

```
CREATE DATABASE OnlineBookstore;
USE OnlineBookstore;
```

```
CREATE TABLE Books (
    Book_ID INT PRIMARY KEY,
    Title VARCHAR(100),
    Author VARCHAR(100),
    Genre VARCHAR(50),
    Published_Year INT,
    Price NUMERIC(10,2),
    Stock int
);
```

```
CREATE TABLE Customers (
    Customers_ID INT PRIMARY KEY,
    Name VARCHAR(100),
    Email VARCHAR(15),
    Phone VARCHAR(15),
    City VARCHAR(50),
    Country VARCHAR(150)
);
```

```
CREATE TABLE Orders (
    Orders_ID INT PRIMARY KEY,
    Customer_ID INT REFERENCES Customers(Customer_ID),
    Book_ID INT REFERENCES Books(Book_ID),
    Order_Date DATE,
    Quantity INT,
    Total_Amount NUMERIC(10,2)
);
```

```
SELECT * FROM Books;
SELECT * FROM Customers;
SELECT * FROM Orders;
```

```
-- 1) Retrive all books in the "Fiction" genre:
SELECT * FROM Books
WHERE Genre='Fiction';
```

```
-- 2) Find the books published after the year 1950:
SELECT * FROM Books
WHERE Published_year>1950;
```

```

-- 3) List all customers from the canada:
SELECT * FROM Customers
WHERE country='Canada';

-- 4)show orders placed in november 2023:
SELECT * FROM Orders
WHERE Order_date BETWEEN '2023-11-01' AND '2023-11-30'

-- 5) Find the details of the most expensive book:
SELECT * FROM Books ORDER BY Price DESC LIMIT 1;

-- 6) show all customers who ordered more than 1 quantity of a
book:
SELECT * FROM Orders
WHERE quantity >1;

-- 7) retrieve all orders where the total amount exceeds $20:
SELECT * FROM Orders
WHERE total_amount >20;

-- 8) list all the genres available in the books table:
SELECT DISTINCT genre FROM Books;

-- 9) find the book with the lowest stock:
SELECT * FROM Books
ORDER BY Stock
LIMIT 1;

-- 10) Calculate the total revenue generated from all orders:
SELECT sum(total_amount) AS Revenue FROM orders;

#Advanced question
-- 1) retrieve the total number of book sold for each genre:
SELECT * FROM Orders;
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:

```
SELECT avg(Price)AS Average_Price  
FROM Books  
WHERE Genre='fantasy';
```

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

```
SELECT Customer_id, count(Orders_id)AS ORDER_COUNT  
FROM Orders  
GROUP BY Customer_id  
HAVING count(Orders_id)>=2;
```

-- 4) show the top 3 most expensive book of 'fantasy' genre:

```
SELECT * FROM Books  
WHERE genre='fantasy'  
ORDER BY Price DESC LIMIT 3;
```

-- 5)Retrieve the total quanSELECT DISTINCT C.City, total_amount

```
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:

```
SELECT DISTINCT C.City,total_amount  
FROM Orders O  
JOIN Customers C on C.Customers_ID=Customers_ID  
WHERE O.total_amount>30;
```

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

```
SELECT C.Customers_ID , c.name ,sum(o.total_amount)AS Total_spent  
FROM orders o  
JOIN Customers c on c.Customers_ID=C.Customers_ID  
GROUP BY C.Customers_ID,C.name  
ORDER BY Total_spent DESC LIMIT 1;
```