

Table of Contents

Table of Contents	1
E-Bookstore Database System.....	2
Introduction	2
Business Rules.....	2
Entity Relationship Diagram – Crow’s Foot Notation	3
Database Schema.....	4
SQL – Data Definition Language (DDL).....	4
SQL – Data Manipulation Language (DML)	9

E-Bookstore Database System

Introduction

The Asia Pacific University (APU) bookstore has an astounding collection of books spanning across a wide range of genres picked from different publishers. As the world swings towards commercial digitalisation, the bookstore would like to begin the quest to grow its business to a new height through the development of an e-bookstore. Therefore, an e-bookstore database management system has been developed to live up to this vision, with hopes that it can streamline the process of organizing and centralizing the increasing, massive volumes of data in the database, which helps to simplify information retrieval processes and boost the performance of the system.

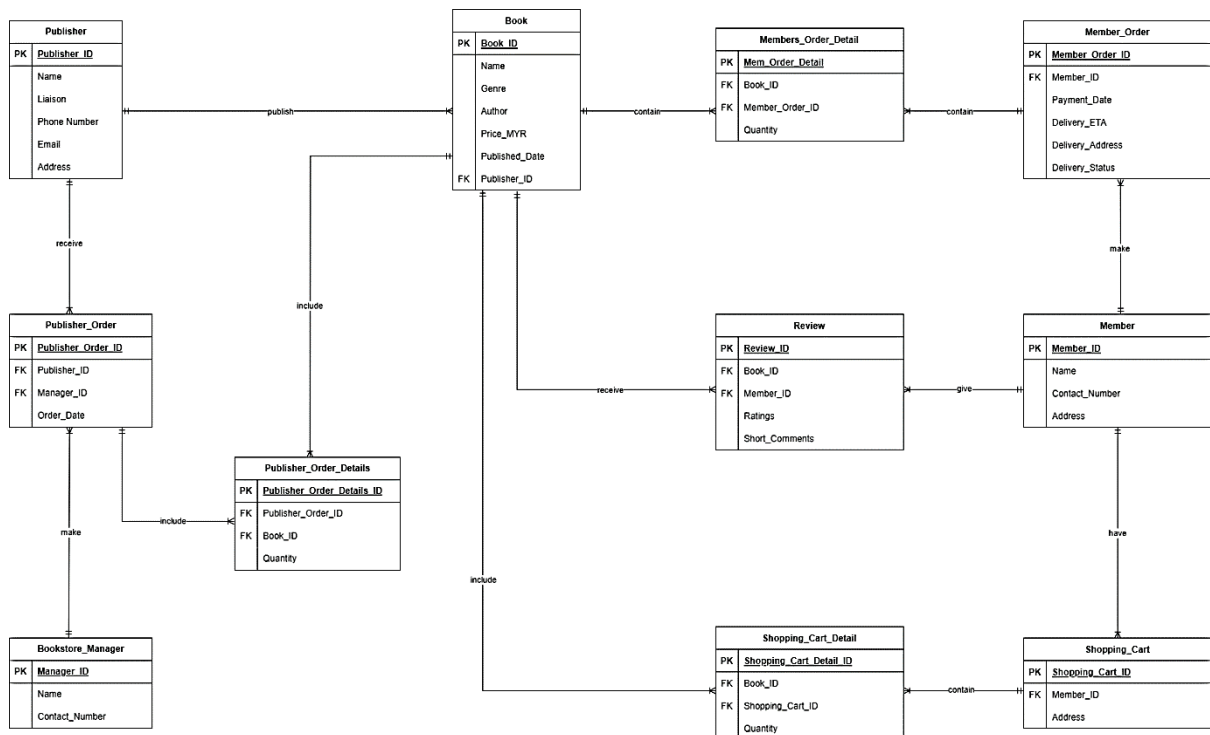
Business Rules

Several business rules are listed below to design the bookstore database efficiently:

