

# Multidimensional Modeling for the ACME-Flying Use Case

## Conceptual Schema

- We do `LogBookMetrics` at a daily (`dateID`) granularity even though it's only requested monthly to avoid creating unnecessary dimensions.
- `month` granularity of the `TemporalDimension` differentiates months of different years. For example; June-2018 will not be grouped with June-2020.

## Logic Schema

- The syntax and language used are consistent with PostgreSQL.
- The attributes of both the fact and dimension tables were restricted to non null values for a more simple business logic required for reporting and analysis.
- `VARCHAR` data type was used for string attributes since it is a variable-length data type and it only uses storage space for the actual data stored.
- All the `dateID` attributes were set as `VARCHAR` data type since we want to avoid date validation issues and assume that performing date calculations or comparisons in the database will be infrequent.
- To the numerical attributes, the `INT` data type was assigned with 4 bytes of storage and for the numerical attributes that required decimal precision, the `FLOAT` data type was assigned to round decimals.