

# Documentation of Data Sources and Transformations

## 1. Data Source (Zomato Data for Different Continents):

- Added a new column: **Continent**.
  - Combined all data into a single table (**Restaurant Details**).
  - Split the **Name.Address** column into two separate columns: **Name** and **Address**.
  - Moved the **Cuisines** column to generate a new table.
  - Cleaned the **City** column due to formatting issues in entries such as **Istanbul, Brasilia, São Paulo, Chatham\_Kent, Cedar Rapids\_Iowa City**. (correct values)
  - Checked for duplicates—none were found.
  - Removed null values from the **City** column.
- (All transformations were performed using Power Query.)*

## 2. Cuisines Table:

- **Columns:** Restaurant ID, Cuisine.
- Used **Power Query** to split the **Cuisines** column (since each row contained multiple values) and unpivoted the data so that each row has a single cuisine value. This ensured (**Restaurant ID, Cuisine**) pairs were unique.
- Created a new column (**Number of Cuisines**) using a **DAX formula** (using table view) to count the number of cuisines per restaurant. This helps in identifying restaurant diversity.
- Checked for duplicates—none were found.
- Null values were removed.

## 3. Country Code Table:

- **Columns:** Country Code, Country.
- Removed duplicates and null values using **Power Query**.

## 4. KPIs (Fact Table):

- Checked for duplicates—none were found.
- Removed null values from the **City** column.

- Extracted the **Has Table Booking** and **Has Online Delivery** columns(removed) to create a separate **Service** table using **Power Query**.

## 5. Service Table:

- **Columns:** Restaurant ID, Has Table Booking, Has Online Delivery.
- Checked for duplicates—none were found.
- In the **Table View**, hid the original columns (**Has Table Booking**, **Has Online Delivery**) from the report view.
- Created a new column **Services Types** (Online Booking, Table Booking, Both, or Neither) to categorize restaurants based on their service offerings. This helps identify restaurants providing more services, benefiting customers.

## 6. Measures:

- **Today's date:** Generates the current access date.
- **Least number of cuisines:** To identify the greatest number of cuisines a restaurant provides.
- **Most number of cuisines:** To identify the least number of cuisines a restaurant provides.
- **Average rating:** Computes the overall average rating.
- **Lowest rated restaurant:** Identify the lowest rate given to a restaurant.
- **Top rated restaurant:** Identify the highest rate given to a restaurant.
- **Maximum number of votes:** Identify the maximum number of votes given to a restaurant.
- **Minimum number of votes:** Identify the minimum number of votes given to a restaurant.
- **Most affordable avg cost of two:** Find the least avg cost (most affordable) restaurants.
- **Most expensive avg cost of two:** Find the highest avg cost (most expensive) restaurants.
- **Total Restaurants:** Calculates the total number of restaurants.