# Business Rules and User Requirements

1. Every customer must have a unique ID.
2. Customers can make multiple bookings, but each booking belongs to one and only one customer.
3. Each service provider (hotel, flight, car rental, etc.) is identified by a unique ID.
4. Each booking is associated with a particular service and can only belong to one service.
5. Service providers offer multiple services, but each service belongs to one and only one service provider.
6. Each booking must have a unique booking ID.
7. Customers provide feedback on their bookings.
8. Feedback is tied to a specific booking.

**Entity Relationship Diagram (ERD)**

Entities and Attributes:

1. Customer
   * CustomerID (PK)
   * FirstName
   * LastName
   * Email
   * PhoneNumber
2. Booking
   * BookingID (PK)
   * CustomerID (FK)
   * ServiceID (FK)
   * BookingDate
   * AmountPaid
3. Service
   * ServiceID (PK)
   * ServiceProviderID (FK)
   * ServiceType (Flight, Hotel, Car, etc.)
   * ServiceDescription
4. ServiceProvider
   * ServiceProviderID (PK)
   * ServiceProviderName
   * ServiceType
   * CommissionRate
5. Feedback
   * FeedbackID (PK)
   * BookingID (FK)
   * Rating (1-5)
   * Comments

**Relationships**

1. Customer to Booking:

One to Many (A customer can make multiple bookings, but each booking is associated with one customer)

1. Booking to Service: Many to One (A booking can only be associated with one service, but a service can have many bookings)
2. Service to ServiceProvider: Many to One (A service is provided by one provider, but a provider can offer multiple services)
3. Booking to Feedback: One to Many (Each booking can have none or multiple feedback)

**Cardinalities**

1. Customer to Booking: 1:N
2. Booking to Service: N:1
3. Service to ServiceProvider: N:1
4. Booking to Feedback: 1:N

**Datatypes**

* IDs - Integer
* Names - Varchar
* Email - Varchar
* PhoneNumber - Varchar
* BookingDate - Date
* AmountPaid - Decimal
* ServiceType - Varchar
* ServiceDescription - Varchar
* CommissionRate - Decimal
* Rating - Integer
* Comments - Varchar