ICT200: INTRODUCTION TO DATABASE DESIGN

Semester MARCH 2023– AUGUST 2023

Final Report: *[E – Star Stationery Enterprise]*

PREPARED BY:

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Prepared for: TS. NOORFIZALFARID BIN MOHD NOOR

Remarks:

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MEMBERS' PROFILE

1.	NAME: NURAINAA BALQIS BINTI MOHD ADLY HAFEZ HEDAYAT GROUP: RCS1103B MATRIC NO: 2022770417 PROGRAM: CS110 ROLE: PROJECT MANAGER
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3.	NAME: NUR AUNI INSYIRAH BINTI HILMI HIZAM GROUP: RCS1103B MATRIC NO: 2022971293 PROGRAM: CS110 ROLE: DATABASE PROGRAMMER 2
4.	NAME: NURUL HAFSAH BINTI ABDUL HADI GROUP: RCS1103B MATRIC NO: 2022791939 PROGRAM: CS110 ROLE: DATABASE DESIGNER

INTRODUCTION TO ORGANIZATION

COMPANY BACKGROUND

E-Star Stationary Enterprise is a partnership company own by Mr Chua Beng Huat and his partner named Mr Chua Beng Ling. It was established since 2017 about seven years ago which offers a variety of Stationary products and services such as office equipment supply, photocopy, laminating, binding and rubber stamp. Moreover, this stationery shop is famous as a stationery supplier and photocopy shop in Arau, Perlis which is their second branch. E-Star Stationery Enterprise also provide office equipment as a supplier to the government.

E-Star Stationery Enterprise is located at 102, Tingkat Bawah Jln 3, Jln Arau-Kodiang, Kompleks Tok Arau, 02600 Arau, Perlis. Their operating hours starts at 10 a.m. until 9 p.m. and they open every day and have two working shifts. They have ten workers at both branches combined. They also have another branch which is their HQ branch at Changlun, Kedah.

The owner Mr Chua Beng Huat was graduated from University Utara Malaysia in Bachelor of Economy. He then worked as Operation Manager at a logistics company before starting his own business. The owner started his first business which is E-Star Stationary Changlun branch in 2006 when he was 29 years old. Then he proceeds to open his second branch at Arau, Perlis in 2017. After a while, the owner decided to start another business which a pet shop named C&O Pet Shop at Changlun, Kedah. Also, with his business partner.

This shop will run by their senior staff named Nur Athirah bt Imran if the owner is not around. This shop has two working shift, and two employees will be at the shop at the morning and during night the owner will be at the shop with the other employee. The employees will take a break from work from 1PM to 2PM for the morning shifts and 7PM to 8PM for night shift. Their staffs will do all the services that they have if there is a request from customers. They will also help the customer to find the goods that the customers want, then stock up their supply if they need to and be the cashier.

Vision: Our vision is to become the main choice of stationery store among Malaysians and to be the number one supplier among big companies for office supply.
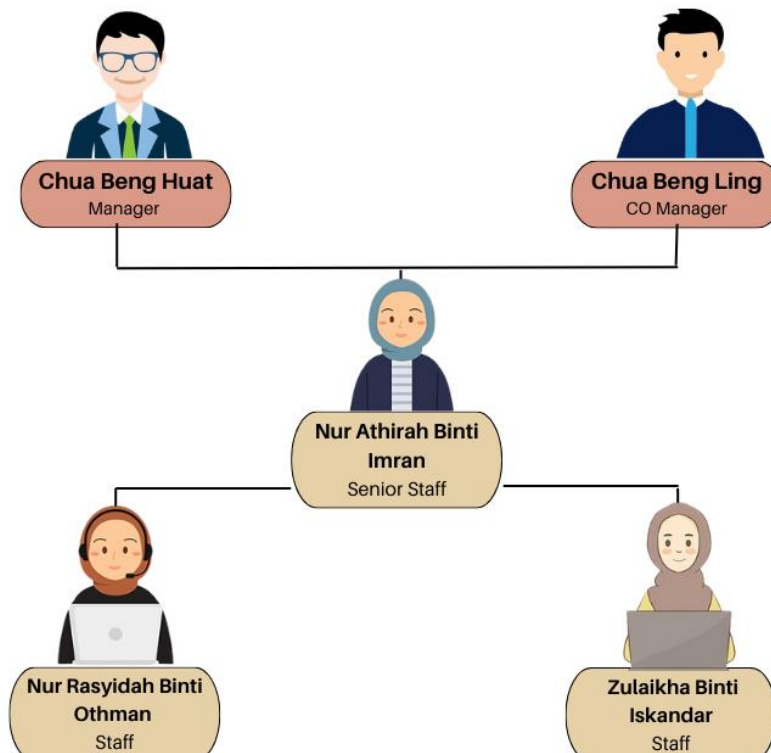
 Mission: Our mission is to earn customers' trust and for all occasions especially schools and offices and to provide the best quality of product and services.

Objectives:

Our focus is to supply variety of good quality stationery and office supplies to help Malaysians to find the best type of stationery for them and also to help many companies to find the most suitable type and brand of office supply for their office. As targeted, this company targeted customers are student, schools and offices who uses stationary daily.

ORGANIZATIONAL CHART

ORGANIZATIONAL CHARTS
FOR E-STAR STATIONERY
STORE ARAU

Chua Beng Huat
Manager

Chua Beng Ling
CO Manager

Nur Athirah Binti Imran
Senior Staff

Nur Rasyidah Binti Othman
Staff

Zulaikha Binti Iskandar
Staff

CURRENT SYSTEM DESCRIPTION

E-star Stationary is a company that sells stationary, office equipment supplies and variable of services such as printing, laminating, binding, stamp and others. They targeted all age level in around Perlis and Kedah. However, they do not have a database system to record their sales and stocks. They record all of company data manually including checking and keying stock. They referred of their weekly sales based on data documents manually from receipt into Excel at the end of week to get their total of sales. Transaction record of all invoices issued by E-Star Stationary are also prepared manually.

E-Star Stationary usually order stock directly from supplier. Then, the supplier will deliver the stocks directly to store and staffs will sort the new stock on the shelves to sell. But before stocking up item, staff will key in the stocks information manually.

Next, there are three types of customers. Such as new customer, membership customer and new membership. They need to walk in to store to purchase goods. There is no online purchase provided by the store. For customers that doesn't need staff assistance usually for services, they can directly look for the goods that they want by choosing themselves. But if the customers need staff assistance, they can walk to the counter and ask the staff for help. Then the staff will assist and provide what they need such as binding, printing, stamping and others. After that, customers will receive their goods and went to the cashier to proceed with the payment and done.

PROBLEM STATEMENT

This company faces a problem with their data which is not well organized, jumbled and were taken manually. The manual receipt books used to records all the data are being used by several people. This caused the data lost and mixed up so they could not keep track of their sales and stock update. This leads to workers getting confused and find it hard to for them to find available stock for certain product if being requested by customers. This company also needs to wait until the end of the week to get the actual information on sales as they are not able to get the current sales every day. To add on, since the company uses the manual key-in system, they have to keep a separate record of stock which causes extra workload for their workers. It is also easier to make mistake when key-in sales in Excel Sheets.

