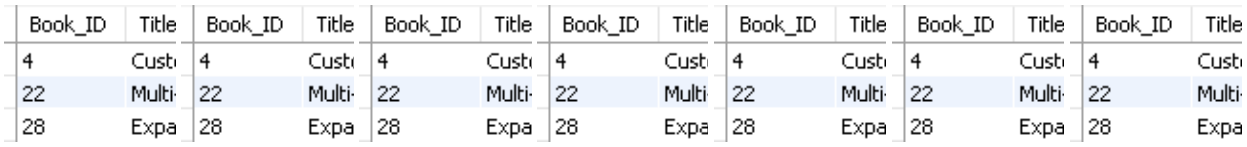
1) Retrieve all books in the "Fiction" genre:

```
select * from books

where Genre ="Fiction" ;
```

Output:



Book_ID	Title	Book_ID	Title	Book_ID	Title	Book_ID	Title	Book_ID	Title	Book_ID	Title	Book_ID	Title
4	Cust	4	Cust	4	Cust	4	Cust	4	Cust	4	Cust	4	Cust
22	Multi	22	Multi	22	Multi	22	Multi	22	Multi	22	Multi	22	Multi
28	Expa	28	Expa	28	Expa	28	Expa	28	Expa	28	Expa	28	Expa

2) Find books published after the year 1950:

```
select * from books

where Published_Year >1950;
```

Output:

Title	Author	Genre	Published_Year	Book_ID	Price	Stock
Customizable 24hour product	Christopher Andrews	Fiction	2020	4	43.52	8
Persevering reciprocal knowledge user	Mario Moore	Fantasy	1971	2	35.80	19
NULL	NULL	NULL	NULL	NULL	NULL	NULL

-- 3) List all customers from the Canada:

```
select * from customers

where City ="Canada";
```

Output:

Customer_ID	Name	Email	Phone	City	Country

-- 4) Show orders placed in November 2023:

```
select * from orders

where Order_Date between '11/01/2023' and '11/30/2023';
```

output:

Order_ID	Customer_ID	Book_ID	Order_Date	Quantity	Total_Amount
4	433	343	11/25/2023	7	301.21
19	496	60	11/17/2023	9	316.26
28	151	423	11/27/2024	8	205.04

-- 5) Retrieve the total stock of books available:

```
select count(Stock) as Total_Stock from books;
```

Output:

Total_Stock
500

-- 6) Find the details of the most expensive book:

select * from books

order by Price

limit 1;

Output:

Book_ID	Title	Author	Genre	Published_Year	Price	Stock
320	Ergonomic clear-thinking interface	Judith Gutierrez	Fantasy	1950	5.07	55
NULL	NULL	NULL	NULL	NULL	NULL	NULL

-- 7) Show all customers who ordered more than 1 quantity of a book:

select * from orders

where Quantity >1;

Output:

Order_ID	Customer_ID	Book_ID	Order_Date	Quantity	Total_Amount
1	84	169	5/26/2023	8	188.56
2	137	301	1/23/2023	10	216.6
3	216	261	5/27/2024	6	85.5

-- 8) Retrieve all orders where the total amount exceeds $20:

select * from orders

where Total_Amount >20;

Output:

Order_ID	Customer_ID	Book_ID	Order_Date	Quantity	Total_Amount
1	84	169	5/26/2023	8	188.56
2	137	301	1/23/2023	10	216.6
3	216	261	5/27/2024	6	85.5

-- 9) List all genres available in the Books table:

select distinct Genre from books;

Output:

Genre
Biography
Fantasy
Non-Fiction
Fiction
Romance

-- 10) Find the book with the lowest stock:

select * from books

order by Price;

Output:

Book_ID	Title	Author	Genre	Published_Year	Price	Stock
320	Ergonomic clear-thinking interface	Judith Gutierrez	Fantasy	1950	5.07	55
272	Intuitive 4thgeneration intranet	Daniel Gillespie	Mystery	1959	5.16	79
184	Enterprise-wide solution-oriented challenge	Megan Jones	Fantasy	1978	5.25	22

