**Data Flow & Architecture Diagram**

**1. Data Source (Input)**

* **MS Excel Files**  
  Understanding the data and what is required *(Raw data provided for analysis)*

**2. ETL (Extract, Transform, Load) Process**

* **Upload to Snowflake**
  + Load Excel/CSV files into **Snowflake Tables**
    - Bright Coffee Sales Analysis
* **Data Cleaning in Snowflake**
  + Created a new column: transaction\_time\_bucket to group transactions into 30-minute intervals (Or it can be 1 hour intervals).
  + Displayed data correctly: Cast unit\_price properly (some entries use commas, e.g., '3,1' should be converted to 3.1).
  + Performed arithmetic operators: Compute total\_amount = unit\_price \* transaction\_qty
  + Used SQL to group by product types, time buckets, etc.

**3. Storage**

* **Snowflake Data Warehouse**
  + Cleaned, transformed tables stored in **Snowflake under my projects**

**4. Data Analysis**

* **Export to CSV**
  + Cleaned Snowflake tables exported as .csv

**5. Reporting & Insight Layer**

* **Microsoft Excel**
  + Imported CSV files
  + Built **Pivot Tables**
  + Created **Charts & Graphs** for initial visualization

**6. Visualization & Presentation**

* **Canva**
  + Used Canva templates to build my report.
  + Used Tables created in snowflake to add as charts.
  + Compilled insights for recommendations.

**7. Reporting: Downloaded my report as a PDF file to be loaded on GitHub.**