly, yearly sales and profit. Thus, BS Motorcycle Parts Supply Sdn Bhd needs a new systematic system to make it easier to record the data that can help the company to maintain their business also they do not worry about calculating and miscalculating the profit. While, the company can improve their business and maximizing their profit and can decrease the problem of in company.

1.2 OBJECTIVES

- 1) To generate a system which can retrieve the complete annual report to back up all the data of customers' and suppliers' purchase such as quantity of products and price will be recorded easily.
- 2) To allow the database system to back up the company data in a longer time which will be easier to implemented for future use in the system.
- 3) To develop a physical database structure for the system that will more organized and manageable .

2.0 CASE STUDY

2.1 COMPANY BACKGROUND

BS Motorcycle Parts Supply Sdn Bhd is a family company from generation to generation. The company began to operate their business in 1996. It started when father to Tee Lian Aik who is the current boss for the Klang branch, asked three of his friends to run the business together since he has a basic knowledge about motorcycles and the spare parts. The company is focusing on production of product which is spare parts of the motorcycle. This company has only two branches in Malaysia which is in Klang and Shah Alam. The main branches are in Shah Alam. In Klang branch, the number of workers including the clubs so far has 13 workers in total. For the organizations, Tee Lian Aik as the boss of the Klang branch. After that, his wife as an accountant in this business and there is a supervisor that manages the workers. The company sells many spare parts of the motorcycle such as body cover, oil seal, throttle cable, air filter, clutch gasket up, plug spark, sport rim and others. The main purpose of this business is about selling the spare parts of the motorcycles.

2.2 BUSINESS OPERATION

BS Motorcycle Parts Supply Sdn Bhd is operation on Monday until Saturday. On Monday until Friday the company open at 9.00a.m until 7.00p.m while on Saturday open at 10.00a.m until 5.00p.m. and Sunday is off day for the owner and workers. The company gets the spare parts from many suppliers that such as Toshima Trading Sdn Bhd, Procoat Sdn Bhd, Up Packing Sdn Bhd and many more suppliers that the company take for motorcycle spare parts. The suppliers will come to the shop to supply the products. Then, the workers will check the prices of the product and put the selling price. The company will usually restock the products on the weekend since all the products that had been restocked before will sell out three to four days only. After that, the employee will arrange the products in the store to make sure the shop always in good condition and organized. The customer will come to the shop to purchase their spare parts and the workers will record customer payment and save it as a report.

3.0 DATA REQUIREMENTS

3.1 DESCRIPTION OF ENTITES AND ATTRIBUTES

3.1.1 BUSINESS RULES

- A supplier supplies many product and product supplied by one supplier
- One customer purchases many products and a product can purchase by many customer
- Customer gets many invoice and invoice got by one customer
- An employee makes many invoice and invoice made by one employee

3.1.2 ENTITIES

- Supplier, Product, Customer, Invoice, Employee

3.1.3 ATTRIBUTES

- Supplier (supp_id, supp_name, supp_phonenum, supp_add)
- Product (prod_id, prod_price, prod_qty, prod_name)
- Customer (cust_id, cust_name, cust_phonenum)
- Invoice (inv_id, inv_qty, inv_date, inv_total, inv_paymethod)
- Employee (emp_id, emp_name, emp_ic, emp_phonenum, emp_add, emp_salary, emp_hiredate)

3.2 3NF RELATIONAL SCHEMA

UNF (supp_id, supp_name, supp_phonenum, supp_add, prod_id, prod_price, prod_qty, prod_name, cust_id, cust_name, cust_phonenum, inv_id, inv_qty, inv_date, inv_total, inv_paymethod, emp_id, emp_name, emp_ic, emp_phonenum, emp_add, emp_salary, emp_hiredate)

1NF (supp_id, supp_name, supp_phonenum, supp_add, prod_id, prod_price, prod_qty, prod_name, cust_id, cust_name, cust_phonenum, inv_id, inv_qty, inv_date, inv_total, inv_paymethod, emp_id, emp_name, emp_ic, emp_phonenum, emp_add, emp_salary, emp_hiredate)

2NF:

Customer (cust_id, cust_name, cust_phonenum)

Product (prod_id, prod_price, prod_qty, prod_name, supp_id*)

Supplier (supp_id, supp_name, supp_phonenum, supp_add)

Invoice (inv_id, inv_qty, inv_date, inv_total, inv_paymethod, emp_id*, cust_id*)

Employee (emp_id, emp_name, emp_ic, emp_phonenum, emp_add, emp_salary, emp_hiredate)

3nf:

Supplier (supp_id, supp_name, supp_phonenum, supp_add)

Product (prod_id, prod_price, prod_qty, prod_name, supp_id*)

Transaction (trans_id, cust_id*, prod_id*, trans_qty, trans_price)

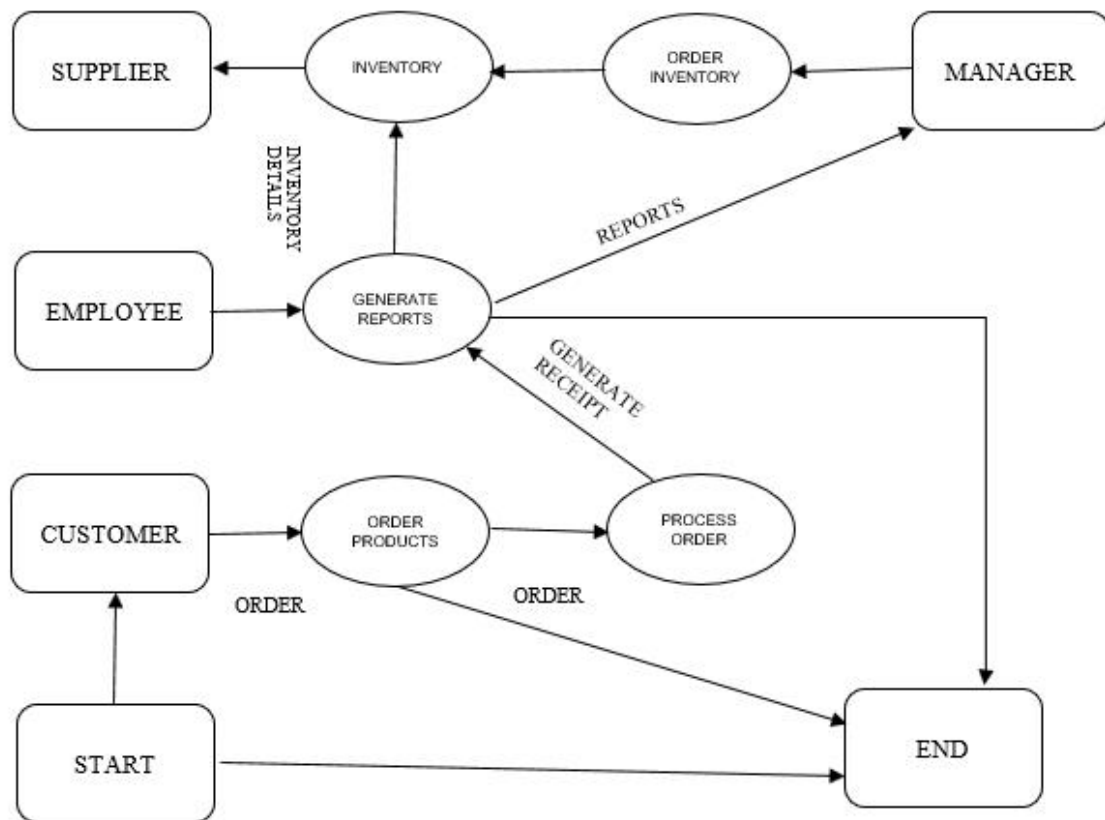
Customer (cust_id, cust_name, cust_phonenum)

Invoice (inv_id, inv_qty, inv_date, inv_total, inv_paymethod, emp_id*, cust_id*)

Employee (emp_id, emp_name, emp_ic, emp_phonenum, emp_add, emp_salary, emp_hiredate)