SUGGESTION SOLUTION

To create database system where there are tables to sort all attributes accordingly. All the data such as name of customer and name of product will be inserted into their specific attributes to achieve a well organized and systematic flow. This eases the tracking of records of customers, records of products sent by supliers and also keeps data in an efficient way so that it's easier for the staffs to keep track of the amount of stock available to make their next stock intake.

PROPOSED SYSTEM PROCESS
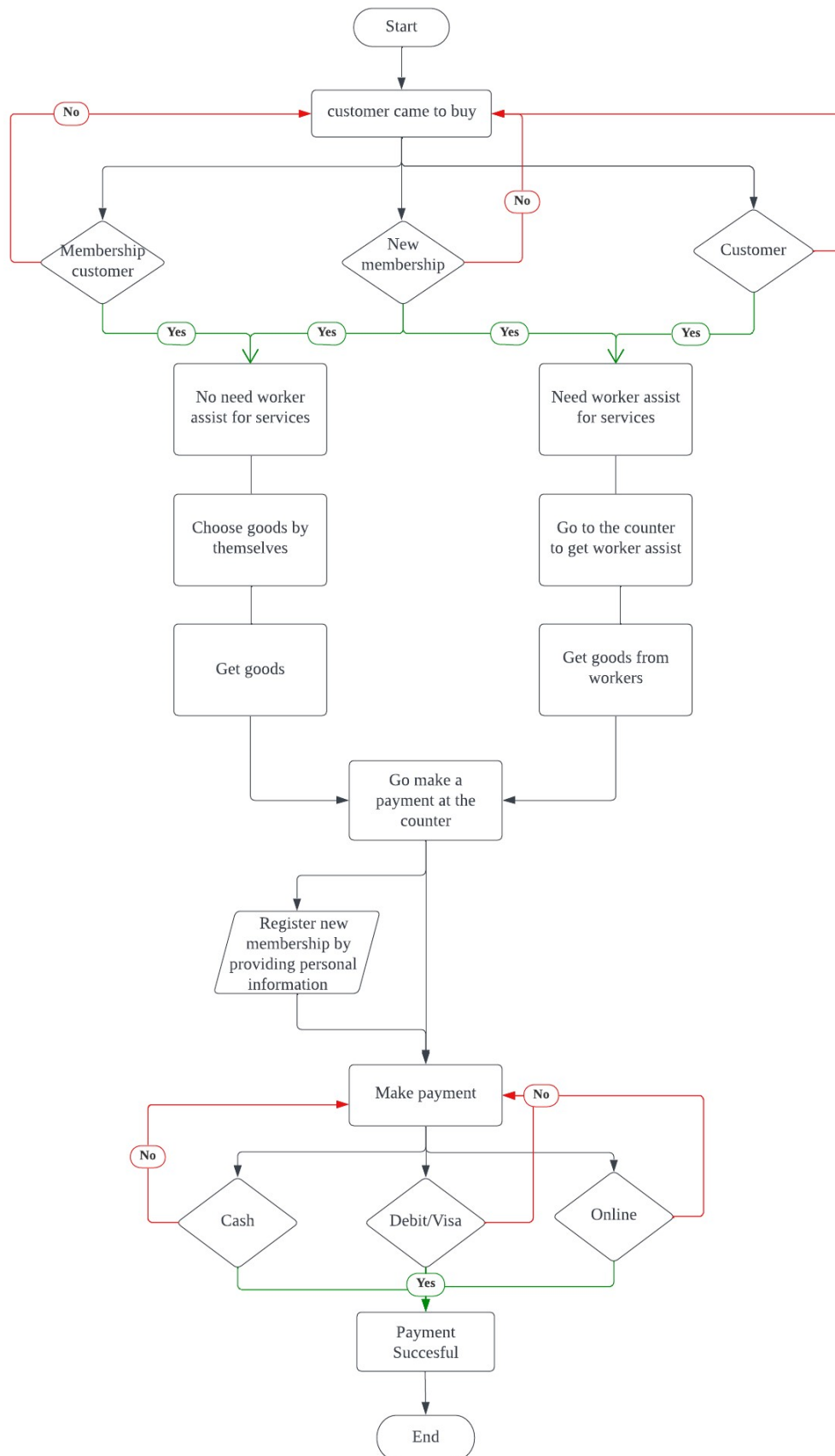
PROPOSED SYSTEM OBJECTIVES

1. To understand sales management in the stationary.
2. To management system design ERD for sales.
3. To develop sales management system.

PROPOSED SYSTEM BUSINESS RULES

1. Sales Management
   - The system will improve sales transactions, managing stock levels, generating invoices and tracking customer information.

2. Stock Management
   - The system will manage stock levels by recording new stock arrivals and update quantities.

3. Billing
   - The system will generate receipts for sales transactions with details such as customer ID, purchased items and total price.

