

5. Summarizability Problems:

- a. Non-Strict Customer dimension relationships: Because we simplify the design by combining anonymous customers with members and corporate customers, we have a non-strict relationship between Customer and Franchise as well as Customer and Calendar. This can be resolved by using a default Franchise and Calendar date. Alternatively, we could use a separate dimension for each type of customer and either a non-strict fact relationship or multiple fact tables.
- b. Incomplete dimensioning with Products: events don't have an equivalent for a product category so a default value is used for all events.
- c. Non-Strict dimension relationship for Calendar hierarchy: weeks must belong to a separate Calendar hierarchy from months and years.