Assumptions for the Logical Model – Traffic Demerit System

1. Lookup Table:

Since our assignment states "Note that the local government authority has indicated that it needs flexibility in the design to be able to add new, and remove current, vehicle types as circumstances change." a lookup table is added named CLASSIFICATION.

- type_id is introduced as a surrogate key to give each additional types a unique identifier.
- classification_type is depicted as a natural key because it uniquely identifies an instance in a table.

2. Demerit point:

demerit_points is not a mandatory field as if cancellation_trigger is TRUE then it would not save any value for demerit_points and directly trigger license cancellation and vice versa.

3. Cancellation period:

cancellation_period is not mandatory as not all demerits lead to cancellation and for which they don't, NULL value will be stored.

4. Total Demerit Points:

Total_demerit_points is not a mandatory field as a driver who may have never committed an offence will have null value stored in it.

5. Manufacturer – Manufacturer Country – Relationship

Manufacturer Country to Manufacturer is a one to Zero many relation because a country with a certain ISO standard (world-wide standard) might not have a manufacturer or that manufacturer's car is not on the roads.

6. Data Types

I have taken assumption in data type with some logic as no information about data types were given.

7. Cancellation Period

Cancellation period is dropped from the CANCELLATION table and added to the demerit table as its required to record the period of cancellation in certain demerits.