**High Level Summary**

Independent entities are users, books, authors, genres and suppliers. Users can register. Any book can be added to the database, the availability will be sorted through supplier contracts. New contracts can be made with suppliers, but each contract is to sign one book from one supplier. Users can browse by reading from the results, adding items to the cart can be stored in the session, once it’s confirmed it will create an order. Order’s status and the existence of an invoice will trigger a delivery. For now in this design we get outsource help for payment and delivery, but trying to record as much as information.

**Conceptual and Logical Model**

**Entities and attributes**

* Users | id(PK), created\_at, username, email, phone, password\_hash, role
* Customers | id(FK), name, last\_name
* Addresses | id(PK), name, address1, address2, city, state, zip, country, customer\_id(FK)
* Deliveries | id(PK), order\_id(FK), address\_id(FK), created\_at, status, carrier\_name, tracking\_number, delivery\_cost, details
* Orders | id(PK), created\_at, status, order\_total, customer\_id(FK)
* Invoices | id(FK), created\_at, payment\_status, payment\_method, transaction\_id, paid\_at, details
* Books | id(PK), title, price\_to\_customer
* Authors | id(PK), name, detail
* Genres | id(PK), name, detail
* Suppliers | id(PK), name, contact\_information, detail
* Supplier\_book\_contracts | id(PK), name, start\_date, end\_date, price\_from\_supplier, details, book\_id(FK), supplier\_id(FK)
* Books\_and\_genres | (book\_id, genre\_id)(PK), book\_id(FK), genre\_id(FK)
* Books\_and\_authors | (book\_id, author\_id)(PK), book\_id(FK), author\_id(FK)
* Orders\_and\_books | (order\_id, book\_id)(PK), order\_id(FK), book\_id(FK), quantity

**Relationships**

* One to one
  + users-customers
  + invoices-orders
* One to many
  + customers-orders
  + customers-addresses
  + books-supplier\_book\_contracts
  + suppliers-supplier\_book\_contracts
  + orders-deliveries, addresses-deliveries
* Many to many
  + books-suppliers,
  + books-genres, books-authors, orders-books

[**GitHub/Safakan/CCTB\_repo\_safak\_atakan\_celik/ISM 103/BookCafe**](https://github.com/safakan/CCTB_repo_safak_atakan_celik/tree/main/ISM%20103/BookCafe)