Assignment 1B – MonH Assumptions

Updated assumptions from Assignment 1A:

- A truck class is only recorded if there is at least one truck/trailer purchased with that truck/trailer type.
- Not all trucks/trailers are assigned to a job (could be available but currently not assigned to a job).
- It is assumed that the time between receiving the quote and accepting/declining the quote is not of importance.
- Date and time are treated as a single attribute.
- For quote status, both rejected and not called back quote are regarded as unfulfilled.
- It is assumed that one class of truck/trailer can be assigned to multiple quotes.
- It is assumed that one type will fit into one class. In other words, one type cannot be assigned to more than one class.

Assumptions from Assignment 1B:

- A truck/trailer class may potentially cover zero truck/trailer types.
- We made it so that all name-based attributes (e.g., family name, given name, trailer manufacturer, etc.) are a maximum 50 characters long to allow flexibility for those that have longer names.
- Hire rates cannot exceed $999.99.
- The milage attributes in truck can be a maximum of 999,999 km.
- The cost of trucks and trailers do not exceed $999,999.99.
- job_no and quote_no can have a maximum value of 9999. This was decided based on the sample forms provided.
- All address-based attributes we decided to make them a maximum of 100 characters in length.
- We made the costs for job and quotes to be into the thousands range since those costs provided in the sample forms have values between $500-$999, signifying the need to possibly have costs over $1000.
- We made emp_no a maximum of three digits since we assumed that the company cannot exceed 999 employees.
- We made the licence numbers a variable-sized string of length 15 characters since licence numbers can vary from state-to-state.
- We made cust_no 7 digits long to support that case where the company may have many customers over its lifespan.
- We made the purpose_no a CHAR (not a NUMBER) because the sample forms show that they include "P" as a prefix. This is also a similar reasoning for combo_code.
- trailer_dimensions we set to 11 characters long, using the fixed CHAR data type because all values of this attribute in the sample form show the same structure, so we decided to assume this same structure will be used for all entries of this attribute. However, we decided to not store the " m" part of the dimensions as it provides no additional meaning to the store value (we already know its in metres).

- From this thread, MonH uses the VIN to identify vehicles rather than the registration number (https://edstem.org/au/courses/8864/discussion/971063?comment=2179242). As such, during the normalisation process, despite both of these attributes being involved in a candidate key, we used the VIN as the PK for the new relation instead of the truck's registration number).
- Assuming that if a COMBO is in the system, there must have at least one PURPOSE for it.
- Assuming that a PURPOSE may have no COMBOs assigned to it (e.g., when creating a brand new PURPOSE).
- In the company, it is possible that some trucks and trailers are not part of any combos.
- In Form (i), we depicted the data in the Class column to represent a particular "code". Hence, in the logical model, instead of using trailclass_class, we use trailclass_code to avoid confusion here.
- It is possible for a combo to not be assigned to a job.
- A PURPOSE may not be required by any QUOTEs.