ERD
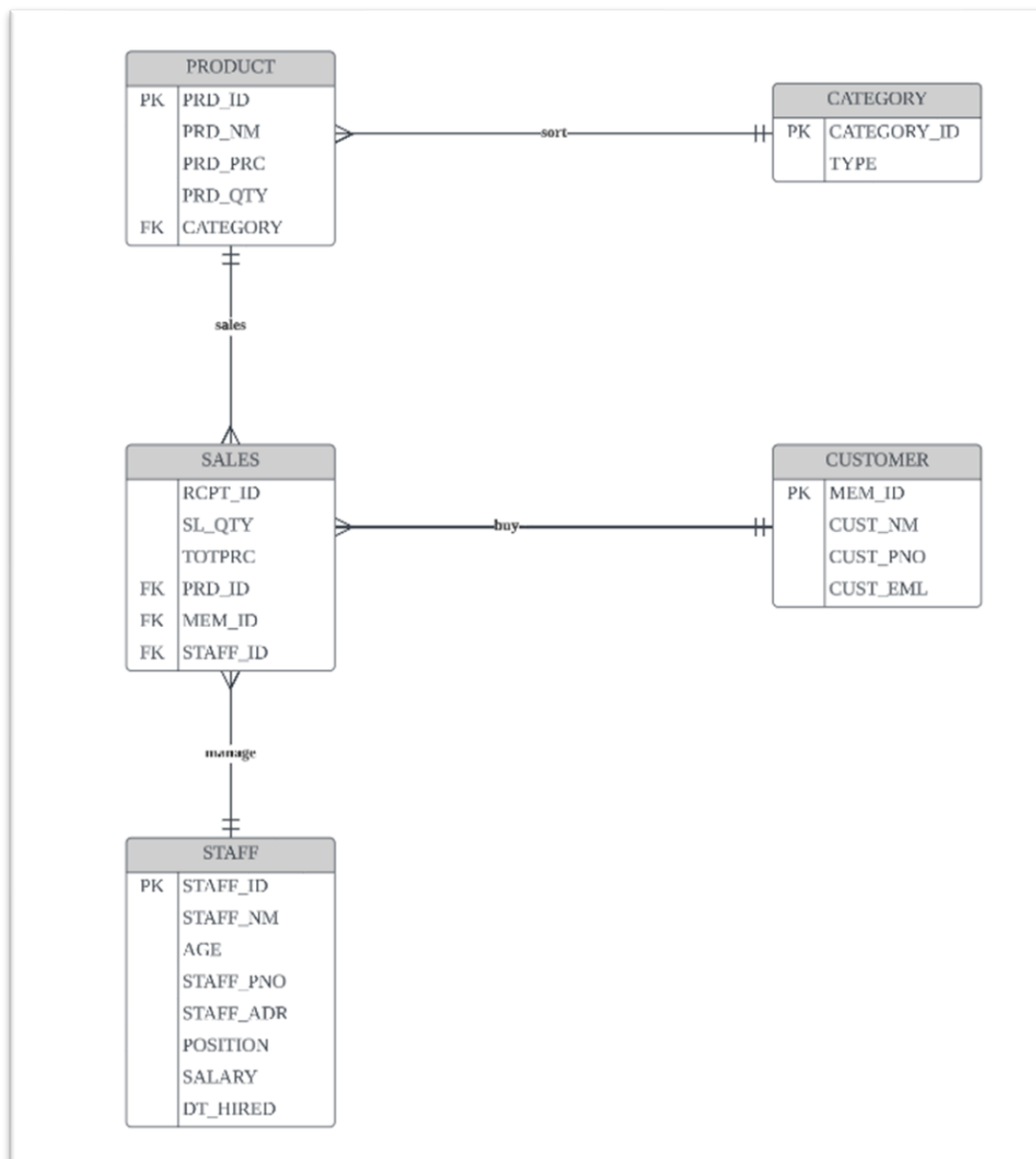
3NF RELATIONAL SCHEMA

CATEGORY (CATEGORY_ID, Type)

PRODUCT (PRD_ID, PRD_NM, PRD_PRC, PRD_QTY, CATEGORY_ID)

CUSTOMER (MEM_ID, CUST_NM, CUST_PNO, CUST_EML)

STAFF (STAFF_ID, STAFF_NM, AGE, STAFF_PNO, STAFF_ADR, POSITION, SALARY, DT_HIRED)

SALES (RCPT_ID, SL_QTY, TOTPRC, PRD_ID, MEM_ID, STAFF_ID)

DATA DICTIONARY

TABLE NAME	ATTRIBUTE NAME	CONTENTS	TYPE	FORMAT	REQUIRED	PK/FK	FK REFERENCE
CATEGORY	CATEGORY_ID	Category Personal ID	INTEGER		YES	PK	
	TYPE	Category Type	VARCHAR (50)	Xxxxxx			
PRODUCT	PRD_ID	Product ID	INTEGER		YES	PK	
	PRD_NM	Product Name	VARCHAR (50)	Xxxxxx			
	PRD_PRC	Product Price	DECIMAL (10,2)	Xxxxxx.xx			
	PRD_QTY	Product Quantity	INTEGER				
	CATEGORY_ID	Category Personal ID	INTEGER			FK	CATEGORY
CUSTOMER	MEM_ID	Member ID	INTEGER		YES	PK	
	CUST_NM	Customer Name	VARCHAR (50)	Xxxxxxx			
	CUST_PNO	Customer Phone Number	VARCHAR (20)	Xxxxxxx			
	CUST_EML	Customer Email	VARCHAR (100)	Xxxxxxxx			
STAFF	STAFF_ID		INTEGER			PK	
	STAFF_NM		VARCHAR (50)	Xxxxxxx			
	AGE		INTEGER				
	STAFF_PNO		VARCHAR (20)	Xxxxxxx			
	STAFF_ADR		VARCHAR(100)	Xxxxxxx			
	POSITION		VARCHAR(50)	Xxxxxxx			
	SALARY		DECIMAL(10,2)	Xxxxx.xx			
	DT_HIRED		DATE	DD-MM-YY			
SALES	RCPT_ID	Receipt ID	INTEGER				
	SL_QTY	Sales Quantity	INTEGER				
	TOTPRC	Total Price	DECIMAL(10,2)	Xxxxx.xx			

	MEM_ID	Member ID	INTEGER			FK	CUSTOMER
	STAFF_ID	Staff ID	INTEGER			FK	STAFF
	PRD_ID	Product ID	INTEGER			FK	PRODUCT

DATABASE IMPLEMENTATION

DATA DEFINITION LANGUAGE (DDL)

TABLE CATEGORY

CREATE TABLE Category (CATEGORY_ID INT PRIMARY KEY,
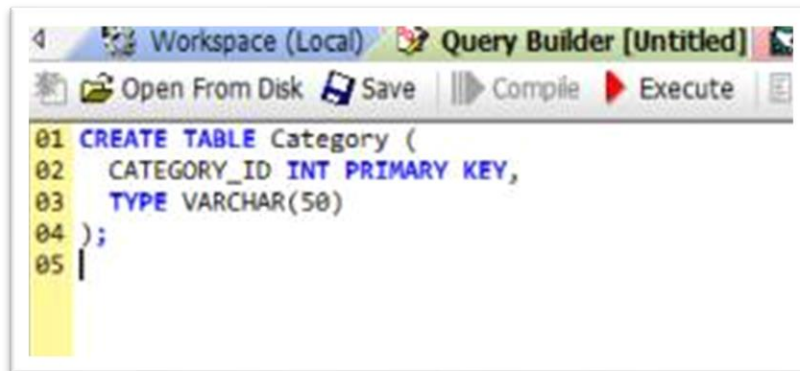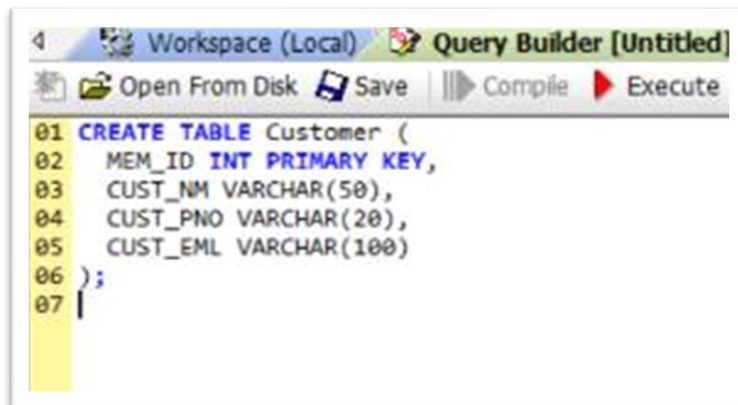
  TYPE VARCHAR(50));

TABLE PRODUCT

CREATE TABLE Product (PRD_ID INT PRIMARY KEY, PRD_NM VARCHAR(50), PRD_PRC
DECIMAL(10, 2), PRD_QTY INT, CATEGORY_ID INT, FOREIGN KEY (CATEGORY_ID) REFERENCES
Category(CATEGORY_ID));

