



LIST OF ASSUMPTIONS

1. The statement “Every flight departs from an airport and arrives at an airport.”
 - a. This mentions about the total participation of flights for arrival and depart relationship with an airport but does not clearly specify if a particular airport supports arrival as well as departure facility.
There can be possibility where an airport can allow only either of those (one such possibility can be a flight arrives but always goes empty to some other airport and then takes off for a legitimate journey).
 - b. Hence, we assumed an ideal scenario where each flight arrives as well as departs from the same of the airport.
 - c. This design impacted our decision in a way that led to total participation of ‘Airport’ entity with ‘Arrive’ and ‘Depart’ relation with ‘Flight’ entity.
2. The statement “The owners will add their properties to our system,”
 - a. The unclear aspect of this statement was whether an owner needs to always own at least one property in order to maintain his owner status.
Can he/she be an owner by not owning a property for a certain time period?
 - b. We decided that owner must always own a property at any given point of time to symbolise that that client is an ‘owner’. He may always further add more properties but during data creation he must own property/properties.
 - c. This decision impacted our design in such a way that led to total participation of ‘Owner’ entity on a relationship ‘Add’ with entity ‘Property’.
3. The statements “If a customer wants to cancel their flight booking at **any time before** their flight” and “At **any time before** their stay begins, customers may also cancel their property booking(s).”
 - a. There is ambiguity that whether a customer will always cancel before the start date (or arrival time in case of flights). There can be a possibility if a customer wants to cancel after the start date to vacate the seats/occupancy despite losing all the money.
 - b. We decided to resolve this conflict by adding attributes ‘Time of Cancel’ and ‘Date of Cancel’ for Flights and ‘Date of Cancel’ for Properties booking.
 - c. This decision has impacted our design in such a way that there will always be an entry in the database relating to the time/date of cancellation.
Therefore, system can always check with the cancellation date/time it is before the start date in case of property, and before departure date and time in case of flights.
If it is true, 'Cancellation fee will be charged to the customer and amount will refunded. Both are taken as derived attributes in ‘Cancel’ relationship.
If it is false, no amount will be refunded and, in case of ‘Property’, remaining occupancy will be restored and updated.
Hence, to calculate remaining occupancy for a property we added a derived attribute to the ‘Property’ entity named as ‘Remaining capacity to host guests’.