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 INT,

Stock INT

);

create table customers(

Customer\_ID int primary key,

Name varchar(50),

Email varchar(50),

Phone varchar(20),

City varchar(50),

Country varchar(50)

);

create table orders(

Order\_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 int

);

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

select \* from books

where genre = "fiction"

-- 2) Find 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 2023 November:

select \* from orders

where order\_date between '2023-11-01' and '2023-11-30'

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

select count(stock) from books

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

select \* from books

order by price desc

limit 1

or we can use sub query

select \* from books

where price = (select max(price) from books)

limit 1

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

select \* from orders

where quantity > 1

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

select \* from orders

where total\_amount > 20

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

select distinct(genre) from books

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

select \* from books

order by stock

limit 1

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

select sum(total\_amount) as revenue from orders

Advance Query

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

select sum(quantity),book.genre from orders

join books on

orders.book\_id = books.book\_id

group by genre

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

select avg(price) from books

where genre = "fantasy"

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

select name,count(order\_id) as total\_order,orders.customer\_id from orders

join customers on

orders.customer\_id = customers.customer\_id

group by customer\_id,name

having count(order\_id) >= 2

-- 4) Find the most frequently ordered book:

select books.title,orders.book\_id,count(order\_id) as total\_order

from orders join

books on

orders.book\_id = books.book\_id

group by book\_id,title

order by total\_order desc

limit 1;

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

select \* from books

where genre = "fantasy"

order by price desc

limit 3;

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

select books.author,sum(quantity) as total\_quantity from orders

join books on

orders.book\_id = books.book\_id

group by author;

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

select distinct city,total\_amount from orders

join customers on

orders.customer\_id = customers.customer\_id

where total\_amount > 30

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

select customers.name,sum(total\_amount) from orders join customers on

orders.customer\_id = customers.customer\_id

group by customers.name

order by sum(total\_amount) desc

limit 1

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

select books.book\_id,title,stock,coalesce(sum(quantity),0) as order\_quantity,stock-coalesce(sum(quantity),0) as remaining\_stock

from

books left join orders on

books.book\_id = orders.book\_id

group by book\_id