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Fully Qualified Domain (FQDNs)

A domain is a data type with optional constraints. They are essentially just 'global' constraints.

A fully qualified domain is simply a domain whose name is unique, clearly understood, and includes the taxonomy hierarchy that it belongs to.

They are addresses used in DNS to locate hosts/services on the internet. Example of the complete DNS path to a host: mail.sales.example.com

Fully Qualified Table Names (FQTNs)

A fully qualified table name consists of three parts. The database name which the schema belongs to, the schema name which the table belongs to, and the actual table name → database.schema.table

Pinpoints exactly which table you mean in a multi-database environment.

Taxonomies

A **data taxonomy** is a way of organizing and classifying data.

hierarchical classification schemes (categories → subcategories → attributes) for data and metadata.

- Both FQDNs and FQTNs are hierarchical, absolute names used to remove ambiguity.
- Taxonomies are the controlled categories you attach to resources (domains or tables) to describe *what* the resource contains and *how* to treat it.
- FQDNs give a precise network address.
- FQTNs give a precise data address
- Taxonomies describe the meaning/role of that data address

FQDN: network-level but influence DB design choices; Using canonical hostnames reduces operational confusion.

FQTN: Eliminate ambiguity when identical table names exist in different databases or schemas; ensure reliable joins and cross-database queries; Improve deployability and maintainability

Overall More precise, clearer, more reliable, transparent, and scalable.

Data Taxanomies: Provide consistent business language (subject areas, data domains) so users across teams interpret table contents the same way.