4.0 SYSTEM DESIGN

4.1 FLOW CHART / DATA-FLOW DIAGRAM



4.2 TABLES WITH DATA INTEGRITY

4.2.1 TABLE EMPLOYEE

Emp Id	Emp Name	Emp Ic	Emp Phonenum	Emp Add	Emp Salary	Emp Hiredate
1	NURAQILAH NABILA BINTI MD SABRE	990531140490	011-23785461	No. 32, Jalan Dato Yusof Shahbudin 19, Taman Sentosa, 41200, Klang, Selangor	1300	01-MAR-20
2	MUHAMMAD AIMAN BIN AZHAR	870602065681	011-10598517	No. 77, Lorong Sg Nibong 7, Taman Mewah Baru, Batu 3 1/2, Jalan Kapar, Klang, Selangor	2200	29-MAY-17
3	CHUNG YEE CHEN	920225105071	018-3950882	No. 37, Jalan Klang Perdana 2C, Taman Klang Perdana, 41400, Klang, Selangor	1800	01-JUL-18
4	MOHD ABAS BIN MD HUSIN	940718141695	016-3596719	No. 394, Jalan Dato' Tahir Manan, Taman Emas, 42220 Kapar, Klang, Selangor	1800	01-JUL-18
5	TING CHOO YUEN	781221086011	012-3553218	No. 19, Jalan Samarinda 11, Taman Klang Indah, 41000, Klang, Selangor	2400	30-MAR-17
6	NUR AINN BINTI ADI	990407100696	018-7703306	No. 31, Jalan Dato Ahmad Hamid 14, Taman Sentosa, 41200, Klang, Selangor	1300	01-JAN-20
7	MOHD SHAHRUL BIN HERMAN	910727035697	011-11554403	No. 17, Lorong Samarinda 20C, Taman Mesra Indah, 41000, Klang, Selangor	1300	05-FEB-20
8	HAIRUL HADAFI BIN HAMZAH	881120125887	018-3745311	No. 26, Jalan Bentara 1, Taman Saga, 41000, Klang, Selangor	1700	25-DEC-18
9	NOORHAYATI BINTI MD ISA	890510018290	011-55501232	No. 31, Jalan Dato Abdul Hamid 23, Taman Sentosa, Klang, Selangor	1500	20-OCT-19
10	MUHAMMAD SHUKRI BIN SAMSUDIN	960519045175	017-3300931	No. 25, Jalan Dato Yusof Shahbudin 25, Taman Sentosa, 41200, Klang, Selangor	1300	04-JAN-20
11	NORMAN BIN MISRAN	801025015235	019-2843161	No. 34, Jalan Hamzah Alang 31, Taman Kapar Jaya, Klang, Selangor	2000	31-JUL-17
12	MUHAMMAD SHAFIQ BIN HISHAM	960205015683	011-55518959	No. 14, Jalan Dato Hamid 15, Taman Sentosa, Klang, Selangor	1500	02-APR-19
13	NORSOLIHAH BINTI YUSOFF	930425085500	011-16072012	No. 10, Lorong Hamzah Alang 80, Off Persiaran Hamzah Alang, 42200 Kapar, Klang, Selangor	1700	28-AUG-18
14	ZAKARIA BIN MAT YUSOF	900403055127	017-3949157	Lot No 34743, Jalan Seri Jaya, Kampung Bukit Kapar, Klang, Selangor	1700	01-AUG-18
15	FAIZAL SHARIMAN BIN MD REAZMI	981127142561	017-3831982	No. 64, Jalan Indah 11, Off Jalan Sungai Putus, 41400, Klang, Selangor	1500	30-OCT-19

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Emp Id	Emp Name	Emp Ic	Emp Phonenum	Emp Add	Emp Salary	Emp Hiredate
16	GAN SIONG NIAN	950503102531	011-55519660	No. B-4-5, Block B, Pangsapuri Bukit Kuda, Jalan Perak, 41300, Klang, Selangor	1500	30-OCT-19
17	ROHAIDA BINTI SAMSUDIN	990125142638	011-10502477	No. CD-14, Block C, Pangsapuri Perepat Indah, Jalan Sulam, 42200 Kapar, Klang, Selangor	1500	28-DEC-19
18	THINAMANI A/P NEELAMAGAM	970717106452	011-70239043	No. 71, Jalan Meru Indah 5, Taman Meru Indah, Klang, Selangor	1300	01-JAN-20
19	CHAI KUM LING	850102065521	010-2575077	No. 10, Lorong Temenggung 2A, Taman Sentosa Perdana 2, Klang, Selangor	1800	05-JAN-18
20	AQMAR DANISH BIN HAIRULFITRI	970818145037	018-2749752	No. 32, Jalan Dato Yusof Shahbudin 15, Taman Sentosa, Klang, Selangor	1700	28-JUL-18

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4.2.2 TABLE PRODUCT

Prod Id	Prod Price	Prod Qty	Prod Name	Supp Id
HFB-W125-0263-T	8.5	24	W125 METER CABLE TSK	58320
44830-KFV-BSH	7.5	19	W100 METER CABLE OE	60218
1S8-F6301-09	17	29	LC135 THROTTLE CABLE OE	29406
YFB-Y100-0263-O	3.5	12	Y100 METER CABLE OSK	29406
ESP-Y15ZR-EP001	215	8	Y15ZR EX PIPE RACING E4 2 32MM ESPADA	02846
SCK-LC-0282-63	360	11	LC135 BLOCK RACING 63.5MM SCK	23999
HFB-W100-0316	16.5	24	W100 FOOTREST BRACKET RH NKS	82745
MEL-KIS-0013-E	13.8	16	KRISS HANDLE SWITCH RH STARTER SUNMO	01234
YFB-Y100-0261	3.5	30	Y100 BRAKE CABLE OSK	02846
ACC-GG001-UP	5.5	30	GASKET GUMP UP	20458
YFB-1152-0205	21.5	16	SRL1152 REAR SIGNAL ASSY SET VISS	20458
5BU-E1111-00	90	6	Y125 HEAD ASSY OE	01234
5BU-WE13E-00	468	3	Y125 BLOCK OE	29406
YET-RXZ-0033-OE	5.5	30	RXZ STARTER SPRING OE	58320
HRV-RS	118	4	RS150 BOX CARRIER HRV GIVI	60218

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	Prod.Id	Prod.Price	Prod.Qty	Prod.Name	Supp.Id
	EX5D-BL-H01	70	19	EX5D BODY COVER SET BLUE HLD	29406
	2JG-F3145-00	3.5	30	OIL SEAL OE	02846
	API-RS-0070-160	53	24	RS150 INJECTOR RACING 160CC 10HOLE PISTOP	23999
	YFB-LC-0260-OSK	5.5	30	LC135 THROTTLE CABLE OSK	20458
	02A00180	40	17	RS150 AIR FILTER RACING UMA	01234
	ESP-RS-AF00059	14	30	RS150 AIR FILTER FOAM ESPADA	58693
	BP-RS-HLM	10	30	RS150 BASKET P	82745
	YFB-Y110-0202	11.5	25	Y110 HEAD LAMP APP	82745
	YET-Y125-0057	20.5	14	Y125 RING STD RIKEN	58693
	YFB-Y110-0500	58	4	Y110 FRONT FORK SET LH	01234
	5XK-F5168	325	6	Y125ZR SPORT RIM BLACK OE	23999
	5YP-85790-00	36	10	LC135 THERMO SENSOR OE	29406
	5TF-E5411-00	55	7	SRL110 MAGNET COVER OE	60218
	SPARX-NPR8GM-B	4.8	30	NPR 8GM PLUG SPARX	58320
	YET-LC-0069-UP	1.5	30	LC135 CLUTCH GASKET UP	01234

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	Prod.Id	Prod.Price	Prod.Qty	Prod.Name	Supp.Id
	9-079-3-AH4-04	18.3	30	4T YAMALUBE 10W4 0 SEMI SYNTHETIC 1L	60218
	YFB-SRLZR-04-01	8.5	30	SRLZR MAIN PIPE COVER HLD	02846
	MST-KIS2-0008	5.5	30	KRISS2 GEAR LEVER KK	58693
	9555624001069	9.5	25	4T REPSOL SAE4 0 FORMULA 1L	29406
	ESP-LC-EP00185	167	2	LC135 EX PIPE RACING V5 30MM ESPADA	02846
	ACC-LC-DM00001	155	6	LC135 REAR DISC SET MODIFY ESPADA	82745
	ESP-LC-BLK00136	167.5	21	LC135 BLOCK RACING 62MM ESPADA	60218

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4.2.3 TABLE SUPPLIER

Supp.Id	Supp.Name	Supp.Phonenum	Supp.Add
	20458	PRCOAT SDN BHD	03-323 4307
	04869	SHENWEI AUTO PARTS TRADING	012-269 5113
	82745	WEST SUPPLIES SDN BHD	03-6157 6688
	58320	A & P PARTS INDUSTRIES SDN BHD	03-6251 7881
	60218	ENGJAYA MARKETING SDN BHD	06-335 5228
	29406	GLOBAL-PACIFIC MANUFACTURING SMD BHD	03-6021 1668
	02846	HLB TRADING SDN BHD	03-3342 6377
	23999	MOTORCYCLE DEALERS HOLIDINGS SDN BHD	03-4291 6270
	01234	TUSHIMA TRADING SDN BHD	07-773 1993
	58693	UP PACKING SDN BHD	05-598 1006

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4.2.4 TABLE CUSTOMER

HOME	EMPLOYEE	PRODUCT	SUPPLIER	CUSTOMER	TRANSACTION	INVOICE
HOME > Report on CUSTOMER						
Go Actions Create						
Cust.Id	Cust.Name	Cust.Phonenum				
	300-A0004	ANSON ONN	-			
	300-B0003	-	03-33926230			
	300-C0003	MIR.TAN	03-32791516			
	300-C0008	-	013-253 8363			
	300-E0003	SOON	012-490 1190			
	300-H0015	JOHN	019-772 6596			
	300-H0018	AH SIEW	012-911 8933			
	300-L0011	-	-			
	300-T0025	-	03-33588660			
	303-B0003	-	03-33926230			
	303-C0003	CHAW WEI	012-307 0133			
	303-H0011	HENG LAI	016-203 0566			
	303-L0002	ENG ANN	-			
	303-P0005	-	03-55199115			
	303-S0009	MIR TEE	03-33415921			
	303-T0001	MADAM LING	03-51618510			
	305-S0031	-	016-378 7201			

