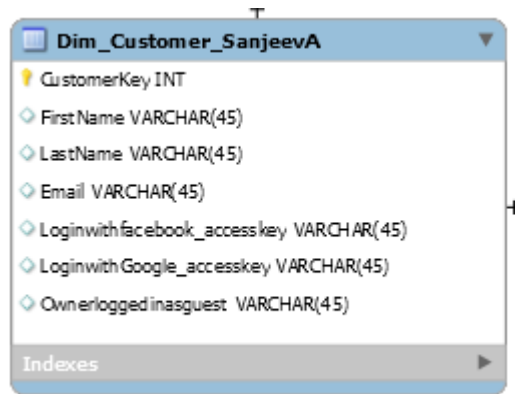


Business Requirements covered

- A user can sign up via Facebook, Google or via email and create an account

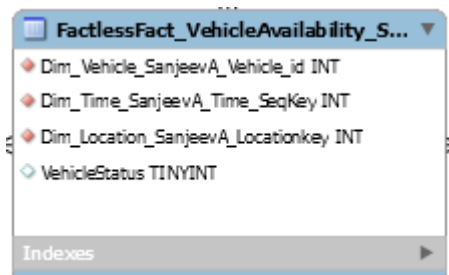
Ans. A Customer dimension covers Facebook, Google or email details as attributes.



- An Owner can be a Guest too. (This gets captured as one of the attribute in the Customer dimension table as shown above)

- You must capture the details of the listed cars in your design.

Ans. This is capture in the Vehicle availability Factless fact as shown below



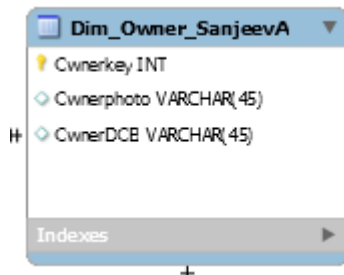
This has vehicle status which is basically a binary variable that showcases availability.

- A Host (when listing a car) provides information such as – license plate number, issuing country, state, photos of the car, location of the car, year, make, model, transmission, odometer, owner's photo, owner's date of birth, details of car availability, car description and car features

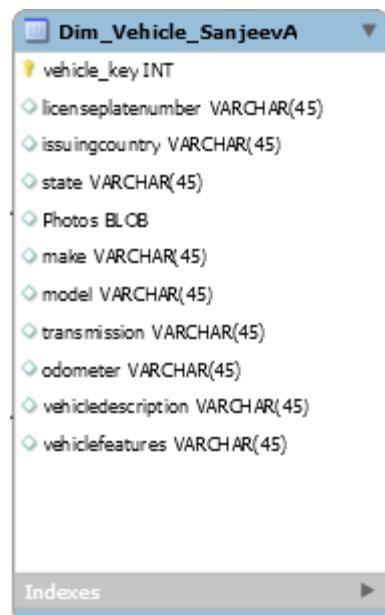
Ans. This captured in 4 dimensions (Owner, Vehicle, Location, Vehicle Price) and one fact on vehicle availability

All things related to vehicle in vehicle dimension, location stored separated in another dimension to enable search and availability as a fact. The details are as below:

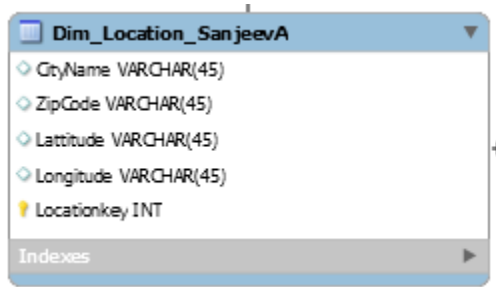
1. Owner



2. Vehicle Dimension

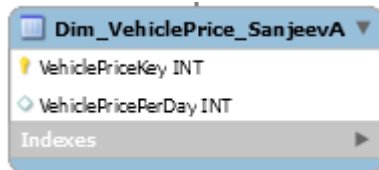


3. Location Dimension



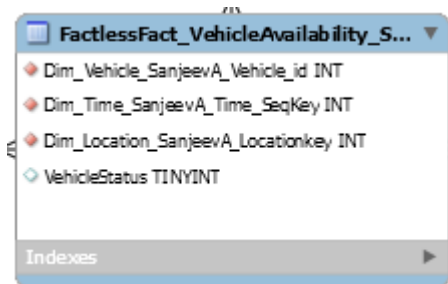
| | |
|-------------|-------------|
| CityName | VARCHAR(45) |
| ZipCode | VARCHAR(45) |
| Latitude | VARCHAR(45) |
| Longitude | VARCHAR(45) |
| Locationkey | INT |
| Indexes | |

4. Vehicle Price



| | |
|--------------------|-----|
| VehiclePriceKey | INT |
| VehiclePricePerDay | INT |
| Indexes | |

5. Factless facts on availability of Vehicle/car



| | |
|-----------------------------------|---------|
| Dim_Vehicle_SanjeevA_Vehicle_id | INT |
| Dim_Time_SanjeevA_Time_SeqKey | INT |
| Dim_Location_SanjeevA_Locationkey | INT |
| VehicleStatus | TINYINT |
| Indexes | |

Vehicle location here serves as car availability location and when mapped to booking id serves as a delivery location, they may or may not be same.

- The guest can leave reviews for the car, and about the host. Y

our design should be able to capture history of the reviews. o Your design should allow the business users to view reviews given per car, per guest, per host, per month etc.

Ans. Assuming reviews are stored with rating for vehicle and owner with ratings in review dimension. Then to capture a history of the review here I am using the effective date of Slowly changing dimension in a fact less fact table where.

| Fact_Historyofreview_SanjeevA | |
|--|-------------|
| Dim_Time_SanjeevA_Time_SeqKey | INT |
| Dim_Reviews_SanjeevA_ReviewId | INT |
| Dim_Cwner_SanjeevA_Cwnerid | INT |
| Dim_Vehicle_SanjeevA_Vehicle_id | INT |
| Dim_Time_SanjeevA_Time_EffectiveDateOfReview | INT |
| Dim_Customer_SanjeevA_CustomerKey | INT |
| MostRecent_review | VARCHAR(45) |
| Indexes | |

- Your design should capture car-booking details. This includes the number of days a car is booked for, the total amount billed to the guest, and details about the guest or the host for the transaction
 - Your design should allow the business users to run reports to get the total revenue/no of cars booked per guest, by the city, apartment zip, by region, by month etc.

Ans. A search query on the below table will be able to generate the above requirement

| Fact_Bookingdetails_SanjeevA | |
|---|-------------|
| Dim_Customer_SanjeevA_CustomerKey | INT |
| Dim_Location_SanjeevA_Locationkey | INT |
| Dim_VehiclePrice_SanjeevA_VehiclePriceKey | INT |
| Dim_Cwner_SanjeevA_Cwnerkey | INT |
| Dim_Time_SanjeevA_Time_SeqKey | INT |
| Dim_Vehicle_SanjeevA_vehicle_key | INT |
| numberofdays | VARCHAR(45) |
| totalamount | VARCHAR(45) |
| Indexes | |

| Dim_Time_Sanj... | |
|------------------|-------------|
| Time_SeqKey | INT |
| Month | VARCHAR(45) |
| Year | VARCHAR(45) |
| Day | VARCHAR(45) |
| Indexes | |