TABLE CUSTOMER

CREATE TABLE Customer (MEM_ID INT PRIMARY KEY, CUST_NM VARCHAR(50), CUST_PNO VARCHAR(20), CUST_EML VARCHAR(100));
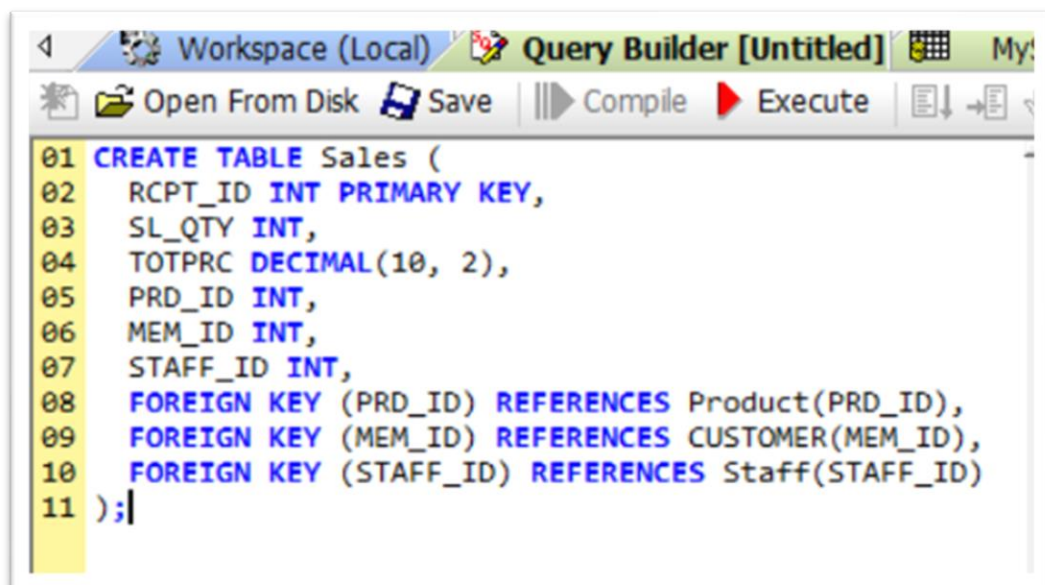

TABLE SALES

CREATE TABLE Sales (RCPT_ID INT,SL_QTY INT,TOTPRC DECIMAL(10, 2),PRD_ID INT,MEM_ID INT,STAFF_ID INT,

 FOREIGN KEY (PRD_ID) REFERENCES Product(PRD_ID),

 FOREIGN KEY (MEM_ID) REFERENCES Customer(MEM_ID),

 FOREIGN KEY (STAFF_ID) REFERENCES Staff(STAFF_ID));

DATA MANIPULATION LANGUAGE (DML)

TABLE CATEGORY

INSERT INTO Category (CATEGORY_ID, TYPE)

VALUES (1, 'Stationery'), (2, 'Office Supplies'), (3, 'Art and Craft'), (4, 'Writing Instruments');

```
01 INSERT INTO Category (CATEGORY_ID, TYPE)
02 VALUES (1, 'Stationery'),
03        (2, 'Office Supplies'),
04        (3, 'Art and Craft'),
05        (4, 'Writing Instruments');
06 |
```
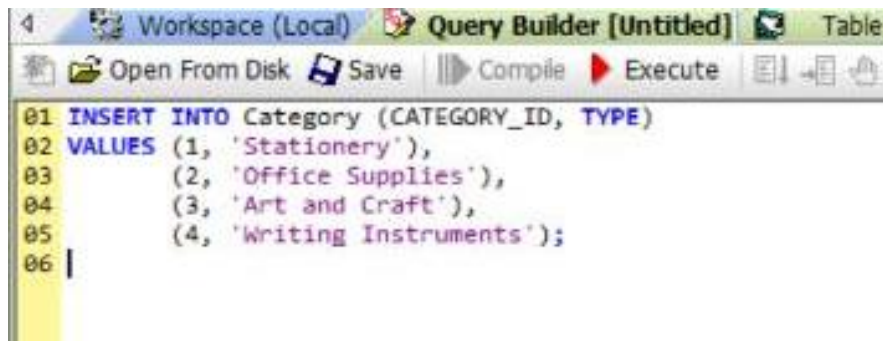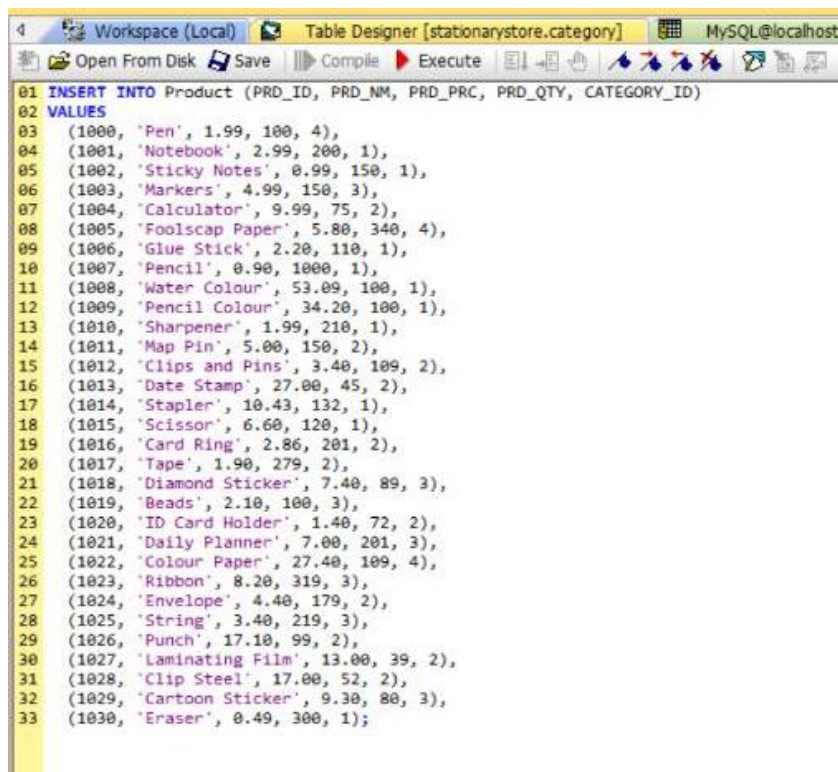
TABLE PRODUCT

INSERT INTO Product (PRD_ID, PRD_NM, PRD_PRC, PRD_QTY, CATEGORY_ID)