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4.2.5 TABLE TRANSACTION

	Trans Id	Prod Id	Cust Id	Trans Qty	Trans Price
	1	YFB-LC-0260-OSK	300-H0018	1	5.5
	2	HFB-W125-0263-T	300-H0018	1	8.5
	3	44830-KFV-BSH	300-H0018	3	7.5
	4	1S8-F6301-09	300-H0018	2	17
	5	YFB-Y100-0263-O	300-L0002	1	3.5
	6	ESP-Y15ZR-EP001	300-B0003	1	215
	7	SCK-LC-0282-63	300-B0003	1	360
	8	02A00180	300-E0003	1	40
	9	ESP-RS-AF00059	300-E0003	1	14
	10	BP-RS-HLM	300-T0025	2	10
	11	HFB-W100-0316	300-L0011	1	16.5
	12	MEL-KIS-0013-E	300-L0011	2	13.8
	13	YFB-Y110-0202	300-C0003	1	11.5
	14	YFB-Y100-0261	300-C0003	2	3.5
	15	ACC-GG001-UP	300-C0003	2	5.5

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	Trans Id	Prod Id	Cust Id	Trans Qty	Trans Price
	16	YFB-1152-0205	300-C0008	1	21.5
	17	YET-Y125-0057	300-A0004	1	20.5
	18	YFB-Y110-0500	300-A0004	1	58
	19	5XK-F5168	300-A0004	1	325
	20	5BU-E1111-00	300-A0004	1	90
	21	5BU-WE13E-00	300-A0004	1	468
	22	5YP-85790-00	303-H0011	2	36
	23	5TF-E5411-00	303-H0011	1	55
	24	YET-RXZ-0033-0E	303-C0003	2	5.5
	25	HRV-RS	303-C0003	1	118
	26	SPARX-NPR8GM-B	303-B0003	10	4.8
	27	YET-LC-0069-UP	303-B0003	10	1.5
	28	9-079-3-AH4-04	303-S0009	24	18.3
	29	YFB-SRLZR-04-01	300-H0015	1	8.5
	30	MST-KIS2-0008	300-H0015	3	5.5

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	Trans Id	Prod Id	Cust Id	Trans Qty	Trans Price
	31	9555624001069	300-H0006	12	9.5
	32	EX5D-BL-H01	303-T0001	1	70
	33	2JG-F3145-00	303-P0005	10	3.5
	34	API-RS-0070-160	300-E0003	1	53
	35	ESP-LC-BLK00136	300-E0003	1	167.5

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4.2.6 TABLE INVOICE

	Inv Id	Inv Qty	Inv Date	Inv Amount	Inv Paymethod	Emp Id	Cust Id
	41132	5	02-NOV-19	36.5	CREDIT CARD	2	300-H0018
	41133	2	18-NOV-19	34	CREDIT CARD	4	300-H0018
	41134	1	24-NOV-19	3.5	CASH	6	300-L0002
	41135	2	04-DEC-19	575	CREDIT CARD	8	300-B0003
	41136	2	12-DEC-19	54	CREDIT CARD	10	300-E0003
	41137	2	15-DEC-19	20	CASH	12	300-T0025
	41138	3	21-DEC-19	44.1	CASH	14	300-L0011
	41139	5	24-DEC-19	29.5	CASH	16	300-C0003
	41140	1	26-DEC-19	21.5	CASH	18	300-C0008
	41141	2	31-DEC-19	78.5	CASH	20	300-A0004
	41142	3	01-JAN-20	883	CREDIT CARD	1	300-A0004
	41144	3	04-JAN-20	127	CREDIT CARD	3	303-H0011
	41150	3	12-JAN-20	129	CASH	5	303-C0003
	41155	10	18-JAN-20	48	CREDIT CARD	7	303-B0003
	41156	10	20-JAN-20	15	CASH	9	303-B0003
							1 - 15 

	Inv Id	Inv Qty	Inv Date	Inv Amount	Inv Paymethod	Emp Id	Cust Id
	41158	24	02-FEB-20	439.2	CREDIT CARD	11	303-S0009
	41161	1	22-FEB-20	30	CASH	13	305-S0031
	41163	4	01-MAR-20	25	CASH	15	300-H0015
	41164	12	03-MAR-20	114	CASH	17	300-H0018
	41171	1	19-MAR-20	70	CASH	19	303-T0001
	41174	10	27-MAR-20	35	CASH	18	303-P0005
	41180	2	04-APR-20	220.5	CREDIT CARD	8	300-E0003
							 16 - 22

4.3 10 SQL QUERIES

1) Select all information from the EMP table.

Answer :

EMP_ID	EMP_NAME	EMP_JC	EMP_PHONENUM	EMP_ADD	EMP_SALARY	EMP_HIREDATE
20	AQMAR DANISH BIN HAIRULFITRI	970818145037	018-2749752	No. 32, Jalan Dato Yusof Shahbudin 15, Taman Sentosa, Klang, Selangor	1700	07/28/2018
1	NURAQILAH NABILA BINTI MD SABRE	990531140490	011-23785461	No. 32, Jalan Dato Yusof Shahbudin 19, Taman Sentosa, 41200, Klang, Selangor	1300	03/01/2020
2	MUHAMMAD AIMAN BIN AZHAR	870902065681	011-10598517	No. 77, Lorong Sg Nibong 7, Taman Mewah Baru, Batu 3 1/2, Jalan Kapar, Klang, Selangor	2200	05/29/2017
3	CHUNG YEE CHEN	920225105071	018-3950882	No. 37, Jalan Klang Perdana 2C, Taman Klang Perdana, 41400, Klang, Selangor	1800	07/01/2018
4	MOHD ABAS BIN MD HUSIN	940718141695	016-3596719	No. 394, Jalan Dato Tahir Manan, Taman Emas, 42220 Kapar, Klang, Selangor	1800	07/01/2018
5	TING CHOO YUEN	781221086011	012-3553218	No. 19, Jalan Samarinda 11, Taman Klang Indah, 41000, Klang, Selangor	2400	03/30/2017
6	NUR AINN BINTI ADI	990407100696	018-7703306	No. 31, Jalan Dato Ahmad Hamid 14, Taman Sentosa, 41200, Klang, Selangor	1300	01/01/2020
7	MOHD SHAHRUL BIN HERMAN	910727035697	011-11554403	No. 17, Lorong Samarinda 20C, Taman Mesra Indah, 41000, Klang, Selangor	1300	02/05/2020
8	HAIRUL HADAFI BIN HAMZAH	881120125887	018-3745311	No. 26, Jalan Bentara 1, Taman Saga, 41000, Klang, Selangor	1700	12/25/2018
9	NOORHAYATI BINTI MD ISA	890510018290	011-55501232	No. 31, Jalan Dato Abdul Hamid 23, Taman Sentosa, Klang, Selangor	1500	10/20/2019
10	MUHAMMAD SHUKRI BIN SAMSUDIN	960519045175	017-3300931	No. 25, Jalan Dato Yusof Shahbudin 25, Taman Sentosa, 41200, Klang, Selangor	1300	01/04/2020
11	NORMAN BIN MISRAN	801025015235	019-2643161	No. 34, Jalan Hamzah Alang 31, Taman Kapar Jaya, Klang, Selangor	2000	07/31/2017
12	MUHAMMAD SHAFIQ BIN HISHAM	960205015683	011-55516959	No. 14, Jalan Dato Hamid 15, Taman Sentosa, Klang, Selangor	1500	04/02/2019
13	NORSOLIHAH BINTI YUSOFF	930425085500	011-16072012	No. 10, Lorong Hamzah Alang 80, Off Persiaran Hamzah Alang, 42200 Kapar, Klang, Selangor	1700	08/28/2018
14	ZAKARIA BIN MAT YUSOF	900403055127	017-3949157	Lot No 34743, Jalan Seri Jaya, Kampung Bukit Kapar, Klang, Selangor	1700	08/01/2018
15	FAIZAL SHARIMAN BIN MD REAZMI	981127142561	017-3631982	No. 64, Jalan Indah 11, Off Jalan Sungai Putus, 41400, Klang, Selangor	1500	10/30/2019
16	GAN SIONG NIAN	950503102531	011-55519660	No. B-4-5, Block B, Pangsapuri Bukit Kuda, Jalan Perak, 41300, Klang, Selangor	1500	10/30/2019
17	ROHAIDA BINTI SAMSUDIN	990125142638	011-10502477	No. C0-14, Block C, Pangsapuri Perepat Indah, Jalan Sulam, 42200 Kapar, Klang, Selangor	1500	12/28/2019
18	THINAMANI A/P NEELAMAGAM	970717106452	011-70239043	No. 71, Jalan Meru Indah 5, Taman Meru Indah, Klang, Selangor	1300	01/01/2020
19	CHAI KUM LING	850102065521	010-2575077	No. 10, Lorong Temenggung 2A, Taman Sentosa Perdana 2, Klang, Selangor	1800	01/05/2018

FROM EMPLOYEE;

2) Display each of employee name with hiredate and salary. Order the output in ascending employee hiredate order.

