

Assumptions

Name: Hongliang Tang

ID: 27135519

Surrogate key assumptions:

Type_code is exact 6 characters.

type_num has up to 3 digits.

Check clauses & lookups:

is_open_24hours is either yes or no.

num_of_points has to be greater than 0.

v_type and lic_type has been limited to existing selections, can add or delete in the future.

model_transmission is restricted to two given selective choice. Can add or delete in the future.

Relations (include from Assignment1):

1. **All vehicles have a single driver sit**, we are not allowing driverless vehicles on our roads.

2. **Every Vehicle are produced by a particular manufacturer (must and only 1)**, we don't consider two or more manufacturer collaborate and produce the same vehicle.

3. There are new manufacturers registered in the local state, but they haven't started to produce vehicles (**manufacturer can produce minimum 0 vehicle**).

4. **the demerit can relate to minimum 0 offence.**

We have new demerit rule set up (eg. You cannot bring dog to the front sit while driving), and we currently don't have a corresponding offence record for this new demerit (the first offence case for this new demerit hasn't happened yet.).

5. According to the client **“Only one police officer can fill in and sign the offence notice.”**

6. As communicated by the client, *“every time a driver is suspended the details must be stored. We need to be able to access past suspensions to see what issues the driver may have had.”* **So, a driver can have many suspension records and we need store the history of the suspensions incurred by the driver (we need to see suspension details along with a driver's license number.)**

7. As pointed by the client **“we don’t want to record the history of officers in charge of a station, we only need for contact purposes, the officer currently in charge of the station”** and **“we want a history of assignments (which officers are assigned to which station and when)”**.

8. according to client “For each cancellation, the reason cancelled will be generated by the application/inserted by the user based on which demerit that leads to that cancellation, but we are not interested in recording which demerit code leads to that cancellation”

9.new engine type might not be used in any vehicle model yet.

10. vehicle model has 0 to many relationships to vehicle since new vehicle model might not be related to a vehicle existing and driving by someone. Therefore, vehicle model can have minimum 0 corresponding VEHICLE.