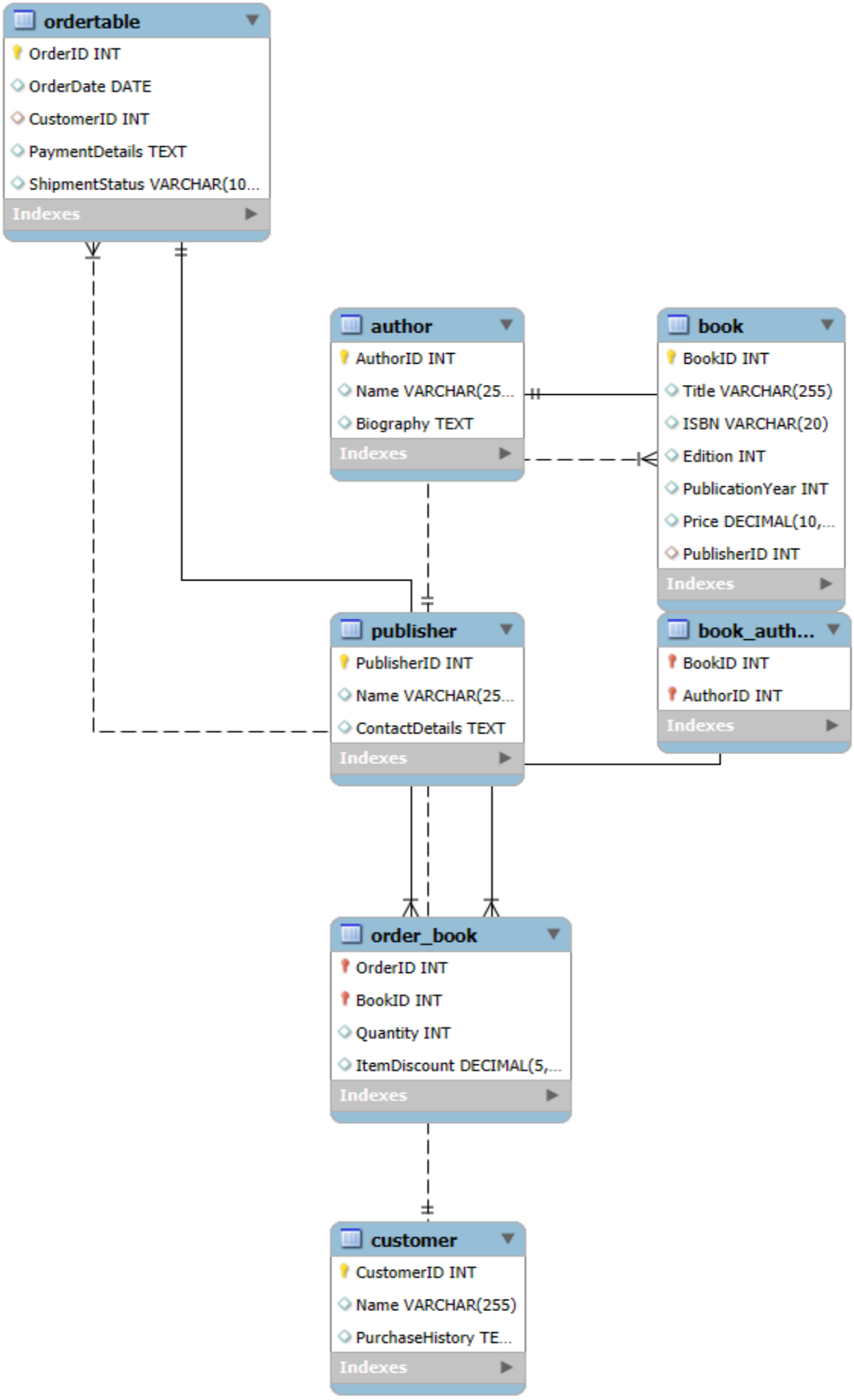
Problem 3: Online Book Publishing and Sales Platform

Design an Entity-Relationship schema for an online book publishing and sales platform. The database should contain information about books with title, ISBN, edition, publication year, publisher, genres, and price. Authors have ID, name, biography, and are associated with multiple books.
Customers have customer ID, name, purchase history, shipping addresses, and wishlist items. Orders have order number, order date, customer placing the order, list of books ordered with quantity and per item discounts, payment details, and shipment status.

Publishers have names, contact details, and the books they publish. Books can be written by multiple authors and can belong to multiple genres. Customers can place multiple orders, have multiple shipping addresses, and maintain a wishlist of books.
Each edition of a book is published by exactly one publisher, and books can have multiple editions sold in different years. Orders can contain multiple books with different quantities and item-specific discounts. Assume scenarios such as co-authored books, special editions, and pre-order capabilities.


ordertable
OrderID INT
OrderDate DATE
CustomerID INT
PaymentDetails TEXT
ShipmentStatus VARCHAR(10...
Indexes
author
AuthorID INT
Name VARCHAR(25...
Biography TEXT
Indexes
book
BookID INT
Title VARCHAR(255)
ISBN VARCHAR(20)
Edition INT
PublicationYear INT
Price DECIMAL(10,...
PublisherID INT
Indexes
publisher
PublisherID INT
Name VARCHAR(25...
ContactDetails TEXT
Indexes
book_auth...
BookID INT
AuthorID INT
Indexes
order_book
OrderID INT
BookID INT
Quantity INT
ItemDiscount DECIMAL(5,...
Indexes
customer
CustomerID INT
Name VARCHAR(255)
PurchaseHistory TE...
Indexes

1.**Publisher Table**

```
CREATE TABLE Publisher (
    PublisherID INT PRIMARY KEY,
    Name VARCHAR(255),
    ContactDetails TEXT
);
```

2. Book Table

```
CREATE TABLE Book (
    BookID INT PRIMARY KEY,
    Title VARCHAR(255),
    ISBN VARCHAR(20),
    Edition INT,
    PublicationYear INT,
    Price DECIMAL(10, 2),
    PublisherID INT,
    FOREIGN KEY (PublisherID) REFERENCES
Publisher(PublisherID)
);
```

3. Author Table

```
CREATE TABLE Author (
    AuthorID INT PRIMARY KEY,
    Name VARCHAR(255),
    Biography TEXT
);
```

4. Book_Author Table

```
CREATE TABLE Book_Author (
    BookID INT,
    AuthorID INT,
    PRIMARY KEY (BookID, AuthorID),
    FOREIGN KEY (BookID) REFERENCES Book(BookID),
    FOREIGN KEY (AuthorID) REFERENCES Author(AuthorID)
);
```

5. Customer Table

```
CREATE TABLE Customer (
    CustomerID INT PRIMARY KEY,
    Name VARCHAR(255),
    PurchaseHistory TEXT
);
```

6. OrderTable

```
CREATE TABLE OrderTable (
    OrderID INT PRIMARY KEY,
    OrderDate DATE,
    CustomerID INT,
    PaymentDetails TEXT,
    ShipmentStatus VARCHAR(100),
    FOREIGN KEY (CustomerID) REFERENCES
Customer(CustomerID)
);
```

7. Order_Book Table

```
CREATE TABLE Order_Book (
    OrderID INT,
    BookID INT,
    Quantity INT,
    ItemDiscount DECIMAL(5, 2),
    PRIMARY KEY (OrderID, BookID),
    FOREIGN KEY (OrderID) REFERENCES
OrderTable(OrderID),
    FOREIGN KEY (BookID) REFERENCES Book(BookID)
);
```