Answer :

SELECT EMP_NAME, EMP_HIREDATE, EMP_SALARY FROM
EMPLOYEE ORDER BY EMP_HIREDATE ASC;

EMP_NAME	EMP_HIREDATE	EMP_SALARY
TING CHOO YUEN	03/30/2017	2400
MUHAMMAD AIMAN BIN AZHAR	05/29/2017	2200
NORMAN BIN MISRAN	07/31/2017	2000
CHAI KUM LING	01/05/2018	1800
CHUNG YEE CHEN	07/01/2018	1800
MOHD ABAS BIN MD HUSIN	07/01/2018	1800
AQMAR DANISH BIN HAIRULFITRI	07/28/2018	1700
ZAKARIA BIN MAT YUSOF	08/01/2018	1700
NORSOLIHAH BINTI YUSOFF	08/28/2018	1700
HAIRUL HADAFI BIN HAMZAH	12/25/2018	1700
MUHAMMAD SHAFIQ BIN HISHAM	04/02/2019	1500
NOORHAYATI BINTI MD ISA	10/20/2019	1500
GAN SIONG NIAN	10/30/2019	1500
FAIZAL SHARIMAN BIN MD REAZMI	10/30/2019	1500
ROHAIDA BINTI SAMSUDIN	12/28/2019	1500
NUR AINN BINTI ADI	01/01/2020	1300
THINAMANI A/P NEELAMAGAM	01/01/2020	1300
MUHAMMAD SHUKRI BIN SAMSUDIN	01/04/2020	1300
MOHD SHAHRUL BIN HERMAN	02/05/2020	1300
NURAQILAH NABILA BINTI MD SABRE	03/01/2020	1300

- 3) Print a list of employees displaying just salary if more than 1700. If exactly 1700 display 'on target', but if employees' salary less than 1700 display 'below 1700' and else display 'displayed'.

Answer :

```
SELECT EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE, (CASE WHEN
EMP_SALARY > 1700 THEN 'DISPLAYED' WHEN EMP_SALARY =
1700 THEN 'ON TARGET' WHEN EMP_SALARY < 1700 THEN
```

EMP_ID	EMP_NAME	EMP_IC	EMP_PHONENUM	EMP_ADD	EMP_SALARY	EMP_HIREDATE	QUALIFIED_SALARY
20	AQMAR DANISH BIN HAIRULFITRI	970818145037	018-2749752	No. 32, Jalan Dato Yusof Shahbudin 15, Taman Sentosa, Klang, Selangor	1700	07/28/2018	ON TARGET
1	NURAIQILAH NABIILA BINTI MD SABRE	990531140490	011-23785461	No. 32, Jalan Dato Yusof Shahbudin 19, Taman Sentosa, 41200, Klang, Selangor	1300	03/01/2020	BELOW 1700
2	MUHAMMAD AIDAN BIN AZHAR	970602065681	011-10598517	No. 77, Lorong Sg Nibong 7, Taman Mewah Baru, Batu 3 1/2, Jalan Kapar, Klang, Selangor	2200	05/29/2017	DISPLAYED
3	CHUNG YEE CHEN	920225105071	018-3950882	No. 37, Jalan Klang Perdana 2C, Taman Klang Perdana, 41400, Klang, Selangor	1800	07/01/2018	DISPLAYED
4	MOHD ABAS BIN MD HUSIN	940718141695	016-3596719	No. 394, Jalan Dato' Tahir Manan, Taman Emas, 42220 Kapar, Klang, Selangor	1800	07/01/2018	DISPLAYED
5	TING CHOO YUEN	781221086011	012-3553218	No. 19, Jalan Samarinda 11, Taman Klang Indah, 41000, Klang, Selangor	2400	03/30/2017	DISPLAYED
6	NUR AINN BINTI ADI	990407100696	018-7703306	No 31, Jalan Dato Ahmad Hamid 14, Taman Sentosa, 41200, Klang, Selangor	1300	01/01/2020	BELOW 1700
7	MOHD SHAHRUL BIN HERMAN	910727035697	011-11554403	No. 17, Lorong Samarinda 20C, Taman Mesra Indah, 41000, Klang, Selangor	1300	02/05/2020	BELOW 1700
8	HAIRUL HADAFI BIN HAMZAH	881120125887	018-3745311	No. 26, Jalan Bentara 1, Taman Saga, 41000, Klang, Selangor	1700	12/25/2018	ON TARGET
9	NOORHAYATI BINTI MD ISA	890510018290	011-55501232	No 31, Jalan Dato Abdul Hamid 23, Taman Sentosa, Klang, Selangor	1500	10/20/2019	BELOW 1700
10	MUHAMMAD SHUKRI BIN SAMSUDIN	960519045175	017-3300931	No. 25, Jalan Dato Yusof Shahbudin 25, Taman Sentosa, 41200, Klang, Selangor	1300	01/04/2020	BELOW 1700
11	NORMAN BIN MISRAN	801025015235	019-2643161	No 34, Jalan Hamzah Alang 31, Taman Kapar Jaya, Klang, Selangor	2000	07/31/2017	DISPLAYED
12	MUHAMMAD SHAFIQ BIN HISHAM	960205015683	011-55516959	No. 14, Jalan Dato Hamid 15, Taman Sentosa, Klang, Selangor	1500	04/02/2019	BELOW 1700
13	NORSOLIHAH BINTI YUSOFF	930425085500	011-16072012	No. 10, Lorong Hamzah Alang 80, Off Persiaran Hamzah Alang, 42200 Kapar, Klang, Selangor	1700	08/28/2018	ON TARGET
14	ZAKARIA BIN MAT YUSOF	900403055127	017-3949157	Lot No 34743, Jalan Seri Jaya, Kampung Bukit Kapar, Klang, Selangor	1700	08/01/2018	ON TARGET
15	FAIZAL SHARIMAN BIN MD REAZMI	981127142561	017-3631982	No. 64, Jalan Indah 11, Off Jalan Sungai Putus, 41400, Klang, Selangor	1500	10/30/2019	BELOW 1700
16	GAN SIONG NIAN	950503102531	011-55519660	No. B-4-5, Block B, Pangsapuri Bukit Kuda, Jalan Perak, 41300, Klang, Selangor	1500	10/30/2019	BELOW 1700
17	ROHAIDA BINTI SAMSUDIN	990125142638	011-10502477	No. C0-14, Block C, Pangsapuri Perepat Indah, Jalan Sulam, 42200 Kapar, Klang, Selangor	1500	12/28/2019	BELOW 1700
18	THINAMANI A/P NEELAMAGAM	970717106452	011-70239043	No 71, Jalan Meru Indah 5, Taman Meru Indah, Klang, Selangor	1300	01/01/2020	BELOW 1700
19	CHAI KUM LING	850102065521	010-2575077	No. 10, Lorong Temenggung 2A, Taman Sentosa Perdana 2, Klang, Selangor	1800	01/05/2018	DISPLAYED

'BELOW 1700' END) QUALIFIED_SALARY FROM EMPLOYEE;

- 4) Display all invoice that payment method is cash.

Answer:

```
SELECT * FROM INVOICE WHERE INV_PAYMETHOD = 'CASH';
```

INV_ID	INV_QTY	INV_DATE	INV_AMOUNT	INV_PAYMETHOD	EMP_ID	CUST_ID
41137	2	12/15/2019	20	CASH	12	300-T0025
41150	3	01/12/2020	129	CASH	5	303-C0003
41161	1	02/22/2020	30	CASH	13	305-S0031
41163	4	03/01/2020	25	CASH	15	300-H0015
41138	3	12/21/2019	44.1	CASH	14	300-L0011
41139	5	12/24/2019	29.5	CASH	16	300-C0003
41140	1	12/26/2019	21.5	CASH	18	300-C0008
41141	2	12/31/2019	78.5	CASH	20	300-A0004
41156	10	01/20/2020	15	CASH	9	303-B0003
41171	1	03/19/2020	70	CASH	19	303-T0001
41174	10	03/27/2020	35	CASH	18	303-P0005
41134	1	11/24/2019	3.5	CASH	6	300-L0002
41164	12	03/03/2020	114	CASH	17	300-H0018

- 5) Display the id, product id and transaction quantity whose transaction is more than 5.

Answer:

```
SELECT TRANS_ID, PROD_ID, TRANS_QTY FROM
TRANSACTION, CUSTOMER WHERE TRANSACTION.CUST_ID =
CUSTOMER.CUST_ID AND TRANS_QTY > 5;
```

TRANS_ID	PROD_ID	TRANS_QTY
33	2JG-F3145-00	10
26	SPARX-NPR8GM-B	10
27	YET-LC-0069-UP	10
28	9-079-3-AH4-04	24

- 6) Find the employee(s) who earn the highest salary in each job type. Sort in descending salary order.

Answer:

```
SELECT EMP_NAME, EMP_HIREDATE, EMP_SALARY FROM
EMPLOYEE WHERE EMP_SALARY IN (SELECT
MAX(EMP_SALARY) FROM EMPLOYEE GROUP BY
EMP_HIREDATE) ORDER BY EMP_SALARY DESC;
```

EMP_NAME	EMP_HIREDATE	EMP_SALARY
TING CHOO YUEN	03/30/2017	2400
MUHAMMAD AIMAN BIN AZHAR	05/29/2017	2200
NORMAN BIN MISRAN	07/31/2017	2000
CHAI KUM LING	01/05/2018	1800
MOHD ABAS BIN MD HUSIN	07/01/2018	1800
CHUNG YEE CHEN	07/01/2018	1800
AQMAR DANISH BIN HAIRULFITRI	07/28/2018	1700
HAIRUL HADAFI BIN HAMZAH	12/25/2018	1700
ZAKARIA BIN MAT YUSOF	08/01/2018	1700
NORSOLIHAH BINTI YUSOFF	08/28/2018	1700
NOORHAYATI BINTI MD ISA	10/20/2019	1500
MUHAMMAD SHAFIQ BIN HISHAM	04/02/2019	1500
FAIZAL SHARIMAN BIN MD REAZMI	10/30/2019	1500
GAN SIONG NIAN	10/30/2019	1500
ROHAIDA BINTI SAMSUDIN	12/28/2019	1500
THINAMANI A/P NEELAMAGAM	01/01/2020	1300
MUHAMMAD SHUKRI BIN SAMSUDIN	01/04/2020	1300
MOHD SHAHRUL BIN HERMAN	02/05/2020	1300
NUR AINN BINTI ADI	01/01/2020	1300
NURAQILAH NABILA BINTI MD SABRE	03/01/2020	1300