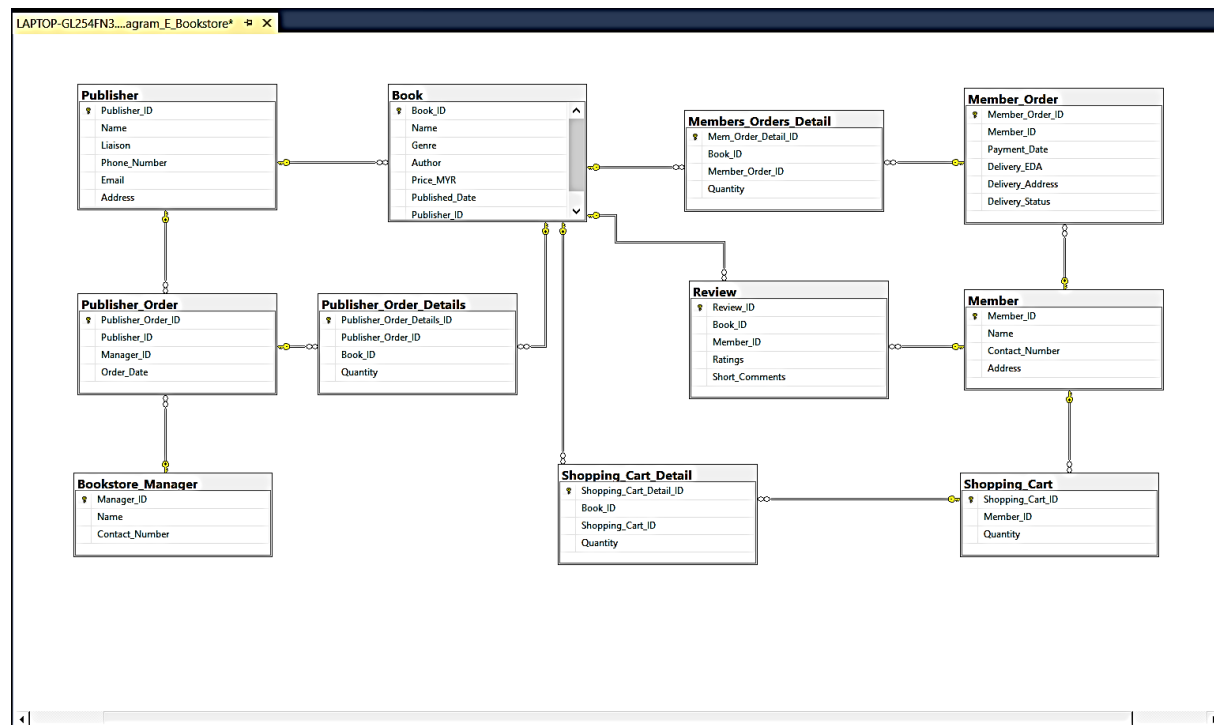
1. A bookstore manager can make several book orders with different publishers; however, each order can only be made by one manager.
2. Each book order is sent to one publisher, but a publisher can receive many orders from multiple different publishers.
3. One publisher can publish many books with different genres; however, a book is published by one publisher.
4. An order received by the publisher can contain many books, and each book can be included in multiple book orders.
5. A bookstore member can give reviews to multiple books, and each book can receive many reviews from many bookstore members.
6. A member of the bookstore can make many book orders, but each book order is placed by one member.

7. A bookstore member can have many online shopping carts; however, each cart belongs to one member only.
8. A book can have many orders from different bookstore members, and each book order made by a member can belong to many books.
9. A book can be added to multiple online shopping carts, and each cart can also have multiple books.

Entity Relationship Diagram – Crow's Foot Notation



Database Schema



SQL – Data Definition Language (DDL)

Assignment.sql - L_254FN3\Victor (55)

```

-- Create database
CREATE DATABASE APU_Online_Bookstore;

-- Create tables
USE APU_Online_Bookstore;

CREATE TABLE Publisher (
    Publisher_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Name nvarchar(50),
    Liaison nvarchar(50),
    Phone_Number nvarchar(50),
    Email nvarchar(50),
    Address nvarchar(50)
);

CREATE TABLE Bookstore_Manager (
    Manager_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Name nvarchar(50),
    Contact_Number nvarchar(50)
);

CREATE TABLE Publisher_Order (
    Publisher_Order_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Publisher_ID nvarchar(50) FOREIGN KEY REFERENCES Publisher(Publisher_ID),
    Manager_ID nvarchar(50) FOREIGN KEY REFERENCES Bookstore_Manager(Manager_ID),
    Order_Date date
);

CREATE TABLE Book (
    Book_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Name nvarchar(50),
    Genre nvarchar(50),
    Author nvarchar(50),
    Price_MYR decimal(10,2),
    Published_Date date,
    Publisher_ID nvarchar(50) FOREIGN KEY REFERENCES Publisher(Publisher_ID)
);

CREATE TABLE Publisher_Order_Details (

