

A Guided Project Report on
SQL FOR BEGINNERS: QUERYING DATA
Project Scenario: Building a simple online bookstore database



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Sample SQL Source Code:

Creating Tables:

sql

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```
CREATE TABLE Books (  
    ISBN VARCHAR(20) PRIMARY KEY,  
    Title VARCHAR(100),  
    Author VARCHAR(50),  
    Price DECIMAL(10,2)  
);
```

```
CREATE TABLE Customers (  
    CustomerID INT PRIMARY KEY,  
    Name VARCHAR(50),  
    Email VARCHAR(100),  
    Address VARCHAR(200)  
);
```

```
CREATE TABLE Orders (  
    OrderID INT PRIMARY KEY,  
    CustomerID INT,  
    OrderDate DATE,  
    TotalAmount DECIMAL(10,2),  
    FOREIGN KEY (CustomerID) REFERENCES Customers(CustomerID)  
);
```

```
CREATE TABLE Order_Details (  
    OrderID INT,  
    ISBN VARCHAR(20),  
    Quantity INT,  
    Price DECIMAL(10,2),
```

```
PRIMARY KEY (OrderID, ISBN),  
FOREIGN KEY (OrderID) REFERENCES Orders(OrderID),  
FOREIGN KEY (ISBN) REFERENCES Books(ISBN)
```

```
);
```

Inserting Sample Data:

sql

Copy code

```
INSERT INTO Books (ISBN, Title, Author, Price) VALUES  
(9780345339683, 'The Hobbit', 'J.R.R. Tolkien', 9.99),  
(9780439554930, 'Harry Potter and the Sorcerer's Stone', 'J.K. Rowling', 12.99);
```

```
INSERT INTO Customers (CustomerID, Name, Email, Address) VALUES  
(1, 'John Doe', 'john@example.com', '123 Main St, Anytown, USA'),  
(2, 'Jane Smith', 'jane@example.com', '456 Elm St, Othertown, USA');
```

```
INSERT INTO Orders (OrderID, CustomerID, OrderDate, TotalAmount) VALUES  
(1001, 1, '2024-04-25', 22.98),  
(1002, 2, '2024-04-26', 12.99);
```

```
INSERT INTO Order_Details (OrderID, ISBN, Quantity, Price) VALUES  
(1001, '9780345339683', 1, 9.99),  
(1001, '9780439554930', 1, 12.99),  
(1002, '9780439554930', 1, 12.99);
```

Querying Data:

sql

Copy code

```
-- Retrieve all books
```

```
SELECT * FROM Books;
```

```
-- Retrieve orders with customer information
```

```
SELECT Orders.OrderID, Customers.Name, Orders.OrderDate, Orders.TotalAmount
```

FROM Orders

JOIN Customers ON Orders.CustomerID = Customers.CustomerID;

-- Calculate total sales for each book

SELECT b.Title, SUM(od.Quantity) AS TotalQuantity, SUM(od.Price * od.Quantity) AS
TotalSales

FROM Books b

JOIN Order_Details od ON b.ISBN = od.ISBN