7) Insert into the SUPPLIER table the following rows:

SUPP_ID	SUPP_NAME	SUPP_PHONENUM	SUPP_ADD
36750	LOONG SING CO	03-60343671	NO 26, JALAN KPK 1/7 KAWASAN PERINDUSTRIAN KUNDANG KUANG, 48020, RAWANG, SELANGOR

Answer:

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME,  
SUPP_PHONENUM, SUPP_ADD) VALUES ('36750', 'LOONG SING  
CO', '03-60343671', 'NO 26, JALAN KPK 1/7 KAWASAN  
PERINDUSTRIAN KUNDANG KUANG, 48020, RAWANG,  
SELANGOR');
```

SUPP_ID	SUPP_NAME	SUPP_PHONENUM	SUPP_ADD
36750	LOONG SING CO	03-60343671	NO 26, JALAN KPK 1/7 KAWASAN PERINDUSTRIAN KUNDANG KUANG, 48020, RAWANG, SELANGOR

8) Update table CUST_ID where cust_id '303-T0001' to '303-M004'.

Answer:

```
UPDATE CUSTOMER SET CUST_ID = '303-M004' WHERE  
CUST_ID = '303-T0001';
```

CUST_ID	CUST_NAME	CUST_PHONENUM
303-M0004	MADAM LING	03-51618510

- 9) Delete row from table supplier where supplier name is Tushima Trading Sdn Bhd.

Answer:

DELETE FROM SUPPLIER WHERE SUPP_NAME = 'TUSHIMA TRADING SDN BHD';

SUPP_ID	SUPP_NAME	SUPP_PHONENUM	SUPP_ADD
20458	PRCOAT SDN BHD	03-3323 4307	46, Jalan Seruling 58, Taman Klang Jaya, 41200 Klang, Selangor
04869	SHENWEI AUTO PARTS TRADING	012-269 5113	No 7-1, Jalan Klang Sentral 9/KU5, Klang Sentral, 41050 Klang, Selangor
82745	WEST SUPPLIES SDN BHD	03-6157 6688	9, Jalan TSB 8, Taman Industri Sungai Buloh, 47810 Sungai Buloh, Selangor
58320	A & P PARTS INDUSTRIES SDN BHD	03-6251 7881	Jalan Segambut Atas, Taman Segambut, 51200 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur
60218	ENGJAYA MARKETING SDN BHD	06-335 5228	Jalan Ttc 2, Cheng Industrial Estate, Melaka, 75250 Malacca
29406	GLOBAL-PACIFIC MANUFACTURING SMD BHD	03-6021 1668	No 6, Jalan Kamunting 3, Perindustrian, Jalan Kamunting 2A/1, Bukit Beruntung, 48300, Selangor
02846	HBL TRADING SDN BHD	03-3342 6377	Wisma Tan, No, 111, Jalan Kapar, 41400 Klang, Selangor
23999	MOTORCYCLE DEALERS HOLIDINGS SDN BHD	03-4291 6270	Lot 1285 & Lot 1308 Jalan KPAT 5, 68000 Ampang Jaya, Selangor
58693	UP PACKING SDN BHD	05-598 1006	483, Kawasan Industri, 31100, Sungai Siput, Perak

- 10) Rename a table invoice amount to total invoice.

Answer:

ALTER TABLE INVOICE RENAME COLUMN INV_AMOUNT TO TOTAL_INV;

INV_ID	INV_QTY	INV_DATE	TOTAL_INV	INV_PAYMETHOD	EMP_ID	CUST_ID
41136	2	12/12/2019	54	CREDIT CARD	10	300-E0003
41137	2	12/15/2019	20	CASH	12	300-T0025
41150	3	01/12/2020	129	CASH	5	303-C0003
41158	24	02/02/2020	439.2	CREDIT CARD	11	303-S0009
41161	1	02/22/2020	30	CASH	13	305-S0031
41163	4	03/01/2020	25	CASH	15	300-H0015
41135	2	12/04/2019	575	CREDIT CARD	8	300-B0003
41138	3	12/21/2019	44.1	CASH	14	300-L0011
41139	5	12/24/2019	29.5	CASH	16	300-C0003
41140	1	12/26/2019	21.5	CASH	18	300-C0008
41141	2	12/31/2019	78.5	CASH	20	300-A0004
41155	10	01/18/2020	48	CREDIT CARD	7	303-B0003
41156	10	01/20/2020	15	CASH	9	303-B0003
41171	1	03/19/2020	70	CASH	19	303-T0001
41174	10	03/27/2020	35	CASH	18	303-P0005
row(s) 1 - 15 of 22						➤

5.0 SYSTEM DEVELOPMENT

5.1 SYSTEM DEVELOPMENT LIFE CYCLE PHASES

Planning: BS Motorcycle Parts Supply Sdn Bhd might have some problems in maintaining the record of the transaction process because the company did the report manually, so that it is might be incomplete and the total cash flow is difficult to be retrieved

Analysis: The expectations are to have an organizational and technological software to make sure that the arrangement and cash flow are arrange correctly and systematically

Design: Consists of software that can transform the requirement specification into a structure or plan. It is the process of planning and problem solving for a software solution to meet all functional and technical requirements, logically and physically

Implementation: The actual code is written, and the system is ready to be installed in customer's premises and training may be required for end users to make sure they know how to use the system and to get familiar with it. May take a long time depends on the complexity of the system

Testing: The software is carried out to know the outcome of application. The goal is to know the actual result and the expected result. Effective testing will provide high quality software products, lower maintenance costs and more accurate and reliable results.

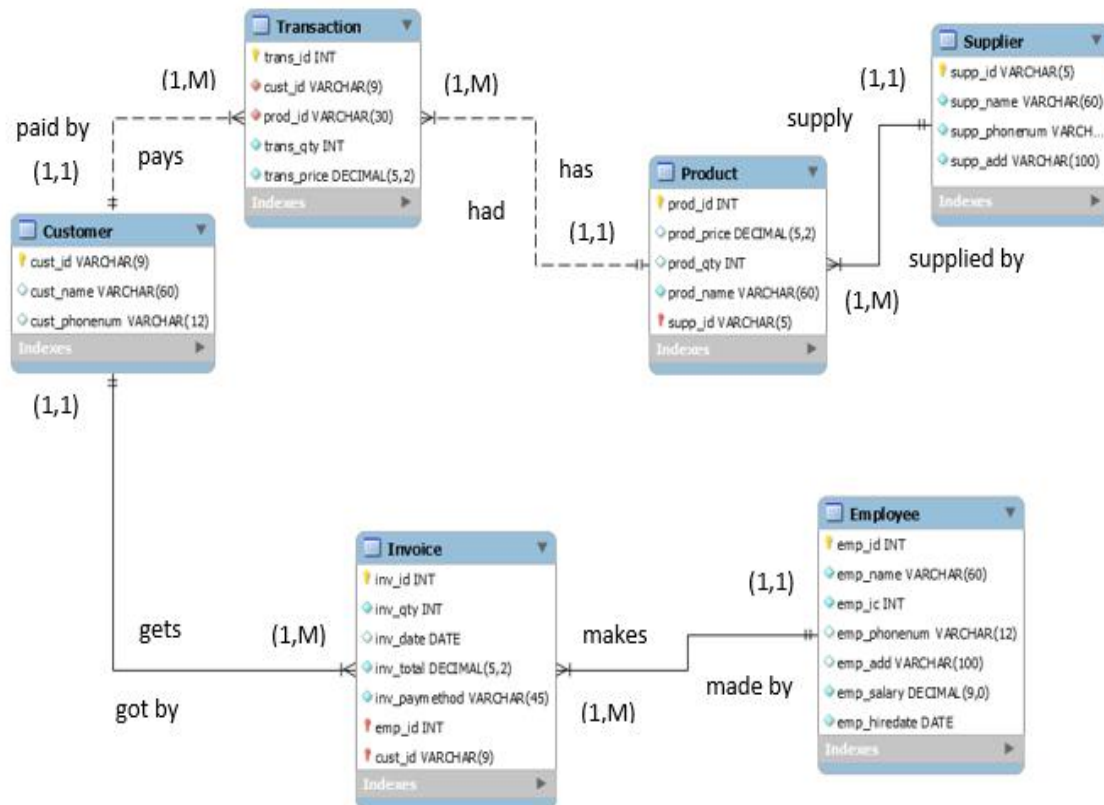
Maintenance: The software that is being developed distributed to end users who are responsible for maintaining and using it for proper operations. The software providing latest updates for certain components to make sure it meets the right standards and the latest technologies to face current security threats

6.0 CONCLUSION

As the conclusion, this project is designed to meet the requirements of the system that will be able to achieve the objectives that can give satisfaction to the management in order to manage and plan the company. Therefore, we have developed a system named 'BS Motorcycle Parts Supply Sdn Bhd' to help the company solve their problem. The new system that we designed is a significant improvement that can replace the existing current system which was carried out manually. All the information about the business is done manually that might be challenging for them to maintain the record of customers that come to the company to buy the spare parts. Hence, the current system that they used in business is not applicable to back up the data that may affect the annual report of the company. The computerized system will provide better services for the company to find the report sales and reduce time to check the data that they needed. Next, the implementation of this project has been done to increase the integrity of data that is stored in the system and to eliminate data redundancy. For this project, we used an ER diagram and have created the database system by using Oracle as a tool to design the system for the company. As a result, this project fully achieved the objectives and this system can help the company solve their problem to maintain their business efficiently.

APPENDICES:

APPENDIX A: ENTITY RELATIONSHIP DIAGRAM (ERD)



APPENDIX B: DATA DICTIONARY

CUSTOMER

Column Name	Data Type	Nullable	Default	Primary Key
CUST_ID	VARCHAR2(9)	No	-	1
CUST_NAME	VARCHAR2(60)	Yes	-	-
CUST_PHONENUM	VARCHAR2(12)	Yes	-	-
				1 - 3

EMPLOYEE

Column Name	Data Type	Nullable	Default	Primary Key
EMP_ID	NUMBER(2,0)	No	-	1
EMP_NAME	VARCHAR2(60)	No	-	-
EMP_IC	NUMBER(12,0)	No	-	-
EMP_PHONENUM	VARCHAR2(12)	Yes	-	-
EMP_ADD	VARCHAR2(100)	Yes	-	-
EMP_SALARY	NUMBER(9,0)	No	-	-
EMP_HIREDATE	DATE	No	-	-
				1 - 7

INVOICE

Column Name	Data Type	Nullable	Default	Primary Key
INV_ID	NUMBER(5,0)	No	-	1
INV_QTY	NUMBER(30,0)	No	-	-
INV_DATE	DATE	Yes	-	-
INV_AMOUNT	NUMBER(5,2)	No	-	-
INV_PAYMETHOD	VARCHAR2(45)	No	-	-
EMP_ID	NUMBER(2,0)	No	-	-
CUST_ID	VARCHAR2(9)	No	-	-
				1 - 7

PRODUCT

Column Name	Data Type	Nullable	Default	Primary Key
PROD_ID	VARCHAR2(30)	No	-	1
PROD_PRICE	NUMBER(5,2)	Yes	-	-
PROD_QTY	NUMBER(30,0)	Yes	-	-
PROD_NAME	VARCHAR2(60)	No	-	-
SUPP_ID	VARCHAR2(5)	No	-	-
				1 - 5

SUPPLIER

Column Name	Data Type	Nullable	Default	Primary Key
SUPP_ID	VARCHAR2(5)	No	-	1
SUPP_NAME	VARCHAR2(60)	No	-	-
SUPP_PHONENUM	VARCHAR2(12)	No	-	-
SUPP_ADD	VARCHAR2(100)	No	-	-
				1 - 4

TRANSACTION

Column Name	Data Type	Nullable	Default	Primary Key
TRANS_ID	NUMBER(2,0)	No	-	1
PROD_ID	VARCHAR2(30)	No	-	-
CUST_ID	VARCHAR2(9)	No	-	-
TRANS_QTY	NUMBER(37,0)	No	-	-
TRANS_PRICE	NUMBER(5,2)	No	-	-
				1 - 5

APPENDIX C: SAMPLE OF TRANSACTION AND SQL QUERY

Referring to 4.3 for 10 SQL Queries (Question and Output)

APPENDIX D: DATA DEFINITION LANGUAGE (DDL)

1) TABLE CUSTOMER