-- Advance Questions :

-- 1) Retrieve the total number of books sold for each genre:

select * from orders;

select b.Genre, sum(o.Quantity) as Revenue

from orders o

join books b on o.Order_ID = b.Book_ID

group by Genre;

Output:

Genre	Revenue
Biography	394
Fantasy	369
Non-Fiction	350

-- 2) Find the average price of books in the "Fantasy" genre:

select avg(Price) as Avg_Price from books

where Genre="Fantasy"

Output:

Avg_Price
25.981690

-- 3) List customers who have placed at least 2 orders:

```
select o.Customer_ID ,c.Name,sum(o.Order_ID) as Total_Order_Count
from orders o
join customers c on o.Customer_ID = c.Customer_ID
GROUP BY o.customer_id, c.name
HAVING COUNT(Order_id) >=2;
```

Output:

Customer_ID	Name	Total_Order_Count
2	Crystal Clements	829
6	Stephen Vasquez	335
8	Matthew Johnson	450

-- 4) Find the most frequently ordered book:

```
SELECT o.Book_id, b.title, COUNT(o.order_id) AS ORDER_COUNT
FROM orders o
JOIN books b ON o.book_id=b.book_id
GROUP BY o.book_id, b.title
ORDER BY ORDER_COUNT DESC LIMIT 1;
```

Output:

Book_id	title	ORDER_COUNT
88	Robust tangible hardware	4

-- 5) Show the top 3 most expensive books of 'Fantasy' Genre :

```
SELECT * FROM books
WHERE genre ='Fantasy'
ORDER BY price DESC LIMIT 3;
```

Output:

Book_ID	Title	Author	Genre	Published_Year	Price	Stock
240	Stand-alone content-based hub	Lisa Ellis	Fantasy	1957	49.90	41
462	Innovative 3rdgeneration database	Allison Contreras	Fantasy	1988	49.23	62
238	Optimized even-keeled analyzer	Sherri Griffith	Fantasy	1975	48.97	72
NULL	NULL	NULL	NULL	NULL	NULL	NULL

-- 6) Retrieve the total quantity of books sold by each author:

```
SELECT b.author, SUM(o.quantity) AS Total_Books_Sold
FROM orders o
JOIN books b ON o.book_id=b.book_id
GROUP BY b.Author;
```

Output:

author	Total_Books_Sold
Margaret Moore	8
John Davidson	13
Christopher Fuentes	6
Marissa Smith	16
Christopher Dixon	15

-- 7) List the cities where customers who spent over $30 are located:

```
SELECT DISTINCT c.city, total_amount
FROM orders o
JOIN customers c ON o.customer_id=c.customer_id
WHERE o.total_amount > 30;
```

Output:

city	total_amount
East Derekberg	298.06
Hamiltonstad	148.02
Kirstenborough	95.85
Kirstenborough	44.61

-- 8) Find the customer who spent the most on orders:

```
SELECT c.customer_id, c.name, SUM(o.total_amount) AS Total_Spent
FROM orders o
JOIN customers c ON o.customer_id=c.customer_id
GROUP BY c.customer_id, c.name
```

ORDER BY Total_spent Desc LIMIT 1;

Output:

customer_id	name	Total_Spent
457	Kim Turner	1398.8999999999999

-- 9) Calculate the stock remaining after fulfilling all orders:

SELECT b.book_id, b.title, b.stock, COALESCE(SUM(o.quantity),0) AS Order_quantity,

b.stock- COALESCE(SUM(o.quantity),0) AS Remaining_Quantity

FROM books b

LEFT JOIN orders o ON b.book_id=o.book_id

GROUP BY b.book_id ORDER BY b.book_id;

Output:

book_id	title	stock	Order_quantity	Remaining_Quantity
1	Configurable modular throughput	100	3	97
2	Persevering reciprocal knowledge user	19	0	19
3	Streamlined coherent initiative	27	5	22
4	Customizable 24hour product	8	0	8