

Looker

1. Model

- The core element that defines how data is organized and how Looker should query it.
- Contains information about which database tables are used and how they are joined together.
- Organizes **Explores**, **Views**, and **Joins** for defining relationships between data tables.

2. Explore

- Defines a dataset that users can query.
- Provides access to data from one or more views (tables) with predefined joins and relationships.
- Manages which fields are exposed to users and how they can interact with the data.

3. View

- Represents a table or a derived table in the database.
- Defines dimensions, measures, and sets how data is modeled and transformed.
- A view can be based on either a physical table or a SQL query.

4. Fields

- **Dimensions:** Represent the individual columns or attributes in a view. They are typically non-aggregated fields (e.g., product name, customer ID).
- **Measures:** Represent aggregated fields, such as sums or counts (e.g., total revenue, order count).
- **Parameters:** Fields that allow users to change values that influence how a query is executed, often used in calculated measures or filters.
- **Calculated Fields:** Custom fields created by users or developers using LookML (Looker's modeling language) or SQL.

5. Joins

- Specifies relationships between views (tables) in Looker.
- Defines the join type (e.g., inner, left, outer) and the keys on which the join operates.
- Controls how data from multiple tables is combined in a query.

6. LookML (Looker's Modeling Language)

- The language used to define models, views, and explores.
- Contains metadata definitions for views, dimensions, measures, joins, and explores.
- Can be version-controlled and reused across models.

7. Dashboard

- A collection of saved visualizations (or Looks) displayed together on a single screen.
- Allows for creating interactive visualizations that users can filter and drill down into.
- Dashboards are built using tiles, which include individual charts, tables, or visualizations.

8. Look

- A saved query or report.
- Can be reused in dashboards or shared with others.
- Looks are built using the Explore interface and saved for future access.

9. Tile

- A single visualization or component within a dashboard.
- Tiles can represent charts, maps, tables, or text.
- Each tile can be linked to a Look or have its query defined independently.

10. Filter

- A mechanism to restrict the data returned in a query.
- Filters can be applied at the Explore level, dashboard level, or on individual Looks.
- They allow users to narrow down data interactively by attributes like date ranges or categories.

11. Data Group

- Used to define when data should be refreshed.
- Based on the freshness of the underlying database data, Looker can determine whether or not to cache a query result or rerun the query.

12. Derived Tables (Persistent Derived Tables - PDTs)

- Temporary tables created by SQL queries within the model.
- Persistent derived tables (PDTs) are cached in the database to improve performance by avoiding repeated query execution.

13. User Attributes

- Metadata associated with individual users or groups.
- Used to customize access to data, filter results, or personalize dashboards and reports.

14. Projects

- LookML is typically stored within a project.
- Projects contain the LookML files (model, view, explore) and allow for version control via Git integration.
- Used to manage different environments (e.g., development, production) and collaborative development workflows.

15. Connections

- Defines the database connections used by Looker to query data.
- Includes metadata like the connection string, credentials, and database type (e.g., BigQuery, PostgreSQL, Redshift).