SQL PROJECT – ONLINE BOOK STORE

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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
WHERE price IN (SELECT MAX(price) FROM Books);
```

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;
```

12. Retrieve the total number of books sold for each genre

Answer:

```
SELECT b.genre, SUM(o.quantity) AS Total_Books_Sold
FROM Books b
JOIN
Orders o ON (b.book_id=o.book_id)
GROUP BY b.genre;
```

13. Find the average price of books in the "Fantasy" genre

Answer:

```
SELECT AVG(price) AS Avg_Price FROM Books
WHERE genre='Fantasy';
```

14. List customers who have placed at least 2 orders

Answer:

```
SELECT customer_id, COUNT(order_id) AS Total_Orders
```

```
FROM Orders
GROUP BY customer_id
HAVING COUNT(order_id)>=2;
```

15. Find the most frequently ordered book

Answer:

```
SELECT book_id, COUNT(order_id) AS Frequently_ordered
FROM Orders
GROUP BY book_id
ORDER BY COUNT(order_id) DESC
LIMIT 1;
```

16. Show the top 3 most expensive books of 'Fantasy' Genre

Answer:

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

17. Retrieve the total quantity of books sold by each author

Answer:

```
SELECT b.author, SUM(o.quantity) AS Total_quantity_of_books
FROM Books b
JOIN Orders o ON (b.book_id=o.book_id)
GROUP BY b.author;
```

18. List the cities where customers who spent over $30 are located

Answer:

```
SELECT DISTINCT c.city, o.total_amount, c.name
FROM Customers c
JOIN
Orders o ON (c.customer_id=o.customer_id)
WHERE o.total_amount>30;
```

19. Find the customer who spent the most on orders

Answer:

```
SELECT c.customer_id, c.name, SUM(o.total_amount) AS most_spent
FROM Customers c
JOIN Orders o ON (c.customer_id=o.customer_id)
GROUP BY c.customer_id, c.name
ORDER BY most_spent DESC
LIMIT 1;
```

20. 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_stock
FROM Books b
LEFT JOIN Orders o ON (b.book_id=o.book_id)
GROUP BY b.book_id;
```