VALUES (1000, 'Pen', 1.99, 100, 4), (1001, 'Notebook', 2.99, 200, 1),

(1002, 'Sticky Notes', 0.99, 150, 1), (1003, 'Markers', 4.99, 150, 3),

(1004, 'Calculator', 9.99, 75, 2), (1005, 'Foolscap Paper', 5.80, 340, 4),

(1006, 'Glue Stick', 2.20, 110, 1),(1007, 'Pencil', 0.90, 1000, 1),

(1008, 'Water Colour', 53.09, 100, 1), (1009, 'Pencil Colour', 34.20, 100, 1),

(1010, 'Sharpener', 1.99, 210, 1), (1011, 'Map Pin', 5.00, 150, 2),

(1012, 'Clips and Pins', 3.40, 109, 2),(1013, 'Date Stamp', 27.00, 45, 2),

(1014, 'Stapler', 10.43, 132, 1),(1015, 'Scissor', 6.60, 120, 1),

(1016, 'Card Ring', 2.86, 201, 2),(1017, 'Tape', 1.90, 279, 2),

(1018, 'Diamond Sticker', 7.40, 89, 3), (1019, 'Beads', 2.10, 100, 3),

(1020, 'ID Card Holder', 1.40, 72, 2), (1021, 'Daily Planner', 7.00, 201, 3),

(1022, 'Colour Paper', 27.40, 109, 4), (1023, 'Ribbon', 8.20, 319, 3),

(1024, 'Envelope', 4.40, 179, 2), (1025, 'String', 3.40, 219, 3),

(1026, 'Punch', 17.10, 99, 2), (1027, 'Laminating Film', 13.00, 39, 2),

(1028, 'Clip Steel', 17.00, 52, 2), (1029, 'Cartoon Sticker', 9.30, 80, 3),

 (1030, 'Eraser', 0.49, 300, 1);

```
◄   Workspace (Local)    Table Designer [stationarystore.category]      MySQL@localhost

    Open From Disk   Save     Compile   ► Execute               ▲ ▲ ▲ ▲

01  INSERT INTO Product (PRD_ID, PRD_NM, PRD_PRC, PRD_QTY, CATEGORY_ID)
02  VALUES
03    (1000, 'Pen', 1.99, 100, 4),
04    (1001, 'Notebook', 2.99, 200, 1),
05    (1002, 'Sticky Notes', 0.99, 150, 1),
06    (1003, 'Markers', 4.99, 150, 3),
07    (1004, 'Calculator', 9.99, 75, 2),
08    (1005, 'Foolscap Paper', 5.80, 340, 4),
09    (1006, 'Glue Stick', 2.20, 110, 1),
10    (1007, 'Pencil', 0.90, 1000, 1),
11    (1008, 'Water Colour', 53.09, 100, 1),
12    (1009, 'Pencil Colour', 34.20, 100, 1),
13    (1010, 'Sharpener', 1.99, 210, 1),
14    (1011, 'Map Pin', 5.00, 150, 2),
15    (1012, 'Clips and Pins', 3.40, 109, 2),
16    (1013, 'Date Stamp', 27.00, 45, 2),
17    (1014, 'Stapler', 10.43, 132, 1),
18    (1015, 'Scissor', 6.60, 120, 1),
19    (1016, 'Card Ring', 2.86, 201, 2),
20    (1017, 'Tape', 1.90, 279, 2),
21    (1018, 'Diamond Sticker', 7.40, 89, 3),
22    (1019, 'Beads', 2.10, 100, 3),
23    (1020, 'ID Card Holder', 1.40, 72, 2),
24    (1021, 'Daily Planner', 7.00, 201, 3),
25    (1022, 'Colour Paper', 27.40, 109, 4),
26    (1023, 'Ribbon', 8.20, 319, 3),
27    (1024, 'Envelope', 4.40, 179, 2),
28    (1025, 'String', 3.40, 219, 3),
29    (1026, 'Punch', 17.10, 99, 2),
30    (1027, 'Laminating Film', 13.00, 39, 2),
31    (1028, 'Clip Steel', 17.00, 52, 2),
32    (1029, 'Cartoon Sticker', 9.30, 80, 3),
33    (1030, 'Eraser', 0.49, 300, 1);
```

TABLE CUSTOMER

INSERT INTO Customer (MEM_ID, CUST_NM, CUST_PNO, CUST_EML)