```
CREATE TABLE "CUSTOMER"
( "CUST_ID" VARCHAR2(9) NOT NULL ENABLE,
  "CUST_NAME" VARCHAR2(60),
  "CUST_PHONENUM" VARCHAR2(12),
  CONSTRAINT "CUSTOMER_PK" PRIMARY KEY ("CUST_ID") ENABLE
);
```

```
CREATE OR REPLACE TRIGGER "BI_CUSTOMER"
before insert on "CUSTOMER"
for each row
begin
  if :NEW."CUST_ID" is null then
    select "CUSTOMER_ID".nextval into :NEW."CUST_ID" from dual;
  end if;
end;

/
ALTER TRIGGER "BI_CUSTOMER" ENABLE;
```

2) TABLE EMPLOYEE

```
CREATE TABLE "EMPLOYEE"
( "EMP_ID" NUMBER(2,0) NOT NULL ENABLE,
  "EMP_NAME" VARCHAR2(60) NOT NULL ENABLE,
  "EMP_IC" NUMBER(12,0) NOT NULL ENABLE,
  "EMP_PHONENUM" VARCHAR2(12),
  "EMP_ADD" VARCHAR2(100),
  "EMP_SALARY" NUMBER(9,0) NOT NULL ENABLE,
  "EMP_HIREDATE" DATE NOT NULL ENABLE,
  CONSTRAINT "EMPLOYEE_PK" PRIMARY KEY ("EMP_ID") ENABLE
);
```

```
CREATE OR REPLACE TRIGGER "BI_EMPLOYEE"
before insert on "EMPLOYEE"
for each row
begin
  if :NEW."EMP_ID" is null then
    select "EMP_ID".nextval into :NEW."EMP_ID" from dual;
  end if;
end;

/
ALTER TRIGGER "BI_EMPLOYEE" ENABLE;
```

3) TABLE INVOICE

```
CREATE TABLE "INVOICE"
( "INV_ID" NUMBER(5,0),
  "INV_QTY" NUMBER(30,0) NOT NULL ENABLE,
  "INV_DATE" DATE,
  "INV_AMOUNT" NUMBER(5,2) NOT NULL ENABLE,
  "INV_PAYMETHOD" VARCHAR2(45) NOT NULL ENABLE,
  "EMP_ID" NUMBER(2,0) NOT NULL ENABLE,
  "CUST_ID" VARCHAR2(9) NOT NULL ENABLE,
  CONSTRAINT "INVOICE_PK" PRIMARY KEY ("INV_ID") ENABLE
);
```

```
CREATE OR REPLACE TRIGGER "BI_INVOICE"
before insert on "INVOICE"
for each row
begin
  if :NEW."INV_ID" is null then
    select "inv_id".nextval into :NEW."INV_ID" from dual;
  end if;
end;

/
ALTER TRIGGER "BI_INVOICE" ENABLE;
```

4) TABLE PRODUCT

```
CREATE TABLE "PRODUCT"
( "PROD_ID" VARCHAR2(30) NOT NULL ENABLE,
  "PROD_PRICE" NUMBER(5,2),
  "PROD_QTY" NUMBER(30,0),
  "PROD_NAME" VARCHAR2(60) NOT NULL ENABLE,
  "SUPP_ID" VARCHAR2(5) NOT NULL ENABLE,
  CONSTRAINT "PRODUCT_PK" PRIMARY KEY ("PROD_ID") ENABLE
);
```

```
CREATE OR REPLACE TRIGGER "BI_PRODUCT"
before insert on "PRODUCT"
for each row
begin
  if :NEW."PROD_ID" is null then
    select "prod_id".nextval into :NEW."PROD_ID" from dual;
  end if;
end;

/
ALTER TRIGGER "BI_PRODUCT" ENABLE;
```

5) TABLE SUPPLIER

```
CREATE TABLE "SUPPLIER"
(  "SUPP_ID" VARCHAR2(5) NOT NULL ENABLE,
   "SUPP_NAME" VARCHAR2(60) NOT NULL ENABLE,
   "SUPP_PHONENUM" VARCHAR2(12) NOT NULL ENABLE,
   "SUPP_ADD" VARCHAR2(100) NOT NULL ENABLE,
   CONSTRAINT "SUPPLIER_PK" PRIMARY KEY ("SUPP_ID") ENABLE
);

CREATE OR REPLACE TRIGGER "BI_SUPPLIER"
before insert on "SUPPLIER"
for each row
begin
  if :NEW."SUPP_ID" is null then
    select "SUPP_ID".nextval into :NEW."SUPP_ID" from dual;
  end if;
end;

/
ALTER TRIGGER "BI_SUPPLIER" ENABLE;
```

6) TABLE TRANSACTION

```
CREATE TABLE "TRANSACTION"
(  "TRANS_ID" NUMBER(2,0),
   "PROD_ID" VARCHAR2(30) NOT NULL ENABLE,
   "CUST_ID" VARCHAR2(9) NOT NULL ENABLE,
   "TRANS_QTY" NUMBER(37,0) NOT NULL ENABLE,
   "TRANS_PRICE" NUMBER(5,2) NOT NULL ENABLE,
   CONSTRAINT "TRANSACTION_PK" PRIMARY KEY ("TRANS_ID") ENABLE
);

CREATE OR REPLACE TRIGGER "BI_TRANSACTION"
before insert on "TRANSACTION"
for each row
begin
  if :NEW."TRANS_ID" is null then
    select "trans_id".nextval into :NEW."TRANS_ID" from dual;
  end if;
end;