```

100 %
 Connected: (1/1) | LAPTOP-GL254FN3 (16.0 RTM) | LAPTOP-GL254FN3\Victor... | master | 00:00:00 | 0 rows

```

Assignment.sql - L:\254FN3\Victor (55)
CREATE TABLE Publisher_Order_Details (
    Publisher_Order_Details_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Publisher_Order_ID nvarchar(50) FOREIGN KEY REFERENCES Publisher_Order(Publisher_Order_ID),
    Book_ID nvarchar(50) FOREIGN KEY REFERENCES Book(Book_ID),
    Quantity int
);

CREATE TABLE Member (
    Member_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Name nvarchar(50),
    Contact_Number nvarchar(50),
    Address nvarchar(50)
);

CREATE TABLE Member_Order (
    Member_Order_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Member_ID nvarchar(50) FOREIGN KEY REFERENCES Member(Member_ID),
    Payment_Date date,
    Delivery_EDA date,
    Delivery_Address nvarchar(50),
    Delivery_Status nvarchar(50)
);

CREATE TABLE Shopping_Cart (
    Shopping_Cart_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Member_ID nvarchar(50) FOREIGN KEY REFERENCES Member(Member_ID),
    Quantity int
);

CREATE TABLE Review (
    Review_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Book_ID nvarchar(50) FOREIGN KEY REFERENCES Book(Book_ID),
    Member_ID nvarchar(50) FOREIGN KEY REFERENCES Member(Member_ID),
    Ratings int,
    Short_Comments nvarchar(50)
);

CREATE TABLE Members_Orders_Detail (
    Mem_Order_Detail_ID nvarchar(50) NOT NULL PRIMARY KEY,

```

100 %
 % Connected. (1/1) LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3\Victor... master 00:00:00 0 rows

```

Assignment.sql - L:\254FN3\Victor (55)
CREATE TABLE Members_Orders_Detail (
    Mem_Order_Detail_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Book_ID nvarchar(50) FOREIGN KEY REFERENCES Book(Book_ID),
    Member_Order_ID nvarchar(50) FOREIGN KEY REFERENCES Member_Order(Member_Order_ID),
    Quantity int
);

CREATE TABLE Shopping_Cart_Detail (
    Shopping_Cart_Detail_ID nvarchar(50) NOT NULL PRIMARY KEY,
    Book_ID nvarchar(50) FOREIGN KEY REFERENCES Book(Book_ID),
    Shopping_Cart_ID nvarchar(50) FOREIGN KEY REFERENCES Shopping_Cart(Shopping_Cart_ID),
    Quantity int
);

-- Insert data into the tables
INSERT INTO Publisher (Publisher_ID, Name, Liaison, Phone_Number, Email, Address)
VALUES
    ('P001', 'Crayson', 'Kavi', '012-958 7863', 'kavi@crayson.com', 'Kuala Lumpur'),
    ('P002', 'Oxford', 'Darshan', '016-582 1420', 'darshan@oxford.com', 'Petaling Jaya'),
    ('P003', 'Wiley', 'Bryan', '017-785 6479', 'bryan@wiley.com', 'Subang Jaya'),
    ('P004', 'Scholastic', 'Wendy', '019-123 5210', 'wendy@scholastic.com', 'Subang Jaya'),
    ('P005', 'McGraw-Hill', 'Sabri', '016-885 2231', 'sabri@mcgraw-hill.com', 'Johor Bahru'),
    ('P006', 'Marvel', 'Rajesh', '012-541 0232', 'rajesh@marvel.com', 'Petaling Jaya'),
    ('P007', 'Pelangi', 'Nicole', '012-958 7864', 'nicole@pelangi.com', 'Johor Bahru'),
    ('P008', 'Sasbadi', 'Nikita', '016-582 1421', 'nikita@sasbadi.com', 'Kuala Lumpur'),
    ('P009', 'Bloombury', 'Jean', '017-785 6480', 'jean@bloombury.com', 'Kuala Lumpur'),
    ('P010', 'Potato', 'Alex', '019-123 5211', 'alex@potato.com', 'Petaling Jaya');

INSERT INTO Bookstore_Manager (Manager_ID, Name, Contact_Number)
VALUES
    ('M01', 'Larry', '010-462 8740'),
    ('M02', 'Bonnie', '018-471 2190'),
    ('M03', 'Ashley', '018-822 1197'),
    ('M04', 'Phoebe', '016-521 1435'),
    ('M05', 'Richard', '010-933 0738'),
    ('M06', 'Richmond', '017-901 2977'),
    ('M07', 'Terrence', '017-592 4961');

INSERT INTO Publisher_Order (Publisher_Order_ID, Publisher_ID, Manager_ID, Order_Date)