VALUES

  (01, 'Ahmad Bin Abdullah', '0123456789', 'ahmad.abdullah@gmail.com'),

  (02, 'Siti Binti Mohd Yusof', '0187654321', 'siti.yusof@gmail.com'),

  (03, 'Mohd Azman Bin Ibrahim', '0156789123', 'mohd.ibrahim@gmail.com'),

  (04, 'Nurul Ain Binti Abdul Rahman', '0189123456', 'nurul.rahman@gmail.com'),

  (05, 'Lim Chee Meng', '0154321987', 'lim.cheemeng@gmail.com'),

  (06, 'Tan Mei Ling', '0112233445', 'tan.meiling@gmail.com'),

  (07, 'Kumar Appu', '0198877665', 'kumar.appu@gmail.com'),

  (08, 'Saraswathi Devi', '0154433221', 'saraswathi.devi@gmail.com'),

  (09, 'Ahmad Malik Bin Hassan', '0167788990', 'ahmad.hassan@gmail.com'),

  (10, 'Nurul Huda Binti Mohd Nor', '0198877665', 'nurul.mohdnor@gmail.com'),

  (11, 'Mohamad Azhar Bin Mustafa', '0132211445', 'mohamad.mustafa@gmail.com'),

  (12, 'Rohani Binti Abu Bakar', '0123344556', 'rohani.abubakar@gmail.com'),

  (13, 'Arun Kumar', '0165544332', 'arun.kumar@gmail.com'),

(14, 'Norazlina Binti Ismail', '0121133445', 'norazlina.ismail@gmail.com'),

(15, 'Chin Wei Jie', '0189977665', 'chin.weijie@gmail.com'),

(16, 'Lee Hui Ling', '0134455667', 'lee.huiling@gmail.com'),

(17, 'Rajesh Nair', '0156677889', 'rajesh.nair@gmail.com'),

(18, 'Padmini Devi', '0178899667', 'padmini.devi@gmail.com'),

(19, 'Mohammad Ali Bin Ismail', '0189977665', 'mohammad.ismail@gmail.com'),

(20, 'Siti Norazah Binti Mohamad', '0167788990', 'siti.mohamad@gmail.com'),

(21, 'Tan Chin Huat', '0143322116', 'tan.chinhuat@gmail.com'),

(22, 'Wong Li Yan', '0154433221', 'wong.liyan@gmail.com'),

(23, 'Vimala Krishnan', '0198877665', 'vimala.krishnan@gmail.com'),

(24, 'Ramesh Naidu', '0134455667', 'ramesh.naidu@gail.com'),

(25, 'Nurul Syafiqah Binti Zainal', '0121133445', 'nurul.zainal@gmail.com'),

(26, 'Khoo Chee Leong', '0167788990', 'khoo.cheeleong@gmail.com'),

(27, 'Chen Mei Fang', '0178899667', 'chen.meifang@gmail.com'),

(28, 'Shahrul Azmi Bin Abdul Rahman', '01111427452', 'shahrul.234@gmail.com'),

(29, 'Nasha Emyllia Binti Izzudin', '01161092017', 'Nasha9807@gmail.com'),

(30, 'Nurainaa Balqis Binti Adly', '01153568014', 'Nuarainaa83@gmail.com');

```
   Workspace (Local)   MySQL@localhost (stationarystore.category)   Query Builder [U
   Open From Disk  Save   Compile  Execute
01 INSERT INTO Customer (MEM_ID, CUST_NM, CUST_PNO, CUST_EML)
02 VALUES
03   (01, 'Ahmad Bin Abdullah', '0123456789', 'ahmad.abdullah@gmail.com'),
04   (02, 'Siti Binti Mohd Yusof', '0187654321', 'siti.yusof@gmail.com'),
05   (03, 'Mohd Azman Bin Ibrahim', '0156789123', 'mohd.ibrahim@gmail.com'),
06   (04, 'Nurul Ain Binti Abdul Rahman', '0189123456', 'nurul.rahman@gmail.com'),
07   (05, 'Lim Chee Meng', '0154321987', 'lim.cheemeng@gmail.com'),
08   (06, 'Tan Mei Ling', '0112233445', 'tan.meiling@gmail.com'),
09   (07, 'Kumar Appu', '0198877665', 'kumar.appu@gmail.com'),
10   (08, 'Saraswathi Devi', '0154433221', 'saraswathi.devi@gmail.com'),
11   (09, 'Ahmad Malik Bin Hassan', '0167788990', 'ahmad.hassan@gmail.com'),
12   (10, 'Nurul Huda Binti Mohd Nor', '0198877665', 'nurul.mohdnor@gmail.com'),
13   (11, 'Mohamad Azhar Bin Mustafa', '0132211445', 'mohamad.mustafa@gmail.com'),
14   (12, 'Rohani Binti Abu Bakar', '0123344556', 'rohani.abubakar@gmail.com'),
15   (13, 'Arun Kumar', '0165544332', 'arun.kumar@gmail.com'),
16   (14, 'Norazlina Binti Ismail', '0121133445', 'norazlina.ismail@gmail.com'),
17   (15, 'Chin Wei Jie', '0189977665', 'chin.weijie@gmail.com'),
18   (16, 'Lee Hui Ling', '0134455667', 'lee.huiling@gmail.com'),
19   (17, 'Rajesh Nair', '0156677889', 'rajesh.nair@gmail.com'),
20   (18, 'Padmini Devi', '0178899667', 'padmini.devi@gmail.com'),
21   (19, 'Mohammad Ali Bin Ismail', '0189977665', 'mohammad.ismail@gmail.com'),
22   (20, 'Siti Norazah Binti Mohamad', '0167788990', 'siti.mohamad@gmail.com'),
23   (21, 'Tan Chin Huat', '0143322116', 'tan.chinhuat@gmail.com'),
24   (22, 'Wong Li Yan', '0154433221', 'wong.liyan@gmail.com'),
25   (23, 'Vimala Krishnan', '0198877665', 'vimala.krishnan@gmail.com'),
26   (24, 'Ramesh Naidu', '0134455667', 'ramesh.naidu@gail.com'),
27   (25, 'Nurul Syafiqah Binti Zainal', '0121133445', 'nurul.zainal@gmail.com'),
28   (26, 'Khoo Chee Leong', '0167788990', 'khoo.cheeleong@gmail.com'),
29   (27, 'Chen Mei Fang', '0178899667', 'chen.meifang@gmail.com'),
30   (28, 'Shahrul Azmi Bin Abdul Rahman', '01111427452', 'shahrul.234@gmail.com'),
31   (29, 'Nasha Emyllia Binti Izzudin', '01161092017', 'Nasha9807@gmail.com'),
32   (30, 'Nurainaa Balqis Binti Adly', '01153568014', 'Nuarainaa83@gmail.com');
33
```

TABLE STAFF

INSERT INTO Staff (STAFF_ID, STAFF_NM, AGE, STAFF_PNO, STAFF_ADR, POSITION, SALARY, DT_HIRED)

VALUES

  (10, 'Chua Beng Huat', 46, '0123456789', 'No123 Taman Mimi 06010 Changloon,Kedah', 'Manager', 5000.00, '0000-00-00'),

  (20, 'Chua Beng Ling', 43, '0187654321', 'No124 Taman Mimi 06010 Changloon,Kedah', 'Co Manager', 4500.00, '0000-00-00'),

  (30, 'Nur Athirah Binti Imran', 28, '0146789123', 'No23 Taman Sri Wang 02500 Arau, Perlis', 'Senior Staff', 2000.00, '2021-06-01'),

  (40, 'Nur Rasyidah Binti Othman', 25, '0191234560', 'No23 Taman Sri Wang 02500 Arau, Perlis', 'Staff', 1500.00, '2022-08-10'),

  (50, 'Zulaikha Binti Iskandar', 23, '0143219879', 'No23 Taman Sri Wang 02500 Arau, Perlis', 'Staff', 1500.00, '2023-09-05');
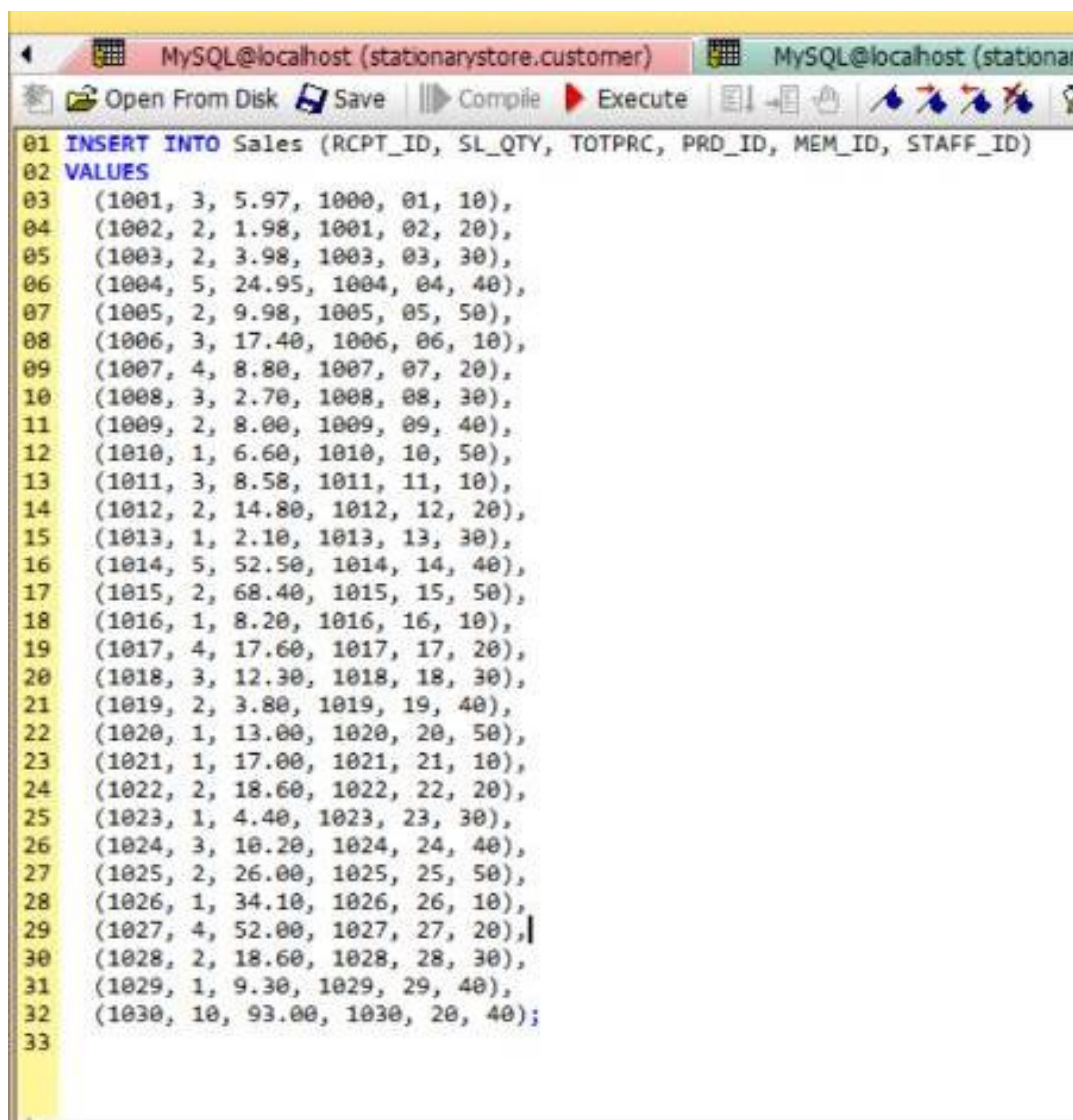

