1.4 Exclusion determinant dimension and temporal dimension

The outputs of this task are:

c) Two versions of star/snowflake schema diagrams.

d) 1. The reasons for the choice of determinant dimension(s) in your star schema, or the reason for its absence.

2. The reasons for the choice of SCD type(s) for any temporal dimensions in your star schema, or the reason for its absence.

e) An explanation of the differences between the two versions of star/snowflake schemas.

Note: *The above explanation must be consistent with your star schema diagram and based on the assignment scenario. Please have a maximum of 300 words for each explanation.*

The section justifies the reasons why we did not use determinant dimension and temporal dimension.

Absence of determinant dimension

A determinant dimension is one on which the fact measure relies on, so all data retrieval from DWs must include this dimension, lest the retrieval data is not reasonable. There is no specific key ID from a dimension that the fact measure needs to rely on, for one reason:

Because of the on the requirement of report from manager, we used the aggregated functions like `COUNT` or `SUM`, and the information of these functions does **NOT** rely on a single dimension. That is, without a specific dependence on a single dimension, we can still make reasonable data retrieval and analyse the fact measures (e.g., total count of booking records). Therefore, we did **NOT** include a determinant dimension.

Absence of temporal dimension

Incorporating temporal dimension allows the DWs to have a temporal aspect for records. It is a mechanisms for managing information that varies over time. Base on the scenario, attributes included dates are the dates of maintenance, accident, and booking. And the attributes attached with these dates will not evolve over time. For example, attributes like the cost of a specific maintenance record, number of seats for a specific car, and the car severity of a accident record do not change over time normally. Since the transaction time is its own single lifespan, it is reasonable to assume that dimensions are stable, i.e., their data do not change. And because of this, we do **NOT** include a temporal dimension to keep track of the evolution of dimensions, facts, and measures.

The difference between the two versions of star schema

- lower agedim to passenger dim
- lower monthdim to datedim
- add in maintenance dim