```

100 %
 % Connected. (1/1) LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3\Victor... master 00:00:00 0 rows

```

Assignment - L_254FN3(Victor (55))
INSERT INTO Publisher_Order (Publisher_Order_ID, Publisher_ID, Manager_ID, Order_Date)
VALUES
('P0001', 'P001', 'M01', '31 July 2023'),
('P0002', 'P003', 'M02', '28 August 2023'),
('P0003', 'P004', 'M03', '18 May 2023'),
('P0004', 'P008', 'M02', '12 September 2023'),
('P0005', 'P003', 'M06', '21 September 2023'),
('P0006', 'P001', 'M03', '21 August 2023'),
('P0007', 'P009', 'M07', '19 August 2023'),
('P0008', 'P010', 'M06', '22 May 2023'),
('P0009', 'P001', 'M02', '23 August 2023'),
('P0010', 'P010', 'M07', '5 July 2023');

INSERT INTO Book (Book_ID, Name, Genre, Author, Price_MYR, Published_Date, Publisher_ID)
VALUES
('B001', 'The Widow in the Prison', 'Mystery', 'Barbosa', 189.15, '15 October 2021', 'P004'),
('B002', 'The Prophecy of the Nun', 'Mystery', 'Winston', 138.03, '24 July 2017', 'P002'),
('B003', 'Mockingjay', 'Action', 'Winston', 141.03, '17 May 2020', 'P003'),
('B004', 'Man on Fire', 'Action', 'Jerry', 171.91, '19 April 2018', 'P004'),
('B005', 'Interstellar', 'Sci-Fi', 'Ollie', 133.83, '11 May 2020', 'P005'),
('B006', 'Mars', 'Sci-Fi', 'Jerry', 152.90, '3 September 2019', 'P006'),
('B007', 'The Fault in our Stars', 'Romance', 'Barbosa', 76.33, '21 September 2018', 'P005'),
('B008', 'Beauty and the Beast', 'Romance', 'Walter', 86.59, '6 June 2020', 'P004'),
('B009', 'Divergent', 'Action', 'Jansen', 185.96, '9 May 2019', 'P009'),
('B010', 'Into the Unknown', 'Mystery', 'Winston', 98.14, '3 April 2018', 'P002');

INSERT INTO Publisher_Order_Details (Publisher_Order_Details_ID, Publisher_Order_ID, Book_ID, Quantity)
VALUES
('POD-001', 'P0008', 'B010', 100),
('POD-002', 'P0008', 'B007', 50),
('POD-003', 'P0005', 'B008', 50),
('POD-004', 'P0010', 'B005', 200),
('POD-005', 'P0004', 'B007', 150),
('POD-006', 'P0006', 'B004', 150),
('POD-007', 'P0005', 'B008', 50),
('POD-008', 'P0010', 'B007', 100),
('POD-009', 'P0005', 'B010', 100),
('POD-010', 'P0003', 'B002', 150);

```

100 %
 % Connected. (1/1) LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3(Victor... master 00:00:00 0 rows

```

Assignment - L_254FN3(Victor (55))
INSERT INTO Member (Member_ID, Name, Contact_Number, Address)
VALUES
('M001', 'Renee', '010-789 7163', 'Kuala Lumpur'),
('M002', 'Louis', '014-400 0550', 'Subang Jaya'),
('M003', 'Mary', '011-8888 8463', 'Petaling Jaya'),
('M004', 'Louie', '014-400 0865', 'Georgetown'),
('M005', 'Wayne', '018-472 2931', 'Seremban'),
('M006', 'Benjamin', '018-870 7475', 'Kuala Lumpur'),
('M007', 'Potts', '010-428 4082', 'Ipoh'),
('M008', 'Syarill', '019-886 3761', 'Johor Bahru'),
('M009', 'Tana', '014-400 2056', 'Seremban'),
('M010', 'Eddryll', '016-332 0105', 'Petaling Jaya');

INSERT INTO Member_Order (Member_Order_ID, Member_ID, Payment_Date, Delivery_EDA, Delivery_Address, Delivery_Status)
VALUES
('MO-001', 'M006', '1 November 2023', '4 November 2023', 'Johor Bahru', 'Pending'),
('MO-002', 'M001', '10 October 2023', '13 October 2023', 'Kuala Lumpur', 'Pending'),
('MO-003', 'M004', '31 October 2023', '3 November 2023', 'Georgetown', 'Pending'),
('MO-004', 'M002', '12 October 2023', '16 October 2023', 'Subang Jaya', 'Arrived'),
('MO-005', 'M008', '1 November 2023', '4 November 2023', 'Johor Bahru', 'Arrived'),
('MO-006', 'M001', '10 October 2023', '13 October 2023', 'Kuala Lumpur', 'Pending'),
('MO-007', 'M008', '1 November 2023', '4 November 2023', 'Johor Bahru', 'Pending'),
('MO-008', 'M001', '10 October 2023', '13 October 2023', 'Kuala Lumpur', 'Arrived'),
('MO-009', 'M002', '13 October 2023', '16 October 2023', 'Subang Jaya', 'Arrived'),
('MO-010', 'M004', '31 October 2023', '3 November 2023', 'Georgetown', 'Arrived');

INSERT INTO Shopping_Cart (Shopping_Cart_ID, Member_ID, Quantity)
VALUES
('SC001', 'M003', 1),
('SC002', 'M002', 3),
('SC003', 'M005', 3),
('SC004', 'M010', 1),
('SC005', 'M007', 1),
('SC006', 'M005', 2),
('SC007', 'M008', 1),
('SC008', 'M007', 1),
('SC009', 'M002', 1),
('SC010', 'M008', 2);