TABLE SALES

INSERT INTO Sales (RCPT_ID, SL_QTY, TOTPRC, PRD_ID, MEM_ID, STAFF_ID)

VALUES

 (1001, 3, 5.97, 1000, 01, 10), (1004, 3, 5.97, 1000, 01, 10), (1009, 2, 1.98, 1001, 02, 20),

 (1012, 2, 3.98, 1003, 03, 30), (1017, 5, 24.95, 1004, 04, 40), (1020, 2, 9.98, 1005, 05, 50),

 (1015, 3, 17.40, 1006, 06, 10), (1009, 4, 8.80, 1007, 07, 20), (1006, 3, 2.70, 1008, 08, 30),

 (1017, 2, 8.00, 1009, 09, 40), (1026, 1, 6.60, 1010, 10, 50), (1022, 3, 8.58, 1011, 11, 10),

 (1008, 2, 14.80, 1012, 12, 20), (1001, 1, 2.10, 1013, 13, 30), (1019, 5, 52.50, 1014, 14, 40),

 (1012, 2, 68.40, 1015, 15, 50), (1007, 1, 8.20, 1016, 16, 10), (1014, 2, 1.98, 1001, 02, 20),

 (1003, 2, 3.98, 1003, 03, 30), (1004, 5, 24.95, 1004, 04, 40), (1005, 2, 9.98, 1005, 05, 50),

 (1006, 3, 17.40, 1006, 06, 10), (1007, 4, 8.80, 1007, 07, 20), (1008, 3, 2.70, 1008, 08, 30),

(1009, 2, 8.00, 1009, 09, 40), (1011, 1, 6.60, 1010, 10, 50), (1018, 3, 8.58, 1011, 11, 10),

(1020, 2, 14.80, 1012, 12, 20), (1019, 1, 2.10, 1013, 13, 30), (1004, 5, 52.50, 1014, 14, 40),

(1001, 2, 68.40, 1015, 15, 50), (1005, 1, 8.20, 1016, 16, 10), (1030, 4, 17.60, 1017, 17, 20),

(1030, 3, 12.30, 1018, 18, 30),(1017, 2, 3.80, 1019, 19, 40), (1007, 1, 6.60, 1010, 10, 50),

(1004, 3, 8.58, 1011, 11, 10), (1013, 2, 14.80, 1012, 12, 20), (1018, 1, 2.10, 1013, 13, 30),

(1014, 5, 52.50, 1014, 14, 40), (1015, 2, 68.40, 1015, 15, 50), (1016, 1, 8.20, 1016, 16, 10),

(1017, 4, 17.60, 1017, 17, 20), (1018, 3, 12.30, 1018, 18, 30), (1019, 2, 3.80, 1019, 19, 40),

(1020, 1, 13.00, 1020, 20, 50), (1021, 1, 17.00, 1021, 21, 10), (1022, 2, 18.60, 1022, 22, 20),

(1023, 1, 4.40, 1023, 23, 30), (1024, 3, 10.20, 1024, 24, 40), (1025, 2, 26.00, 1025, 25, 50),

(1026, 1, 34.10, 1026, 26, 10), (1027, 4, 52.00, 1027, 27, 20), (1028, 2, 18.60, 1028, 28, 30),

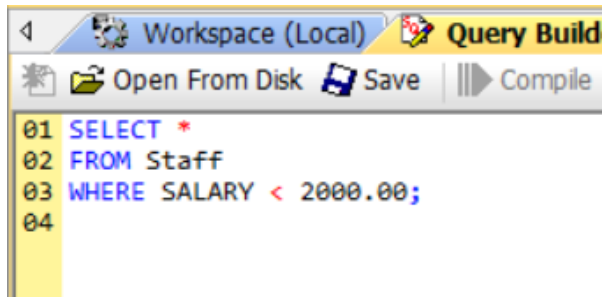(1029, 1, 9.30, 1029, 29, 40), (1030, 10, 93.00, 1030, 20, 40);

```
                MySQL@localhost (stationarystore.customer)        MySQL@localhost (stationar
    Open From Disk   Save    Compile   Execute

01 INSERT INTO Sales (RCPT_ID, SL_QTY, TOTPRC, PRD_ID, MEM_ID, STAFF_ID)
02 VALUES
03    (1001, 3, 5.97, 1000, 01, 10),
04    (1002, 2, 1.98, 1001, 02, 20),
05    (1003, 2, 3.98, 1003, 03, 30),
06    (1004, 5, 24.95, 1004, 04, 40),
07    (1005, 2, 9.98, 1005, 05, 50),
08    (1006, 3, 17.40, 1006, 06, 10),
09    (1007, 4, 8.80, 1007, 07, 20),
10    (1008, 3, 2.70, 1008, 08, 30),
11    (1009, 2, 8.00, 1009, 09, 40),
12    (1010, 1, 6.60, 1010, 10, 50),
13    (1011, 3, 8.58, 1011, 11, 10),
14    (1012, 2, 14.80, 1012, 12, 20),
15    (1013, 1, 2.10, 1013, 13, 30),
16    (1014, 5, 52.50, 1014, 14, 40),
17    (1015, 2, 68.40, 1015, 15, 50),
18    (1016, 1, 8.20, 1016, 16, 10),
19    (1017, 4, 17.60, 1017, 17, 20),
20    (1018, 3, 12.30, 1018, 18, 30),
21    (1019, 2, 3.80, 1019, 19, 40),
22    (1020, 1, 13.00, 1020, 20, 50),
23    (1021, 1, 17.00, 1021, 21, 10),
24    (1022, 2, 18.60, 1022, 22, 20),
25    (1023, 1, 4.40, 1023, 23, 30),
26    (1024, 3, 10.20, 1024, 24, 40),
27    (1025, 2, 26.00, 1025, 25, 50),
28    (1026, 1, 34.10, 1026, 26, 10),
29    (1027, 4, 52.00, 1027, 27, 20),
30    (1028, 2, 18.60, 1028, 28, 30),
31    (1029, 1, 9.30, 1029, 29, 40),
32    (1030, 10, 93.00, 1030, 20, 40);
33
```

