Entities

Users: Represents all the users of the website services. A user can either be a customer or a service provider (specialization). It will have login credentials as attributes.

Customers: It I a specialized entity set of user. It will contain name, address and contact information of the customer.

Service Provider: It is a specialized entity set of user. It will contain the firm name, address, contact information, verification status.

In our system we have considered the following services which can be provided by service providers.

- **Venue Provider:** It is a weak entity set representing all possible venue in our database.
- **Band Provider:** It is a weak entity set representing all possible bands in our database.
- **Decorating Provider:** It is a weak entity set representing all possible decorators in our database.
- **DJ Provider:** It is a weak entity set representing all possible DJ providers in our database.
- **Lighting Provider:** It is a weak entity set representing all possible lighting providers in our database.
- **Catering Provider:** It is a weak entity set representing all possible caterers in our database.
- **Bar Provider:** It is a weak entity set representing all possible bar providers in our database.
- **Food Provider:** It is a weak entity set representing all possible food providers in our database.

We have assumed that a service provider can provide many levels of services such as basic, deluxe, premium, executive etc. We call these levels as "suites".

- **Venue Suite:** It represents various levels of venue arrangements provided by a particular banquet hall.
- **Band Suite:** It represents various types of band compositions e.g. number of people in a band.
- **Decorating Suite:** It represents types of packages offered by the decoration provider.
- **DJ Suite:** It represents the suites offered by the DJ provider.
- **Lighting Suite:** It represents the levels according to the types of lights used.
- **Catering Suite:** It depends on the number of people to be served.
- **Bar Suite:** It indicated the drinks available in different packages.
- **Food Suite:** It contains the different sets of cuisines provided.

Grand Booking: This entity set correspond to the booking regarding to a particular event by a customer. It will have attributes booking ID, booking name, cost, isPaid(indicates whether advance payment is made or not) and period of booking.

Relations

Following relations relates "service provider" entity with the corresponding services.

- **Venue_Service_Provider:** This relation relates a particular service provider with venue provider entity.
- **Band_Service_Provider:** This relation relates service provider with Band provider entity.
- **Decorating_Service_Provider:** This relation relates a particular service provider with Decoration provider entity.
- **Bar_Service_Provider:** This relation relates service provider with Bar provider entity.
- **DJ_Service_Provider:** This relation relates service provider with DJ provider entity.
- **Catering_Service_Provide:** This relation relates service provider with Catering provider entity.
- **Food_Service_Provider:** This relation relates service provider with Food provider entity.
- **Lighting_Service_Provider:** This relation relates service provider with Lighting entity.

Following relations relate services with the respective suites.

- **Venue_Provider_Suite:** This relation relates venue provider with Suites provided by that provider.
- **Band_Provider_Suite:** This relation relates band provider with Suites provided by that provider.
- **Decorating_Provider_Suite:** This relation relates Decoration provider with Suites provided by that provider.
- **Bar_Provider_Suite:** This relation relates Bar provider with Suites provided by that provider.
- **DJ_Provider_Suite:** This relation relates DJ provider with Suites provided by that provider.
- **Catering_Provider_Suite**: This relation relates Catering provider with Suites provided by that provider.
- **Food_Provider_Suite:** This relation relates Food provider with Suites provided by that provider.
- **Lighting_Provider_Suite**: This relation relates Lighting provider with Suites provided by that provider.

Booked: This relation relates a customer with the grand booking entity.

sFollowing relations relate grand booking entity with the service's suites. Each of them has descriptive attributes namely Instructions, Rating, Review, Cancelled and RefundAmount.

- **Venue_Booking**: This relation relates Booking entity with the suite of venue selected.
- **Band_Booking:** This relation relates Booking entity with the suite of band selected.
- **Decorating_Booking:** This relation relates Booking entity with the suite of decoration selected.
- **Bar_Booking:** This relation relates Booking entity with the suite of bar selected.
- **DJ_Booking:** This relation relates Booking entity with the suite of DJ selected.
- **Catering_Booking:** This relation relates Booking entity with the suite of catering selected.
- **Food_Booking:** This relation relates Booking entity with the suite of food selected.

- **Lighting_Booking:** This relation relates Booking entity with the suite of lighting selected.

Constraints

A user can either be a customer or a service provider.

A particular service provider can provide more than one service and at least one.

Each service can have multiple suites and at least one suite.

Grand booking entity can consist of many **sub bookings** of different utilities e.g. it can have two food bookings and one decorator bookings etc.

Each sub booking(denoted by *_Booking relations) has exactly one booking id and one utility suite.