```

100 %
 % Connected. (1/1) LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3(Victor... master 00:00:00 0 rows

```

Assignment.sql - L_254FN3\Victor (55)
INSERT INTO Review (Review_ID, Book_ID, Member_ID, Ratings, Short_Comments)
VALUES
('R001', 'B006', 'M010', 7, 'Wonderful'),
('R002', 'B008', 'M010', 4, 'Nothing special'),
('R003', 'B003', 'M001', 4, 'Nothing special'),
('R004', 'B008', 'M006', 3, 'Special, but in a bad way'),
('R005', 'B004', 'M002', 1, 'Boring storyline'),
('R006', 'B008', 'M005', 2, 'Boring storyline'),
('R007', 'B001', 'M007', 8, 'Amazing'),
('R008', 'B001', 'M006', 7, 'Wonderful'),
('R009', 'B003', 'M006', 6, 'Overall is good'),
('R010', 'B006', 'M006', 6, 'Overall is good');

INSERT INTO Members_Orders_Detail (Mem_Order_Detail_ID, Book_ID, Member_Order_ID, Quantity)
VALUES
('MOD-001', 'B009', 'MO-008', 5),
('MOD-002', 'B007', 'MO-005', 4),
('MOD-003', 'B007', 'MO-002', 5),
('MOD-004', 'B004', 'MO-005', 3),
('MOD-005', 'B010', 'MO-010', 2),
('MOD-006', 'B006', 'MO-005', 4),
('MOD-007', 'B001', 'MO-002', 5),
('MOD-008', 'B003', 'MO-008', 1),
('MOD-009', 'B004', 'MO-004', 1),
('MOD-010', 'B007', 'MO-010', 2);

INSERT INTO Shopping_Cart_Detail (Shopping_Cart_Detail_ID, Book_ID, Shopping_Cart_ID, Quantity)
VALUES
('SCD-001', 'B008', 'SC006', 2),
('SCD-002', 'B009', 'SC006', 3),
('SCD-003', 'B002', 'SC002', 3),
('SCD-004', 'B002', 'SC003', 1),
('SCD-005', 'B007', 'SC001', 2),
('SCD-006', 'B001', 'SC003', 3),
('SCD-007', 'B008', 'SC004', 3),
('SCD-008', 'B005', 'SC010', 1),
('SCD-009', 'B006', 'SC008', 4),
('SCD-010', 'B001', 'SC002', 4);

```

100 %
 Connected. (1/1) LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3\Victor... master 00:00:00 0 rows

Assignment.sql - L_254FN3\Victor (55)

100 %

Results Messages

	Publisher_ID	Name	Liaison	Phone_Number	Email	Address
1	P001	Crayson	Kavi	012-958 7863	kavi@crayson.com	Kuala Lumpur
2	P002	Oxford	Darshan	016-582 1420	darshan@oxford.com	Petaling Jaya
3	P003	Wiley	Bryan	017-785 6479	bryan@wiley.com	Subang Jaya
4	P004	Scholastic	Wendy	019-123 5210	wendy@scholastic.com	Subang Jaya
5	P005	McGraw-Hill	Sabri	016-885 2231	sabri@mcgraw-hill.com	Johor Bahru
6	P006	Marvel	Rajesh	012-541 0232	rajesh@marvel.com	Petaling Jaya
7	P007	Pelangi	Nicole	012-958 7864	nicole@pelangi.com	Johor Bahru
8	P008	Sasbadi	Nikita	016-582 1421	nikita@sasbadi.com	Kuala Lumpur
9	P009	Bloombury	Jean	017-785 6480	jean@bloombury.com	Kuala Lumpur
10	P010	Potato	Alex	019-123 5211	alex@potato.com	Petaling Jaya