/
ALTER TRIGGER "BI_TRANSACTION" ENABLE;
```

APPENDIX E: DATA MANIPULATION LANGUAGE (DML)

INSERT

1) TABLE EMPLOYEE

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('1', 'NURAQILAH NABILA  
BINTI MD SABRE', '990531140490', '011-23785461', 'No.23, Jalan Dato Yusof  
Shahbudin 19, Taman Sentosa, 41200, Klang, Selangor', '1300', '01-MAR-20');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('2', 'MUHAMMAD AIMAN  
BIN AZHAR', '870602065681', '011-10598517', 'No.77, Lorong Sg Nibong 7, Taman  
Mewah Baru, Batu 3 ½, Jalan Kapar, Klang, Selangor', '2200', '29-MAY-17');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('3', 'CHUNG YEE CHEN',  
'9202225105071', '018-3950882', 'No.337, Jalan Klang Perdana 2C, Taman Klang  
Perdana, 41400, Klang, Selangor', '1800', '01-JUL-18');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('4', 'MOHD ABAS BIN MD  
HUSIN', '940718141695', '016-3596719', 'No.394, Jalan Dato' Tahir Manan, Taman  
Emas, 42220 Kapar, Klang, Selangor', '1800', '01-JUL-18');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('5', 'TING CHOO  
YUEN', '781221086011', '012-3553218', 'No.19, Jalan Samarinda 11, Taman Klang  
Indah, 41000, Klang, Selangor', '2400', '30-MAR-17');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('6', 'NUR AINN BINTI ADI',  
'990407100696', '018-7703306', 'No.31, Jalan Dato Ahmad Hamid 14, Taman  
Sentosa, 41200, Klang, Selangor', '1300', '01-JAN-20');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('7', 'MOHD SHAHRUL BIN  
KERMAN', '910727035697', '011-11554403', 'No.17, Lorong Samarinda 20C, Taman  
Mesra Alam, 41000, Klang, Selangor', '1300', '05-FEB-20');
```

```
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,  
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('8', 'HAIRUL HADAFI BIN  
HAMZAH', '881120125887', '018-3745311', 'No.26, Jalan Bentara 1, Taman Saga,  
41000, Klang, Selangor', '1700', '25-DEC-18');
```

```

INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('9', 'NOORHAYATI BINTI
MD ISA', '890510018290', '011-55501232', 'No.31, Jalan Dato Ahmad Hamid 23,
Taman Sentosa, Klang, Selangor', '1500', '20-OCT-19');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('10', 'MUHAMMAD
SHUKRI BIN SAMSUDIN', '960519045175', '017-3300931', 'No.25, Jalan Dato Yusof
Shahbudin 25, Taman Sentosa, Klang, Selangor', '1300', '04-JAN-20);
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('11', 'NORMAN BIN
MISRAN', '801025015235', '019-2643161', 'No.34, Jalan Hamzah Alang 31, Taman
Kapar Jaya, Klang, Selangor', '2000', '31-JUL-17');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('12', 'MUHAMMAD
SHAFIQ BIN HISHAM', '960205015683', '011-55516959', 'No.14, Jalan Dato Hamid
15, Taman Sentosa, Klang, Selangor', '1500', '02-APR-19');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('13', 'NORSOLIHAH BINTI
YUSOFF', '930425085500', '011-16072012', 'No.10, Lorong Hamzah Alang 80, Off
Persiaran Hamzah Alang, 42200 Kapar, Klang, Selangor', '1700', '28-AUG-18');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('14', 'ZAKARIA BIN MAT
YUSOF', '900403055127', '017-3949157', 'Lot No 34743, Jalan Seri Jaya, Kampung
Bukit Kapar, Klang, Selangor', '1700', '01-AUG-18');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('15', 'FAIZAL SHARIMAN
BIN MD REAZMI', '981127142561', '017-3631982', 'No.64, Jalan Indah 11, Off Jalan
Sungai Putus, 41400, Klang, Selangor', '1500', '30-OCT-19');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('16', 'GAN SIONG NIAN',
'950503102531', '011-55519660', 'No. B-4-5, Block B, Pangsapuri Bukit Kuda, Jalan
Perak, 41300, Klang, Selangor', '1500', '30-OCT-19');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('17', 'ROHAIDA BINTI
SAMSUDIN', '990125142638', '011-10502477', 'No. C0-14, Block C, Pangsapuri
Perepat Indah, Jalan Sulam, 42200 Kapar, Klang, Selangor', '1500', '28-DEC-19');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,

```

```

EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('18', 'THINAMANI A/P
NEELAMAGAM', '970717106452', '011-70239043', 'No.71, Jalan Meru Indah 5,
Taman Meru Indah, Klang, Selangor', '1300', '01-JAN-20');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('19', 'CHAI KUM LING',
'850102065521', '010-2575077', 'No.10, Lorong Temenggung 2A, Taman Sentosa
Perdana 2, Klang, Selangor', '1800', '05-JAN-28');
INSERT INTO EMPLOYEE (EMP_ID, EMP_NAME, EMP_IC, EMP_PHONENUM,
EMP_ADD, EMP_SALARY, EMP_HIREDATE) VALUES ('20', 'AQMAR DANISH BIN
HAIRULFITRI', '970818145037', '018-2749752', 'No.32, Jalan Dato Yusof Shahbudin
15, Taman Sentosa, Klang, Selangor', '1700', '28-JUL-18');

```

2) TABLE PRODUCT

```

INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('HFB-W125-0263-T', '8.5', '24', 'W125 METER CABLE TSK',
'58320');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('44830-KFV-BSH', '7.5', '19', 'W100 METER CABLE OE',
'60218');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('1S8-F6301-09', '17', '29', 'LC135 THROTTLE CABLE OE',
'29406');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-Y100-0263-0', '3.5', '12', 'Y100 METER CABLE OSK',
'29406');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('ESP-Y15ZR-EP001', '215', '8', 'Y15ZR EX PIPE RACING E4 2
32 MM ESPADA', '02846');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('SCK-LC-0282-63', '360', '11', 'LC135 BLOCK RACING
63.5MM SCK', '23999');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('HFB-W100-0316', '16.5', '24', 'W100 FOOTREST BRACKET
RH NKS', '82745');

```

```

INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('MEL-KIS-0013-E', '3.8', '16', 'KRISS HANDLE SWITCH RH
STARTER SUNMO', '01234');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-Y100-0261', '3.5', '30', 'Y100 BRAKE CABLE OSK',
'02846');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('ACC-GG001-UP', '5.5', '30', 'GASKET GUMP UP', '20458')
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-1152-0205', '21.5', '16', 'SRL1152 REAR SIGNAL ASSY
SET VISS', '20458');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('5BU-E1111-00', '90', '6', 'Y125 HEAD ASSY OE', '01234');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('5BU-WE13E-00', '468', '3', 'Y125 BLOCK OE', '29406');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YET-RXZ-0033-0E', '5.5', '30', 'RXZ STARTER SPRING OE',
'58320');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('HRV-RS', '118', '4', 'RS150 BOX CARRIER HRV GIVI',
'60218');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('EX5D-BL-H01', '70', '19', 'EX5D BODY COVER SET BLUE
HLD', '29406');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('2JG-F3145-00', '3.5', '30', 'OIL SEAL OE', '02846');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('API-RS-0070-160', '53', '24', 'RS150 IJECTOR RACING
160CC 10HOLE PISTOP', '23999');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-LC-0260-OSK', '5.5', '30', 'LC135 THROTTLE CABLE
OSK', '20458');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('02A00180', '40', '17', 'RS150 AIR FILTER RACING UMA',
'01234');

```

```

INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('ESP-RS-AF00059', '14', '30', 'RS150 AIR FILTER FOAM
ESPADA', '58693');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('BP-RS-HLM', '14', '30', 'RS150 BASKET P', '82745');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-Y110-0202', '11.5', '25', 'Y110 HEAD LAMP APP', '82745');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YET-Y125-0057', '20.5', '14', 'Y125 RING STD RIKEN', '58693');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-Y110-0500', '58', '4', 'Y110 FRONT FORK SET LH',
'01234');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-Y100-0202', '11.5', '25', 'Y110 HEAD LAMP APP',
'82745');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('5XK-F5168', '325', '6', 'Y125ZR SPORT RIM BLACK OE',
'23999');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('5YP-85790-00', '36', '10', 'LC135 THERMO SENSOR OE',
'29406');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('5TF-E5411-00', '55', '7', 'SRL 110 MAGNET COVER OE',
'60218');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('SPARX-NPR8GM-B', '4.8', '30', 'NPR 8GM PLUG SPARX',
'58320');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YET-LC-0069-UP', '1.5', '30', 'LC135 CLUCTH GASKET UP',
'01234');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('9-079-3-AH4-04', '18.3', '30', '4T YAMALUBE 10W4 0 SEMI
SYNTHETIC 1L', '60218');
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME,
SUPP_ID) VALUES ('YFB-SRLZR-04-01', '8.5', '30', 'SRLZR MAIN PIPE COVER
HLD', '02846');

```

```
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME, SUPP_ID) VALUES ('MST-KIS2-0008', '5.5', '30', 'KRISS2 GEAR LEVER KK, '58693');
```

```
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME, SUPP_ID) VALUES ('9555624001069', '9.5', '25', '4T REPSOL SAE4 0 FORMULA 1L', '29406');
```

```
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME, SUPP_ID) VALUES ('ESP-LC-EP00185', '167', '2', 'LC135 EX PIPE RACING V5 30MM ESPADA', '02846');
```

```
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME, SUPP_ID) VALUES ('ACC-LC-DM00001', '155', '6', 'LC135 REAR DISC SET MODIFY ESPADA', '82745');
```

```
INSERT INTO PRODUCT (PROD_ID, PROD_PRICE, PROD_QTY, PROD_NAME, SUPP_ID) VALUES ('ESP-LC-BK00136', '167.5', '21', 'LC135 BLOCK RACING 62 MM ESPADA', '60218');
```

3) TABLE SUPPLIER

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('20458', 'PRCOAT SDN BHD', '03-33234307', '46, Jalan Seruling 58, Taman Klang Jaya, 41200 Klang, Selangor');
```

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('04869', 'SHENWEI AUTO PARTS TRADING', '012-2695113', 'No 7-1, Jalan Klang Sentral 9/KU5, Klang Sentral, 41050 Klang, Selangor');
```