SIMPLE SQL QUERIES QUESTION

1.Staff with salary below 2000
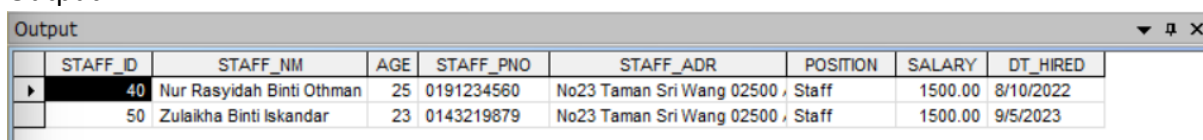
```
01 SELECT *
02 FROM Staff
03 WHERE SALARY < 2000.00;
04
```
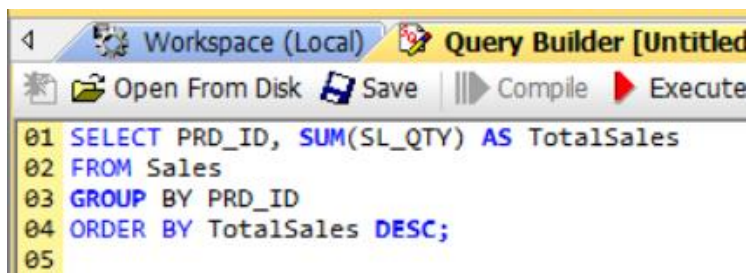
Output:

STAFF_ID	STAFF_NM	AGE	STAFF_PNO	STAFF_ADR	POSITION	SALARY	DT_HIRED
40	Nur Rasyidah Binti Othman	25	0191234560	No23 Taman Sri Wang 02500	Staff	1500.00	8/10/2022
50	Zulaikha Binti Iskandar	23	0143219879	No23 Taman Sri Wang 02500	Staff	1500.00	9/5/2023

2. Retrieve the total sales for each product, sorted in descending order of the total sales

```
01 SELECT PRD_ID, SUM(SL_QTY) AS TotalSales
02 FROM Sales
03 GROUP BY PRD_ID
04 ORDER BY TotalSales DESC;
05
```

Output:

Output

PRD_ID	TotalSales
▶ 1014	30
1030	20
1004	20
1011	18
1007	16
1017	16
1018	12
1008	12
1000	12
1012	12
1015	12
1006	12
1019	8
1009	8
1001	8
1003	8
1005	8
1027	8
1010	6
1013	6
1024	6
1016	6
1028	4
1022	4
1025	4
1029	2
1020	2
1021	2
1023	2
1026	2

3. All customers who have a phone number ending with '5' and an email address ending with '@gmail.com'.

```
01  SELECT *
02  FROM Customer
03  WHERE CUST_PNO LIKE '%5' AND CUST_EML LIKE '%@gmail.com';
04  |
```

Output:

MEM_ID	CUST_NM	CUST_PNO	CUST_EML
6	Tan Mei Ling	0112233445	tan.meiling@gmail.com
7	Kumar Appu	0198877665	kumar.appu@gmail.com
10	Nurul Huda Binti Mohd Nor	0198877665	nurul.mohdnor@gmail.com
11	Mohamad Azhar Bin Mustafa	0132211445	mohamad.mustafa@gmail.com
14	Norazlina Binti Ismail	0121133445	norazlina.ismail@gmail.com
15	Chin Wei Jie	0189977665	chin.weijie@gmail.com
19	Mohammad Ali Bin Ismail	0189977665	mohammad.ismail@gmail.com
23	Vimala Krishnan	0198877665	vimala.krishnan@gmail.com
25	Nurul Syafiqah Binti Zainal	0121133445	nurul.zainal@gmail.com

4. Retrieve all sales records made by staff members whose position is either "Manager" or "Co Manager".

```
01 SELECT s.*, st.POSITION
02 FROM Sales s
03 JOIN Staff st ON s.STAFF_ID = st.STAFF_ID
04 WHERE st.POSITION = 'Manager' OR st.POSITION = 'Co Manager'
05 |
```

Output:

RCPT_ID	SL_QTY	TOTPRC	PRD_ID	MEM_ID	STAFF_ID	POSITION
1005	1	8.20	1016	16	10	Manager
1004	3	8.58	1011	11	10	Manager
1016	1	8.20	1016	16	10	Manager
1021	1	17.00	1021	21	10	Manager
1026	1	34.10	1026	26	10	Manager
1001	3	5.97	1000	1	10	Manager
1004	3	5.97	1000	1	10	Manager
1015	3	17.40	1006	6	10	Manager
1022	3	8.58	1011	11	10	Manager
1007	1	8.20	1016	16	10	Manager
1006	3	17.40	1006	6	10	Manager
1018	3	8.58	1011	11	10	Manager
1005	1	8.20	1016	16	10	Manager
1004	3	8.58	1011	11	10	Manager
1016	1	8.20	1016	16	10	Manager
1021	1	17.00	1021	21	10	Manager
1026	1	34.10	1026	26	10	Manager
1009	2	1.98	1001	2	20	Co Manager
1009	4	8.80	1007	7	20	Co Manager
1008	2	14.80	1012	12	20	Co Manager
1014	2	1.98	1001	2	20	Co Manager
1007	4	8.80	1007	7	20	Co Manager
1020	2	14.80	1012	12	20	Co Manager
1030	4	17.60	1017	17	20	Co Manager
1013	2	14.80	1012	12	20	Co Manager
1017	4	17.60	1017	17	20	Co Manager
1022	2	18.60	1022	22	20	Co Manager
1027	4	52.00	1027	27	20	Co Manager
1009	2	1.98	1001	2	20	Co Manager
1009	4	8.80	1007	7	20	Co Manager

5. Sum total price of current sales divide by categories.

```
01 SELECT p.Category_ID, SUM(s.TOTPRC) AS TotalSum
02 FROM Sales s
03 JOIN Product p ON s.PRD_ID = p.PRD_ID
04 GROUP BY p.Category_ID;
05 |
```

Output:

Category_ID	TotalSum
1	553.26
2	314.04
3	96.86
4	50.50

6. Calculate the sum of total sales price and count the number of distinct receipts id values in the Sales table. The result will be ordered by the total sales count in ascending order and the total sum of prices current sales in ascending order as well

```
01 SELECT SUM(TOTPRC) AS TOTALSUM, COUNT(RCPT_ID) AS TOTALSALES
02 FROM Sales
03 ORDER BY TOTALSALES, TOTALSUM;
04
```

Output:

TOTALSUM	TOTALSALES
1014.66	56

REFERENCES

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From Interview:

- Mister Chua Beng Huat, Manager, 7 May 2023

-Miss Nur Athirah Binti Imran, Senior Staff, 10 May 2023