	Publisher_Order_ID	Publisher_ID	Manager_ID	Order_Date
1	PO001	P001	M01	2023-07-31
2	PO002	P003	M02	2023-08-28
3	PO003	P004	M03	2023-05-18
4	PO004	P008	M02	2023-09-12
5	PO005	P003	M06	2023-09-21
6	PO006	P001	M03	2023-08-21
7	PO007	P009	M07	2023-08-19
8	PO008	P010	M06	2023-05-22
9	PO009	P001	M02	2023-08-23
10	PO010	P010	M07	2023-07-05

	Manager_ID	Name	Contact_Number
1	M01	Larry	010-462 8740
2	M02	Bonnie	018-471 2190
3	M03	Ashley	018-822 1197
4	M04	Phoe...	016-521 1435
5	M05	Rich...	010-933 0738
6	M06	Rich...	017-901 2977
7	M07	Terre...	017-592 4961

Query executed successfully. LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3\Victor... APU_Online_Bookstore 00:00:00 27 rows

Assignment.sql - L_254FN3(Victor (55))

100 %

Results Messages

	Publisher_Order_Details_ID	Publisher_Order_ID	Book_ID	Quantity
1	POD-001	PO008	B010	100
2	POD-002	PO008	B007	50
3	POD-003	PO005	B008	50
4	POD-004	PO010	B005	200
5	POD-005	PO004	B007	150
6	POD-006	PO006	B004	150
7	POD-007	PO005	B008	50
8	POD-008	PO010	B007	100
9	POD-009	PO005	B010	100
10	POD-010	PO003	B002	150

	Book_ID	Name	Genre	Author	Price_MYR	Published_Date	Publisher_ID
1	B001	The Widow in the Prison	Mystery	Barbosa	189.15	2021-10-15	P004
2	B002	The Prophecy of the Nun	Mystery	Winston	138.03	2017-07-24	P002
3	B003	Mockingjay	Action	Winston	141.03	2020-05-17	P003
4	B004	Man on Fire	Action	Jerry	171.91	2018-04-19	P004
5	B005	Interstellar	Sci-Fi	Ollie	133.83	2020-05-11	P005
6	B006	Mars	Sci-Fi	Jerry	152.90	2019-09-03	P006
7	B007	The Fault in our Stars	Rom...	Barbosa	76.33	2019-09-21	P005
8	B008	Beauty and the Beast	Rom...	Walter	86.59	2020-06-06	P004
9	B009	Divergent	Action	Jansen	185.96	2019-05-09	P009
10	B010	Into the Unknown	Mystery	Winston	98.14	2018-04-03	P002

	Mem_Order_Detail_ID	Book_ID	Member_Order_ID	Quantity
1	MOD-002	B007	MO-005	4
2	MOD-001	B009	MO-008	5
3	MOD-003	B007	MO-002	5
4	MOD-004	B004	MO-005	3
5	MOD-005	B010	MO-010	2
6	MOD-006	B006	MO-005	4
7	MOD-007	B001	MO-002	5
8	MOD-008	B003	MO-008	1
9	MOD-009	B004	MO-004	1
10	MOD-010	B007	MO-010	2

Query executed successfully.

LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3(Victor... APU_Online_Bookstore 00:00:00 10 rows

Assignment.sql - L_254FN3(Victor (55))

100 %

Results Messages

	Member_Order_ID	Member_ID	Payment_Date	Delivery_EDA	Delivery_Address	Delivery_Status
1	MO-001	M008	2023-11-01	2023-11-04	Johor Bahru	Pending
2	MO-002	M001	2023-10-10	2023-10-13	Kuala Lumpur	Pending
3	MO-003	M004	2023-10-31	2023-11-03	Georgetown	Pending
4	MO-004	M002	2023-10-12	2023-10-16	Subang Jaya	Arrived
5	MO-005	M008	2023-11-01	2023-11-04	Johor Bahru	Arrived
6	MO-006	M001	2023-10-10	2023-10-13	Kuala Lumpur	Pending
7	MO-007	M008	2023-11-01	2023-11-04	Johor Bahru	Pending
8	MO-008	M001	2023-10-10	2023-10-13	Kuala Lumpur	Arrived
9	MO-009	M002	2023-10-13	2023-10-16	Subang Jaya	Arrived
10	MO-010	M004	2023-10-31	2023-11-03	Georgetown	Arrived

