Online Book Shopping Trolley

- **Plan to do it:**
  Admin will give a view customer of the book. Interested customer will give them their necessary information. In this case, customers can order more than one book. The customer will be able to see his information and Total Prize. Admin can show customer information and a list of books they have ordered and can change if desired.

- **Database Schema:**
  Global Schema:
    - ✓ Book (Book_id, Title, Author, Category, Prize, Publication date)
    - ✓ Customer (Customer_id, Name, Address, Email, Phone Number, Book_id, Payment, Total)
    - ✓ Admin(Admin_id, A_Name, A_Email, A_Phone Number)

  Fragmentation Schema:

    - ✓ $Book_1 = SL_{category=Poetry}$ Book
    - ✓ $Book_2 = SL_{category=Novel}$ Book
    - ✓ $Book_3 = SL_{category=Drama}$ Book
    - ✓ $Book_4 = SL_{category=Fairytale}$ Book
    - ✓ $Book_5 = SL_{category=Science\ Fiction}$ Book

  Finally,

    - ✓ $Customer_1 = Customer\ SJ_{Book\_id=Book\_id}\ Book_1$
    - ✓ $Customer_2 = Customer\ SJ_{Book\_id=Book\_id}\ Book_2$
    - ✓ $Customer_3 = Customer\ SJ_{Book\_id=Book\_id}\ Book_3$
    - ✓ $Customer_4 = Customer\ SJ_{Book\_id=Book\_id}\ Book_4$
    - ✓ $Customer_5 = Customer\ SJ_{Book\_id=Book\_id}\ Book_5$

  Allocation Schema:

    - ✓ $Book_1, Book_2, Book_3, Customer_1, Customer_2, Customer_3$ - at site 1
    - ✓ $Book_4, Book_5, Customer_4, Customer_5$ - at site 2

- **Why it needs a distributed database:**
  The components of the distributed architecture are completely independent of one another, which means that every site can be maintained independently. So, one customer will not be seen other customer information. A replicated environment can be implemented with updateable snapshots that would allow customers should not update something as sensitive data in the book table without having any access to the data for Admin. In a distributed environment adding more data, increasing database sizes, or increasing database sizes is much easier and servers and sites can easily share data using communication network.