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('82745', 'WEST SUPPLIES SDN BHD', '03-61576688', '9, Jalan TSB 8, Taman Industri Sungai Buloh, 47810 Sungai Buloh, Selangor');
```

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('58320', 'A&P PARTS INDUSTRIES SDN BHD', '03-62517881', 'Jalan Segambut Atas, Taman Segambut, 51200 Kuala Lumpur, Wilayah Persekutuan Kuala Lumpur');
```

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('60218', 'ENGJAYA MARKETING SDN BHD', '06-3355228', 'Jalan Ttc 2, Cheng Industrial Estate, 75250 Melaka');
```

```
INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('29406', 'GLOBAL PACIFIC MANUFACTURING SDN BHD',
```

'03-60211668', 'No. 6, Jalan Kamunting 3, Perindustrian, Jalan Kamunting 2A/1, 48300 Bukit Beruntung, Selangor');

INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('02846', 'HL TRADING SDN BHD', '03-33426377', 'Wisma Tan, No.111, Jalan Kapar, 41400 Klang, Selangor');

INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('23999', 'MOTORCYCLE DEALERS HOLDINGS SDN BHD', '03-42916270', 'Lot 1285 & Lot 1308 Jalan KPAT 5, 68000 Ampang Jaya, Selangor');

INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('01234', 'TUSHIMA TRADING SDN BHD', '07-7731993', '86000, No.7, Jalan Desa 5/3, Taman Desa, 86000 Kluang, Johor');

INSERT INTO SUPPLIER (SUPP_ID, SUPP_NAME, SUPP_PHONENUM, SUPP_ADD) VALUES ('58693', 'UP PACKING SDN BHD', '05-5981006', '483, Kawasan Industri, 31100, Sungai Siput, Perak');

4) TABLE CUSTOMER

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-H0018', 'AH SIEW', '012-911 8933');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('303-L0002', 'ENG ANN', 'NULL');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-B0003', 'NULL', '03-33926230');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-E0003', 'SOON', '012-490 1190');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-T0025', 'NULL', '03-33588660');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-L0011', 'NULL', 'NULL');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-C0003', 'MR. TAN', '03-32791516');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-C0008', 'NULL', '013-253 9363');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('300-A0004', 'ANSON ONN', 'NULL');

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM) VALUES ('303-H0011', 'HENG LAI', '016-203 0566');

```

INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('303-C0003', 'CHAW WEI', '012-307 0133');
INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('303-B0003', 'NULL', '03-33926230');
INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('303-S0009', 'MR. TEE', '03-33415921');
INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('305-S0031', 'NULL', '016-378 7201');
INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('300-H0015', 'JOHN', '019-772 6596');
INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('303-T0001', 'MADAM LING', '03-51618510');
INSERT INTO CUSTOMER (CUST_ID, CUST_NAME, CUST_PHONENUM)
VALUES ('303-P0005', 'NULL', '03-55199115');

```

5) TABLE TRANSACTION

```

INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('1', 'YFB-LC-0260-OSK', '300-H0018', '1', '5.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('2', 'HFB-W125-0263-T', '300-H0018', '1', '8.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('3', '44830-KFV-BSH', '300-H0018', '3', '7.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('4', '1S8-F6301-09', '300-H0018', '2', '17');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('5', 'YFB-Y100-0263-O', '300-L0002', '1', '3.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('6', 'ESP-Y12ZR-EP001', '300-B0003', '1', '215');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('7', 'SCK-LC-0282-63', '300-B0003', '1', '360');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('8', '02A00180', '300-E0003', '1', '40');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('9', 'ESP-RS-AF00059', '300-E0003', '1', '14');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('10', 'BP-RS-HLM', '300-T0025', '2', '10');

```

```

INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('11', 'HFB-W100-0316', '300-L0011', '1', '16.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('12', 'MEL-KIS-0013-E', '300-L0011', '2', '13.8');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('13', 'YFB-Y110-0202', '300-C0003', '1', '11.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('14', 'YFB-Y100-0261', '300-C0003', '2', '3.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('15', 'ACC-GG001-UP', '300-C0003', '2', '5.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('16', 'YFB-1152-0205', '300-C0008', '1', '21.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('17', 'YET-Y125-0057', '300-A0004', '1', '20.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('18', 'YFB-Y110-0500', '300-A0004', '1', '58');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('19', '5XK-F5168', '300-A0004', '1', '32.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('20', '5BU-E1111-00', '300-A0004', '1', '90');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('21', '5BU-WE13E-00', '300-A0004', '1', '468');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('22', '5YP-85790-00', '303-H0011', '2', '36');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('23', '5TF-E5411-00', '303-H0011', '1', '55');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('24', 'YET-RXZ-0033-0E', '303-C0003', '2', '5.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('25', 'HRV-RS', '303-C0003', '1', '118');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('26', 'SPARX-NPR8GM-B', '303-B0003', '10', '4.8');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('27', 'YET-LC-0069-UP', '303-B0003', '10', '1.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('28', '9-079-3-AH4-04', '303-S0009', '24', '18.3');

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INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('29', 'YFB-SRLZR-04-01', '300-H0015', '1', '8.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('30', 'MST-KIS2-0008', '300-H0015', '3', '5.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('31', '9555624001069', '300-H0006', '12', '9.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('32', 'EX5D-BL-H01', '303-T0001', '1', '70');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('33', '2JG-F3145-00', '303-P0005', '10', '3.5');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('34', 'API-RS-0070-160', '300-E0003', '1', '53');
INSERT INTO TRANSACTION (TRANS_ID, PROD_ID, CUST_ID, TRANS_QTY,
TRANS_PRICE) VALUES ('35', 'ESP-LC-BLK00136', '300-E0003', '1', '167.5');

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6) TABLE INVOICE

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INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41132', '5', '02-NOV-19', '36.5',
'CREDIT CARD', '2', '300-H0018');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41133', '2', '18-NOV-19', '34',
'CREDIT CARD', '4', '300-H0018');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41134', '1', '24-NOV-19', '3.5',
'CASH', '6', '300-L0002');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41135', '2', '04-DEC-19', '575',
'CREDIT CARD', '8', '300-B0003');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41136', '2', '12-DEC-19', '54',
'CREDIT CARD', '10', '300-E0003');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41137', '2', '15-DEC-19', '20',
'CASH', '12', '300-T0025');

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INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41138', '3', '21-DEC-19', '44.1',
'CASH', '14', '300-L0011');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41139', '5', '24-DEC-19', '29.5',
'CASH', '16', '300-C0003');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41140', '1', '26-DEC-19', '21.5',
'CASH', '18', '300-C0008');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41141', '2', '31-DEC-19', '78.5',
'CASH', '20', '300-A0004');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41142', '3', '01-JAN-20', '883',
'CREDIT CARD', '1', '300-A0004');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41144', '3', '04-JAN-20', '127',
'CREDIT CARD', '3', '303-H0011');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41150', '3', '12-JAN-20', '129',
'CASH', '5', '303-C0003');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41155', '10', '18-JAN-20', '48',
'CREDIT CARD', '7', '303-B0003');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41156', '10', '20-JAN-20', '15',
'CASH', '9', '303-B0003');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41158', '24', '02-FEB-20', '439.2',
'CREDIT CARD', '11', '303-S0009');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41161', '1', '22-FEB-20', '30',
'CASH', '13', '305-S0031');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41163', '4', '01-MAR-20', '25',
'CASH', '15', '300-H0015');

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INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41164', '12', '03-MAR-20', '114',
'CASH', '17', '300-H0018');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41171', '1', '19-MAR-20', '70',
'CASH', '19', '303-T0001');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41174', '10', '27-MAR-200', '36',
'CASH', '18', '303-P0006');
INSERT INTO INVOICE (INV_ID, INV_ID, INV_DATE, INV_AMOUNT,
INV_PAYMETHOD, EMP_ID, CUST_ID) VALUES ('41180', '2', '04-APR-20', '220.6',
'CREDIT CARD', '8', '300-E0003');

```

UPDATE

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UPDATE EMPLOYEE SET EMP_PHONENUM = '018-2860149', EMP_ADD = 'No.
84. Lorong Hati 2, Taman Bunga, Jalan Bahagia, 41560, Klang, Selangor' WHERE
EMP_ID = 20;
UPDATE EMPLOYEE SET EMP_PHONE NUM = '011-27047821', EMP_SALARY =
1500 WHERE EMP_ID = 1;
UPDATE PRODUCT SET SUPP_ID = '01234' WHERE PROD_ID = 'SCK-LC-0282-
63';
UPDATE PRODUCT SET PROD_PRICE = 40, PROD_QTY = 10 WHERE PROD_ID
= 'YFB-Y110-0500';
UPDATE CUSTOMER SET CUST_NAME = 'HAZLIN', CUST_PHONE NUM = '013-
5839642' WHERE CUST_ID = '300-L0011';

```

DELETE

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DELETE FROM EMPLOYEE WHERE EMP_ID = 5;
DELETE FROM PRODUCT WHERE PROD_ID = '5BU-WE13E-00';
DELETE FROM PRODUCT WHERE PROD_ID = 'ESP-LC-EP00185';
DELETE FROM SUPPLIER WHERE SUPP_ID = '02846';

```

APPENDIX F: SAMPLE SCREENS OF YOUR HTML DB APPLICATION