	Review_ID	Book_ID	Member_ID	Ratings	Short_Comments
1	R001	B006	M010	7	Wonderful
2	R002	B008	M010	4	Nothing special
3	R003	B003	M001	4	Nothing special
4	R004	B008	M006	3	Special, but in a bad way
5	R005	B004	M002	1	Boring storyline
6	R006	B008	M005	2	Boring storyline
7	R007	B001	M007	8	Amazing
8	R008	B001	M006	7	Wonderful
9	R009	B003	M006	6	Overall is good
10	R010	B006	M006	6	Overall is good

	Member_ID	Name	Contact_Number	Address
1	M001	Renee	010-789 7163	Kuala Lumpur
2	M002	Louis	014-400 0550	Subang Jaya
3	M003	Mary	011-8888 8463	Petaling Jaya
4	M004	Louie	014-400 0865	Georgetown
5	M005	Wayne	018-472 2931	Seremban
6	M006	Benj...	018-870 7475	Kuala Lumpur
7	M007	Potts	010-428 4082	Ipoh
8	M008	Syaril	019-886 3761	Johor Bahru
9	M009	Tana	014-400 2056	Seremban
10	M010	Eddyll	016-332 0105	Petaling Jaya

Query executed successfully.

LAPTOP-GL254FN3 (16.0 RTM) LAPTOP-GL254FN3(Victor... APU_Online_Bookstore 00:00:00 30 rows

100 %

Results Messages

	Shopping_Cart_ID	Member_ID	Quantity
1	SC001	M003	1
2	SC002	M002	3
3	SC003	M005	3
4	SC004	M010	1
5	SC005	M007	1
6	SC006	M005	2
7	SC007	M008	1
8	SC008	M007	1
9	SC009	M002	1
10	SC010	M008	2

	Shopping_Cart_Detail_ID	Book_ID	Shopping_Cart_ID	Quantity
1	SCD-001	B008	SC006	2
2	SCD-002	B009	SC006	3
3	SCD-003	B002	SC002	3
4	SCD-004	B002	SC003	1
5	SCD-005	B007	SC001	2
6	SCD-006	B001	SC003	3
7	SCD-007	B008	SC004	3
8	SCD-008	B005	SC010	1
9	SCD-009	B006	SC008	4
10	SCD-010	B001	SC002	4

Query executed successfully. | LAPTOP-GL254FN3 (16.0 RTM) | LAPTOP-GL254FN3|Victor... | APU_Online_Bookstore | 00:00:00 | 10 rows

SQL – Data Manipulation Language (DML)

Assignment.sql - L_254FN3|Victor (55)

```
-- Q2(b)(i) - Total number of feedback per book
SELECT Book.Book_ID, Book.Name, COUNT (Review.Ratings) AS Total_Feedback
FROM Book
INNER JOIN Review ON Book.Book_ID = Review.Book_ID
GROUP BY Book.Book_ID, Book.Name;
```

Results Messages

	Book_ID	Name	Total_Feedback
1	B001	The Widow in the Prison	2
2	B003	Mockingjay	2
3	B004	Man on Fire	1
4	B006	Mars	2
5	B008	Beauty and the Beast	3

```
-- Q2(b)(ii) - Total number of feedback per member
SELECT Member.Member_ID, Member.Name, COUNT (Review.Ratings) AS Total_Feedback
FROM Member
INNER JOIN Review ON Member.Member_ID = Review.Member_ID
GROUP BY Member.Member_ID, Member.Name;
```

Results Messages

	Member_ID	Name	Total_Feedback
1	M001	Renee	1
2	M002	Louis	1
3	M005	Wayne	1
4	M006	Benjamin	4
5	M007	Potts	1
6	M010	Eddyll	2

```
-- Q2(b)(iii) - Total number of book published by each publisher
SELECT Publisher.Publisher_ID, Publisher.Name, COUNT (Book.Book_ID) AS Total_Book
FROM Publisher
INNER JOIN Book ON Publisher.Publisher_ID = Book.Publisher_ID
GROUP BY Publisher.Publisher_ID, Publisher.Name;
```

Results Messages

	Publisher_ID	Name	Total_Book
1	P002	Oxford	2
2	P003	Wiley	1
3	P004	Scholastic	3
4	P005	McGraw-Hill	2
5	P006	Marvel	1
6	P009	Bloombury	1

```
-- Q2(b)(iv) - Total number of book for each genre
SELECT Genre, COUNT (Book_ID) AS Total_Book
FROM Book
GROUP BY Genre;
```

