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**DBT**



# Data Build Tools: DBT

**DBT** stands for Data Build Tool. It's an open-source command-line tool that enables data teams to collaboratively build, test, and document data transformation pipelines using SQL.

It operates on top of your data warehouse (Snowflake, BigQuery, Redshift, etc.), transforming raw data into usable models.

# Why DBT?

Data teams can write simple SQL queries to define transformations, making the pipeline easy to maintain.

DBT enables version control and collaboration using Git.

It comes with testing and documentation capabilities.

# DBT Components

**Models:** SQL files representing transformations.

**Sources:** Defining raw data tables from the data warehouse.

**Seeds:** CSV files loaded into the data warehouse.

**Tests:** Data quality checks written in SQL.

**Documentation:** Automatically generated documentation for your models and tests.

**Snapshots:** Creating historical snapshots of data.

# DBT Workflows

DBT pulls raw data from your data warehouse (e.g., Snowflake, Redshift, BigQuery).



Models are created using SQL to transform raw data into usable tables.



DBT orchestrates transformations, runs tests, and documents changes.

# DBT: Core or Cloud

## Core:

DBT Core is the open-source, command-line version of DBT. It's the fundamental engine that powers DBT's data transformation capabilities.

- Free & Open Source
- Command-Line Interface (CLI)
- Allows Local Development
- No built in Scheduling and Orchestration
- Version Control Integration Manual
- Support for Documentation & Testing
- Flexibility

## Cloud:

DBT Cloud is the managed, hosted version of DBT. It provides a web-based interface, integrates directly with your data warehouse, and adds enterprise-level features for convenience, scalability, and team collaboration.

- Managed Service
- Web-Based Interface
- Built-In Scheduling
- Collaboration & Team Features
- Integrated CI/CD
- Job Monitoring & Alerts
- Logging & Performance Tracking
- Automated Docs Hosting
- Pricing & Tiers

**Lets try some DBT**