SQL Project : Online Book Store

Basic Questions :

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

Answer:-

```
SELECT * FROM Books

WHERE Genre='Fiction';
```

-- 2) Find books published after the year 1950:

Answer:-

```
SELECT * FROM Books

WHERE Published_year>1950;
```

-- 3) List all customers from the Canada:

Answer:-

```
SELECT * FROM Customers

WHERE country='Canada';
```

-- 4) Show orders placed in November 2023:

Answer:-

```
SELECT * FROM Orders

WHERE order_date BETWEEN '2023-11-01' AND '2023-11-30';
```

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

Answer:-

```
SELECT SUM(stock) AS Total_Stock

From Books;
```

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

Answer:-

```
SELECT * FROM Books

ORDER BY Price DESC

LIMIT 1;
```

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

Answer:-

```
SELECT * FROM Orders
WHERE quantity>1;
```

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

Answer:-

```
SELECT * FROM Orders
WHERE total_amount>20;
```

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

Answer:-

```
SELECT DISTINCT genre FROM Books;
```

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

Answer:-

```
SELECT * FROM Books
ORDER BY stock
LIMIT 1;
```

-- 11) Calculate the total revenue generated from all orders:

Answer:-

```
SELECT SUM(total_amount) As Revenue
FROM Orders;
```

Basic Questions :

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

Answer:-

```
SELECT b.Genre, SUM(o.Quantity) AS Total_Books_sold
FROM Orders o
JOIN Books b ON o.book_id = b.book_id
GROUP BY b.Genre;
```

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

Answer:-

```
SELECT AVG(price) AS Average_Price

FROM Books

WHERE Genre = 'Fantasy';
```

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

Answer:-

```
SELECT o.customer_id, c.name, COUNT(o.Order_id) AS 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;
```

-- 4) Find the most frequently ordered book:

Answer:-

```
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;
```

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

Answer:-

```
SELECT * FROM books

WHERE genre ='Fantasy'

ORDER BY price DESC LIMIT 3;
```

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

Answer:-

```
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;
```

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

Answer:-

```
SELECT DISTINCT c.city, total_amount

FROM orders o

JOIN customers c ON o.customer_id=c.customer_id

WHERE o.total_amount > 30;
```

Answer:-

-- 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;
```

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

Answer:-

```
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;
```