	Genre	Total_Book
1	Action	3
2	Mystery	3
3	Romance	2
4	Sci-Fi	2

```
-- Q2(b)(v) - List the books where quantity is more than the average quantity of all books
SELECT Book.Book_ID, Book.Name, Book.Genre, Book.Author, Book.Price_MYR, Book.Published_Date, Publisher_Order_Details.Quantity
FROM Book
JOIN Publisher_Order_Details
ON Book.Book_ID = Publisher_Order_Details.Book_ID
WHERE Publisher_Order_Details.Quantity > (SELECT AVG (Quantity) FROM Publisher_Order_Details);
```

	Book_ID	Name	Genre	Author	Price_MYR	Published_Date	Quantity
1	B005	Interstellar	Sci-Fi	Ollie	133.83	2020-05-11	200
2	B007	The Fault in our Stars	Romance	Barbosa	76.33	2018-09-21	150
3	B004	Man on Fire	Action	Jerry	171.91	2018-04-19	150
4	B002	The Prophecy of the Nun	Mystery	Winston	138.03	2017-07-24	150

```
-- Q2(b)(vi) - Total number of books ordered by store manager from various publishers
SELECT Publisher_Order.Publisher_ID, SUM (Publisher_Order_Details.Quantity) AS Total_Book
FROM Publisher_Order
INNER JOIN Publisher_Order_Details ON Publisher_Order.Publisher_Order_ID = Publisher_Order_Details.Publisher_Order_ID
GROUP BY Publisher_Order.Publisher_ID;
```

	Publisher_ID	Total_Book
1	P001	150
2	P003	200
3	P004	150
4	P008	150
5	P010	450

```
-- Q2(b)(vii) - Members who did not make any order
SELECT * FROM Member
WHERE NOT EXISTS
(SELECT Member_ID FROM Member_Order
WHERE Member_Order.Member_ID = Member.Member_ID);
```

	Member_ID	Name	Contact_Number	Address
1	M003	Mary	011-8888 8463	Petaling Jaya
2	M005	Wayne	018-472 2931	Seremban
3	M006	Benjamin	018-870 7475	Kuala Lumpur
4	M007	Potts	010-428 4082	Ipo
5	M009	Tana	014-400 2056	Seremban
6	M010	Eddyll	016-332 0105	Petaling Jaya

```
-- Q2(b)(viii) - Genres of the book which has the most number of quantity in stock
SELECT Book.Genre, Book_Quantities.Total_Quantity
FROM Book
JOIN
(SELECT Book_ID, SUM(Quantity) AS Total_Quantity
FROM Publisher_Order_Details
GROUP BY Book_ID) AS Book_Quantities
ON Book.Book_ID = Book_Quantities.Book_ID
WHERE Book_Quantities.Total_Quantity = (SELECT MAX(Total_Quantity)
FROM (SELECT Book_ID, SUM(Quantity) AS Total_Quantity
FROM Publisher_Order_Details
GROUP BY Book_ID) AS MaxQuantities);
```

	Genre	Total_Quantity
1	Romance	300

```
--Q2(b)(ix) - List of purchased books that have not been delivered to members
SELECT * FROM ((Members_Orders_Detail
INNER JOIN Member_Order ON Members_Orders_Detail.Member_Order_ID = Member_Order.Member_Order_ID)
INNER JOIN Book ON Book.Book_ID = Members_Orders_Detail.Book_ID)
WHERE Member_Order.Delivery_Status = 'Pending';
```

	Mem_Order_Detail_ID	Book_ID	Member_Order_ID	Quantity	Member_Order_ID	Member_ID	Payment_Date	Delivery_EDA	Delivery_Address	Delivery_Status	Book_ID	Name	Genre	Author	Price_MYR	Published_Date	Publisher_ID
1	MOD-003	8007	MO-002	5	MO-002	M001	2023-10-10	2023-10-13	Kuala Lumpur	Pending	8007	The Fault in our Stars	Romance	Barbosa	76.33	2018-09-21	P005
2	MOD-007	8001	MO-002	5	MO-002	M001	2023-10-10	2023-10-13	Kuala Lumpur	Pending	8001	The Widow in the Prison	Mystery	Barbosa	189.15	2021-10-15	P004

```
-- Q2(b)(x) - Members who made more than 2 orders
SELECT Member.Member_ID, Member.Name, COUNT(Member_Order.Member_Order_ID) AS [Num_Of_Order]
FROM Member JOIN Member_Order on Member.Member_ID = Member_Order.Member_ID
GROUP BY Member.Member_ID, Member.Name
HAVING COUNT(Member_Order.Member_Order_ID) > 2;
```

	Member_ID	Name	Num_Of_Order
1	M001	Renee	3
2	M008	Syail	3