**Lab Exercise 7 – Generate Documentation using dbt docs**

**Objective:**

In this exercise, you'll learn how to generate and view documentation for a dbt project using dbt Core. This includes creating documentation for models and sources, running the documentation generation process, and serving the documentation locally.

**Prerequisites**

* You have dbt Core installed locally.
* You have a dbt project set up and connected to a data warehouse (e.g., Snowflake).
* You have basic models and sources defined in your dbt project.

**Step 1: Add Descriptions and Tests in schema.yml**

The first step to generating useful documentation is to add descriptions, tests, and any other metadata to your models and sources.

1. **Add Descriptions and Tests to Your Model in schema.yml**

**Example File Location: models/ schema.yml**

version: 2

models:

- name: stg\_orders

description: "A staging model for orders data, which includes order details and statuses."

columns:

- name: order\_id

description: "Unique identifier for each order."

tests:

- not\_null

- unique

- name: customer\_id

description: "Identifier linking to the customers table."

tests:

- not\_null

- name: amount

description: "Total amount for the order."

tests:

- not\_null

sources:

- name: jaffle\_shop

database: your\_database\_name # Replace with your database name

schema: jaffle\_shop

tables:

- name: customers

description: "Source table for customer information."

columns:

- name: customer\_id

description: "Unique identifier for each customer."

tests:

- not\_null

- unique

**Explanation:**

* + **Descriptions**: Added for models and columns to provide context.
  + **Tests**: Applied not\_null and unique tests to key columns to ensure data integrity.
  + **Source Configuration**: customers is added as a source, with descriptions and tests.

**Step 2: Run dbt Models**

To ensure that all models and tests are set up correctly, run your models in dbt Core.

1. **Run the Models**:

dbt run

1. **Run the Tests**:

dbt test

This will:

* Execute the SQL models and create them in your data warehouse.
* Run the data tests defined in your schema.yml file, checking constraints like not\_null and unique.

**Step 3: Generate Documentation**

Once your models are defined and descriptions are added, you can generate the documentation site.

1. **Generate the Documentation**:

dbt docs generate

This command creates a JSON file in the target/ directory of your project, which dbt uses to serve a web-based documentation site.